



U.S. Army Combined Arms Center

KEM

DEEP OPERATIONS

Theoretical Approaches to Fighting Deep

Edited by Jack D. Kem

DEEP OPERATIONS: THEORETICAL APPROACHES TO FIGHTING DEEP



LARGE-SCALE COMBAT
OPERATIONS SERIES
Army University Press



Original tear graphic: Designed by Layerace/Freepik, [freepik.com](https://www.freepik.com)

Original paper texture: Created by Freepik, [freepik.com](https://www.freepik.com)

Art and composite cover design: Dale E. Cordes, Army University Press

This book is part of *The US Army Large-Scale Combat Operations Series*, which includes:

Weaving the Tangled Web: Military Deception in Large-Scale Combat Operations

Bringing Order to Chaos: Historical Case Studies of Combined Arms Maneuver in Large-Scale Combat Operations

Lethal and Non-Lethal Fires: Historical Case Studies of Converging Cross-Domain Fires in Large-Scale Combat Operations

The Long Haul: Historical Case Studies of Sustainment in Large-Scale Combat Operations

Deep Maneuver: Historical Case Studies of Maneuver in Large-Scale Combat Operations

Into the Breach: Historical Case Studies of Mobility Operations in Large-Scale Combat Operations

Perceptions Are Reality: Historical Case Studies of Information Operations in Large-Scale Combat Operations

The Competitive Advantage: Historical Case Studies of Special Operations Forces in Large-Scale Combat Operations

The Last 100 Yards: the Crucible of Close Combat in Large-Scale Combat Operations

Maintaining the High Ground: The Profession and Ethic in Large-Scale Combat Operations

Deep Operations: Theoretical Approaches to Fighting Deep

Deep Operations
Theoretical Approaches
to Fighting Deep

Edited by
Jack D. Kem



Army University Press
Fort Leavenworth, Kansas

Library of Congress Cataloging-in-Publication Data

Names: Kem, Jack D., editor. | Army University Press (U.S.), issuing body.

Title: Deep operations: theoretical approaches to fighting deep | edited by Jack D. Kem.

Other titles: Theoretical approaches to fighting deep | US Army large-scale combat operations series.

Description: Fort Leavenworth, Kansas : Army University Press, 2021. | Series: US Army large-scale combat operations series | Includes bibliographical references.

Identifiers: LCCN 2021041795 (print) | LCCN 2021041796 (ebook) | ISBN 9781940804804 (paperback) | ISBN 9781940804804 (Adobe PDF).

Subjects: LCSH: Deep operations (Military science) | Effects-based operations (Military science) | Military art and science--United States | Military art and science--Soviet Union.

Classification: LCC U167.5.D38 D44 2021 (print) | LCC U167.5.D38 (ebook) | DDC 355.4--dc23/eng/20211007 | SUDOC D 110.2:D 36.

LC record available at <https://lcn.loc.gov/2021041795>.

LC ebook record available at <https://lcn.loc.gov/2021041796>.

November 2021



Army University Press publications cover a variety of military history topics. The views expressed in this Army University Press publication are those of the author(s) and not necessarily those of the Department of the Army or the Department of Defense. A full list of digital Army University Press publications is available at <https://www.armyupress.army.mil/Books/>.

The seal of the Army University Press authenticates this document as an official publication of the Army University Press. It is prohibited to use the Army University Press official seal on any republication without the express written permission of the Director of the Army University Press.

Editor
Diane R. Walker

Foreword

Since the Soviet Union's fall in 1989, the specter of large-scale ground combat against a peer adversary was remote. During the years following, the US Army found itself increasingly called upon to lead multinational operations in the lower to middle tiers of the range of military operations and conflict continuum. The events of 11 September 2001 led to more than fifteen years of intense focus on counterterrorism, counterinsurgency, and stability operations in Iraq and Afghanistan. An entire generation of Army leaders and soldiers was culturally imprinted by this experience. We emerged as an Army more capable in limited contingency operations than at any time in our nation's history, but the geopolitical landscape continues to shift and the risk of great power conflict is no longer a remote possibility.

While our Army focused on limited contingency operations in the Middle East and Southwest Asia, other regional and peer adversaries scrutinized US military processes and methods and adapted their own accordingly. As technology has proliferated and become accessible in even the most remote corners of the world, the US military's competitive advantage is being challenged across all of the warfighting domains. In the last decade, we have witnessed an emergent China, a revanchist and aggressive Russia, a menacing North Korea, and a cavalier Iranian regime. Each of these adversaries seeks to change the world order in their favor and contest US strategic interests abroad. The chance for war against a peer or regional near-peer adversary has increased exponentially, and we must rapidly shift our focus to successfully compete in all domains and across the full range of military operations.

Over the last two years, the US Army has rapidly shifted the focus of its doctrine, training, education, and leader development to increase readiness and capabilities to prevail in large-scale ground combat operations against peer and near-peer threats. Our new doctrine, Field Manual (FM) 3-0, *Operations*, dictates that the Army provide the joint force four unique strategic roles: shaping the security environment, preventing conflict, prevailing in large-scale combat operations, and consolidating gains to make temporary success permanent.

To enable this shift of focus, the Army is now attempting to change its culture shaped by more than fifteen years of persistent limited-contingency operations. Leaders must recognize that the hard-won wisdom of the Iraq and Afghanistan wars is important to retain but does not fully square with the exponential lethality, hyperactive chaos, and accelerated tempo of the multi-domain battlefield when facing a peer or near-peer adversary.

To emphasize the importance of the Army's continued preparation for large-scale combat operations, the US Army Combined Arms Center has published these volumes of *The US Army Large-Scale Combat Operations Series* book set. The intent is to expand the knowledge and understanding of the contemporary issues the US Army faces by tapping our organizational memory to illuminate the future. The reader should reflect on these case studies to analyze each situation, identify the doctrines at play, evaluate leaders' actions, and determine what differentiated success from failure. Use them as a mechanism for discussion, debate, and intellectual examination of lessons of the past and their application to today's doctrine, organization, and training to best prepare the Army for large-scale combat. Relevant answers and tangible reminders of what makes us the world's greatest land power await in the stories of these volumes.

Prepared for War!

Michael D. Lundy
Lieutenant General, US Army
Commanding General
US Army Combined Arms Center
October 2018

Contents

Foreword	v
Illustrations	ix
Introduction	
by Jack D. Kem.....	1
Chapter 1—The Foundations of Deep Strategy	
by Georgii Samoilovich Isserson	15
Chapter 2—The Soviet Theory of Deep Operations	
by Earl F. Ziemke.....	41
Chapter 3—Soviet Operational Formation for Battle: A Perspective	
by Lt. Col. David M. Glantz	59
Chapter 4—Why the OMG?	
by Maj. Henry S. Shields, US Air Force Reserve.....	75
Chapter 5—A Look at Soviet Deep Operations	
by Maj. Elvis E. Blumenstock, US Marine Corps	85
Chapter 6—Extending the Battlefield	
by General Donn M. Starry.....	107
Chapter 7—Maneuver in the Deep Battle	
by Lt. Col. L. D. Holder.....	129
Chapter 8—A Look at Deep Operations: The Option of Deep Maneuver	
by Maj. David C. Mock	139
Chapter 9—A Theoretical Perspective of AirLand Battle Doctrine	
by Maj. Wayne M. Hall.....	163
Chapter 10—Offensive Tactical Operations	
by Maj. Gen. L. D. Holder	179
Chapter 11—Operational Maneuver: From the American Civil War to the OMG	
by Lt. Col. James G. Snodgrass	191
Chapter 12—Operational Art: How Clausewitz and Isserson Turn American Strategy into Tactical Action	
by William J. Denn	217

Chapter 13—Deep Maneuver and Operational Art
in the Twenty-First Century Military Canon
by Robert F. Baumann 223

Illustrations

Figure 0.1. The Deep Operation for Penetrating and Crushing a Front....	4
Figure 0.2. Operation Desert Storm Map.....	5
Figure 1.1. Development of Tank and Aircraft Capabilities.....	19
Figure 1.2. Entry in Depth into a Modern Operation.....	32
Figure 1.3. The Deep Operation for Penetrating and Crushing a Front..	35
Figure 3.1. Mikhail N. Tukhachevsky.....	61
Figure 3.2. Georgi K. Zhukov.....	67
Figure 4.1. Role of an OMG.....	76
Figure 4.2. The OMG does not win the war by itself.....	80
Figure 4.3. Soviet Offensive Operations during the Last Years of World War II.....	82
Figure 4.4. Future Role for OMGs.....	84
Figure 6.1. A Substantial Step toward Future Capabilities.....	109
Figure 6.2. The Second-Echelon Threat.....	111
Figure 6.3. See and Attack in Depth.....	113
Figure 6.4. The Problem.....	115
Figure 6.5. The Integrated Battle: The Deep Battle.....	117
Figure 6.6. The Integrated Battle: The Corps Battle.....	118
Figure 6.7. The Integrated Battle: 24 Hours.....	118
Figure 6.8. The Integrated Battle: 12 Hours.....	119
Figure 6.9. The Integrated Battle: Outcome.....	120
Figure 6.10. Effect of Interdiction.....	121
Figure 6.11. Why Deep Attack? Without Interdiction.....	121
Figure 6.12. Why Deep Attack? With Interdiction.....	122
Figure 6.13. Why Deep Attack? With Interdiction and Attack.....	122
Figure 6.14. Notional Fire Support Element.....	126
Figure 10.1. The Offensive Framework.....	182

Introduction

Jack D. Kem

In 1973, Russell F. Weigley wrote an interesting book titled *The American Way of War: A History of United States Strategy and Policy*. In this book, he concluded that the “American Way of War” characteristically followed the military strategy of annihilation—the “overthrow of the enemy’s military power.”¹ Weigley further stated that American military power was “great enough to make the destruction of the country’s enemies an object worth contemplating,” a historical theme developed in American strategy that focused on how to “secure victory in its desired fullness” without jeopardizing or degrading the act of waging war.²

This volume of *The US Army Large-Scale Combat Operations Series* addresses one way the US Army has approached accomplishing this issue—to gain an overwhelming victory over an enemy without paying a cost that is so high as to make the approach untenable. At the same time, it discusses how the Soviets, and now the Russians, have dealt with the same issue.

This approach is titled *Deep Operations*, which is distinct from and more comprehensive than the previous LSCO volume of *Deep Maneuver*. The Deep Maneuver discussion focused on historical case studies that demonstrated the utility of maneuver operations to achieve an advantage over enemy forces and capabilities before adversaries could use their capabilities against friendly forces. This *Deep Operations* volume addresses the conceptual underpinning of Deep Operations, and compares and contrasts the US and Soviet methodologies for Deep Operations. It provides readings that outline the theoretical approach to conducting deep operations that evolved primarily through the 1980s to address fighting large-scale combat operations that relied heavily upon “extending operations in time, space, and purpose in order to gain an advantage over potential peer enemies—in highly contested, lethal environments—in order to prevail and win.”³

The Soviet approach, developed in the 1930s by Soviet military theorists Mikhail N. Tukhachevsky and Georgii S. Isserson, favored echelonment of formations to achieve mass, reinforce success, effect a penetration, and then conduct an encirclement—and was heavily dependent on correlation of forces and producing mass at a critical point of the battle. This theory relied heavily on the ideas of French theorist Antoine-Henri Jomini, who was perhaps the most influential military thinker of the nineteenth century. To Jomini, a successful strategy depended upon “identifying the

decisive points in the theatre of war and then concentrating the mass of available forces against them and the enemy's lines of communications."⁴

The US approach was developed as a result of intense debate after the 1976 Field Manual (FM) 100-5, *Operations*, was published. Almost immediately, the 1976 FM 100-5 was criticized for relying on the "active defense" and focusing on Europe. Critics said it included "too much emphasis on the defense at the expense of the offense," an orientation on "force ratios and the destruction of enemy forces," and a narrow focus on the European theater.⁵ The results of these debates were the 1982 and 1986 editions of FM 100-5, which prioritized the offense, the operational level of war, and the AirLand Battle concepts—focused on agility, initiative, depth, and synchronization to extend operations in time, space, and purpose and, therefore, create fog and friction for the enemy. This approach relied heavily on the ideas of Prussian theorist Carl von Clausewitz, a contemporary of Jomini who was skeptical of early nineteenth century military thinking and developed his own theories of the nature and conduct of war.⁶

This volume explores the critical timeframe when the AirLand Battle concepts were developed, as well as the timeframe for the Soviet concepts of Deep Operations. Some of the lessons from that time are irrelevant, but many are not. There may not be a propensity for the US military to approach warfighting from a Clausewitzian perspective of fog and friction, but I believe there is an undercurrent—a preference for thinking of war as operations that are dynamic and ever-changing; no plan can account for all potential variables. For the Soviets—and now the Russians—I also believe there is a different undercurrent to think of war from the Jominian perspective as a methodical and mathematical approach—a preference for thinking in terms of operations planned in great detail to incorporate all potential variations. On the ground, both approaches can appear similar—but have completely different theoretical bases and influence how both countries will fight in the future. The US Army may be well served to examine these theoretical bases and gain insight into not only what these deep operations look like, but also why these are done in a certain way. We should look at how operations were done in the past to gain insight into not only what an adversary is doing, but why they are doing operations in a certain way.

Two Theoretical Approaches to Deep Operations

The Soviet approach has been to echelon forces along a broad front, reinforce success when it occurs, effect a penetration, then conduct an encirclement of forces. This approach is highly reliant upon balancing the

two competing Principles of War of Mass and Economy of Force. This approach is similar to Jomini's understanding of how to conduct warfare—that mastering military campaigns is a matter of mastering the science.

Jomini observed that war is a simple matter that requires an ordinary level of intelligence and consideration. In spite of this simplicity, many military leaders are unable to understand the simple concepts because they dwell on “accessory details” and do not focus on the important “first causes of war.” Jomini stated, “Two very different things must exist in a man to make him a general: he must know how to arrange a good plan of operation, and how to carry it to a successful termination.”⁷

The US approach to warfare—or, at least for Deep Operations—has similarities to the approach that Carl von Clausewitz described, with war characterized by fog and friction that necessitate greater agility, initiative, depth, and synchronization. His initial premise was that war is “merely a continuation of policy by other means” and that even though war is simple on paper, the reality of war is difficult and characterized by friction and fog.⁸ Clausewitz also discussed the importance of understanding chance that results from this friction and fog: “Fog can prevent the enemy from being seen in time, a gun from firing when it should, a report from reaching the commanding officer.”⁹

The following examples illustrate the two approaches to Deep Operations. The first of the theoretical approaches is from Georgii Samoilovich Isserson's *The Evolution of Operational Art*. Figure 0.1 on the next page outlines the Deep Operations approach of massing forces along a broad front through echelonment, reinforcing success, effecting a penetration, then conducting an encirclement or “crushing” the forces deep in the enemy reserves. Isserson explained it this way:

A modern deep breakthrough essentially requires two operational assault echelons: an attack echelon for breaching a front tactically; and a breakthrough echelon for inflicting a depth-to-depth blow to shatter and crush enemy resistance through the entire operational depth. Both echelons retain their own internal tactical echelonment.¹⁰

Depth is a key component of this approach for a number of reasons: depth of formations is essential for completing a decisive breakthrough, but is also important for maintaining the flexibility to breach fortified defensive belts or launching a frontal blow if the situation develops where this is the appropriate response. As a result, success is heavily dependent

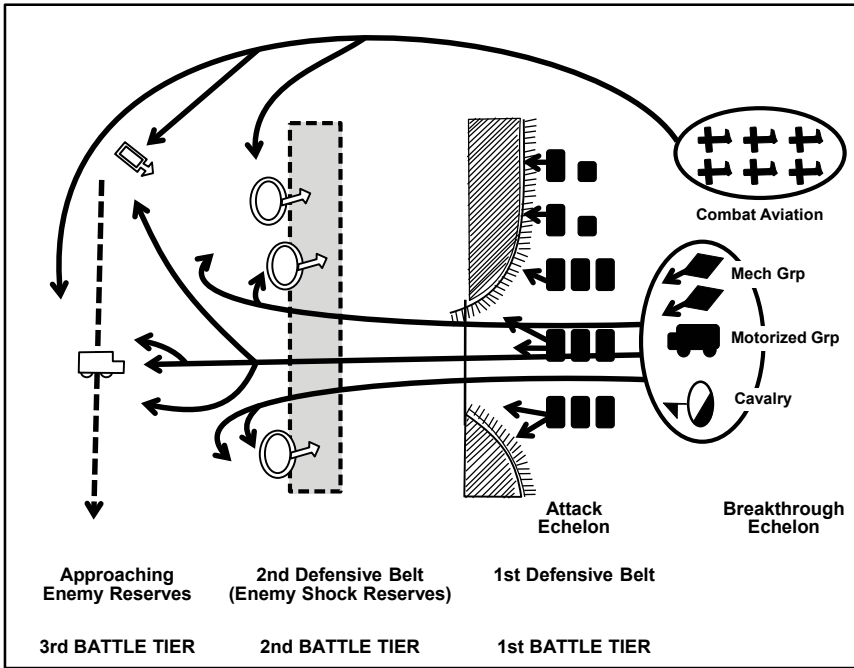


Figure 0.1. The Deep Operation for Penetrating and Crushing a Front. From Georgii Samoilovich Isserson, *The Evolution of Operational Art*.

on having deep and powerful echelons that can respond to different conditions in order to completely destroy the opponent.

This example demonstrates the concept of focusing on the main effort and pushing aside “accessory details” enabled by the arrangement of “a good plan of operation” that necessitates carrying the plan to a “successful termination.”¹¹ It is characteristic of the Jominian theory of Deep Operations—gaining an advantage and pushing through with superior numbers.

The second example shown in Figure 0.2 is from Operation Desert Storm. The 1982 FM 100-5, *Operations*, described the initial concept:

Deep battle opens opportunities for decisive action by reducing the enemy’s closure rate and creating periods of friendly superiority in order to gain or to retain the initiative. If the enemy is prevented from reinforcing his committed forces, even temporarily, he may be defeated piecemeal.¹²

The US Army concept of Deep Battle focuses on limiting the options the enemy has by separating his echelons and limiting the enemy’s ability to mass forces. In the offense, this is accomplished by blocking enemy re-

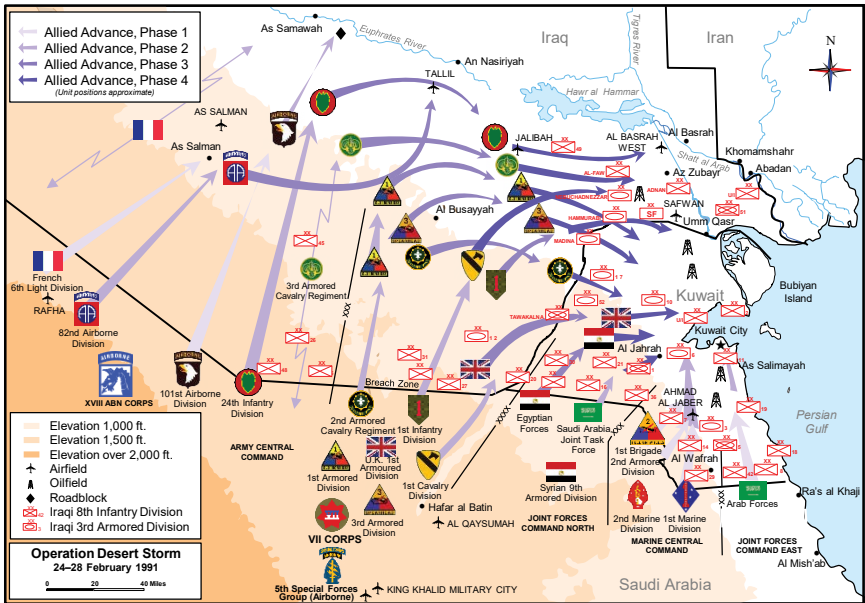


Figure 0.2. Operation Desert Storm Map, 24–28 February 1991. Courtesy of the US Army Center of Military History.

serves, isolating and immobilizing main forces, and preventing the escape of defending forces. In the defense, Deep Battle concentrates on limiting the enemy’s ability to mass forces by degrading fire support, command and control, communications, combat support, and combat service support. These actions are intended to allow US forces to maintain momentum while preventing the enemy from massing forces and effects.

The Desert Storm campaign featured a deception plan that led the Iraqis to believe the Coalition offensive was coming across the Kuwait-Saudi border. The offensive’s main effort, however, was a deep attack from the Coalition left flank into the Iraqi rear area. That attack focused on degrading the enemy’s capability to respond—creating friction and fog in the mind of the commander to prevent the commander from responding while separating his echelons, degrading his combat power, and creating windows of opportunity for friendly action—gaining an advantage by creating fog and friction and showing initiative to defeat the enemy.

Balancing the Principles of War

Both of these approaches address how operational forces must balance three Principles of War: Mass, Economy of Force, and Unity of Command.¹³

The first Principle is Mass: “concentrate the effects of combat power at the decisive place and time.”¹⁴ The US AirLand Battle approach—an offensive orientation to conduct deep operations—was intended to create friction and fog on the enemy so an attack could take place anywhere (and everywhere) on the battlefield that would diffuse the enemy’s capability to mass combat power. This US approach in Desert Storm heavily relied on agility, initiative, depth, and synchronization to achieve mass through simultaneity. The Soviet approach used the build-up of forces massed along a broad front with the second echelon prepared to conduct an attack at a perceived point of weakness. The Soviet approach required superior numbers of forces and discipline for success. Interestingly, the evolution of FM 100-5 (starting with 1976) addressed the problem of how to “fight outnumbered and win,” whereas this statement is often attributed to Russian leader Joseph Stalin: “Quantity has a quality all its own.”

The second related Principle of War is Economy of Force: “allocate minimum-essential combat power to secondary efforts.”¹⁵ A force that is outnumbered must, by necessity, emphasize economy of force to generate combat power to achieve mass. The US AirLand Battle was designed to create a dilemma for the enemy by increasing the threat to secondary efforts throughout the battlefield, thereby increasing the definition of minimum-essential combat power required to protect those secondary efforts. The Soviet approach was, at least on the surface, to create mass along a broad front and reinforce success—accepting risk to the broad front once a penetration was inevitable. The reliance on multiple echelons across a wide frontage to support this concept did not support economy of force along that front until weakness was detected.

The third related Principle of War is Unity of Command: “for every objective, ensure unity of effort under one responsible commander.”¹⁶ The US approach depends highly upon developing the commander’s intent and understanding of broad guidance and mission orders to enable subordinate commanders to make fast, independent decisions based on how the situation develops.¹⁷ As such, the US approach has used centralized direction and decentralized execution of higher commander intent. The Soviet approach for deep operations emphasizes “the urgent necessity for regulating methods of organizing and conducting deep operations with exactness and within the limits prescribed by regulation.”¹⁸ Isserson noted that conducting a Deep Operation requires a “control system [that] must be governed by exact regulations.”¹⁹ As such, the Soviet approach has used centralized direction and centralized execution for Deep Operations.

Defining Deep Operations in US Army Doctrine

The term Deep Operations has not been consistently applied in US Army doctrine. The 1976 and 1982 versions of FM 100-5, *Operations*, did not explicitly define Deep Operations. The 1982 FM 100-5 described the deep battle concept as a sustained series of disruptions aimed at enemy forces “in depth.”²⁰ This US Army doctrine acknowledged that, in either attack or defense, deep actions aimed at enemy forces not yet in contact needed to be “timely and well-executed,” in order to be effective in the long term.²¹ The 1982 version then pointed to history to support the argument, highlighting that the US, German, and Israeli campaign plans “historically made use of long-range interdiction to gain local battlefield advantages.”²² Deep battle would prevent an enemy from building support frameworks for sustained engagement and stopped the creation of “windows of opportunity for offensive actions that allow us to defeat him in detail.”²³

The 1982 FM 100-5 described the offensive deep battle as having three primary tasks: isolate, immobilize, and weaken “defenders in depth.”²⁴ Throughout sustained attacks, the offense sustains momentum by “preventing the reorganization of coherent defenses, by blocking the movement of enemy reserves, and by preventing the escape of defending units.”²⁵ The defensive agenda, however, focused on one overarching goal: preventing any efforts to concentrate “overwhelming combat power.”²⁶ Through separation and disruption efforts, attacking echelons of enemy forces lose any perceived primacy via sustained attacks. Defense is also maintained by protecting the defender’s maneuver and a series of degradations to the fire support, command and control, communications, combat support, and continued service support of the enemy.²⁷

The 1986 version of FM 100-5, *Operations*, expanded the definition of Deep Operations to apply at the operational and tactical level. At both levels of war, Deep Operations were designed to create conditions for future victory. Operational-level Deep Operations focused on isolating battles and influencing the timing, location, and forces for future fights; tactical-level Deep Operations assured tactical advantage for future engagements. At both levels, the intent was to address enemy forces not previously in contact to influence their introduction into the close fight. The 1986 FM 100-5 acknowledged that this approach was not new in the history of warfare or previous US Army operations, which frequently focused on interdicting an enemy’s capability to commit forces at “times and places of his choosing.”²⁸

The 1993 FM 100-5, *Operations*, continued to expand the definition to address enemy capabilities beyond the close fight, but instead at “all levels with fires, maneuver, and leadership” through either a direct attack or threat of attack.²⁹ Deep Operations not only had an impact on the close fight, but expanded the space and time of the battlefield and facilitated the overall mission success and protection of friendly forces. Orchestrating Deep Operations, through a direct attack or threat of attack, extended the battlefield by nullifying enemy capabilities, such as firepower, command and control, supplies, and morale. As a result, Deep Operations could either cause the defeat of the enemy or prevent the enemy from achieving intended objectives.³⁰

Surprisingly, the term Deep Operations does not appear in subsequent Army *Operations* Manuals (the 2001, 2008, or 2017 versions of FM 3-0). In September 2016, the US Army published Army Techniques Publication (ATP) 3-94.2, *Deep Operations*. This publication defined Deep Operations as combined arms operations that set the conditions for transitions that were normally planned at the division and corps levels.³¹ The purpose of Deep Operations was not merely to attack in depth, but to influence where the enemy could commit forces on the battlefield by different techniques such as divert, disrupt, delay and destroy.³² Interestingly, the current approach to Deep Operations focuses more on limiting the enemy’s ability to attack at a chosen time and place rather than defeating the enemy as noted in previous *Operations* doctrine.

Chapter Summaries

The theoretical background outlined above is the basis for this *Deep Operations* volume. There are three major sections to this book: the first five articles provide insight into the Soviet approach to Deep Operations; the second five articles outline the US approach to Deep Operations; and the final three articles are intended to provide clarity on the theory and future implications for Deep Operations. Most of these chapters were written in the 1980s, when the US Army was transitioning from the “active defense” to AirLand Battle as the warfighting operational concept.

The first section starts with an excerpt from Georgii Samoilovich Isserson’s 1936 book *The Evolution of Operational Art*. This excerpt, titled “The Foundations of Deep Strategy,” provides insight into the Soviet Union’s approach to military theory prior to the Second World War. Many prominent Soviet military theorists such as Tukhachevsky and V. K. Triandafillov did not survive to see their theories come to fruition, but all were enormously influential.

In 1983, Earl Ziemke published “The Soviet Theory of Deep Operations” in *Parameters*. This article discusses the Soviet deep operations theory that was developed by 1936 then converted into Soviet doctrine and field regulations. The concept of echelonment—air, combined arms shock armies, breakthrough forces, and reserve forces was implemented during World War II then developed to include encirclement and annihilation of the enemy as a basic concept in Soviet warfare.

The third chapter, written in 1983 by Lt. Col. David M. Glantz, was published in *Military Review*. Glantz describes the continued evolution of Soviet mobile groups and the evolution of Soviet Front and army-level organizations. Glantz also describes how the Soviet organizations took the lessons of the Second World War during the period of 1946–1954 to refine the model of creating penetrations and exploiting success to the operational depth of the enemy.

In the 1985 *Military Review*, Maj. Henry Shields wrote “Why the OMG?,” the fourth chapter in this volume. The Operational Maneuver Group, or OMG, developed the concept of shock armies against NATO foes, which exploited potential penetrations to go deep and attack objectives in NATO’s rear areas.

Maj. Elvis Blumenstock provided additional clarity on the OMG concept with his thesis titled “A Look at Soviet Deep Operations: Is There an Amphibious Operational Maneuver Group in the Marine Corps Future?” His thesis, written at the Marine Corps Command and Staff Course, addressed how this concept could be adopted by the US Marine Corps. The thesis excerpt in Chapter 5 describes how the Soviets used the OMG concept in the Manchurian Campaign along the Trans Baikal Front. The information is included here because of the “complexity, size, speed, depth, and remarkable success of this campaign.”

The second section of this volume includes five chapters on the US answer to Deep Operations. Chapter 6 is the 1981 *Military Review* article by General Donn Starry titled “Extending the Battlefield.” This article, written prior to the release of the 1982 FM 100-5, clearly shows the shift in focus at senior Army levels to transition from the “Active Defense” characterized in the 1976 FM 100-5 to the AirLand Battle to take the fight to the enemy. In this article, Starry notes that “deep attack is not a luxury; it is an absolute necessity to winning.”

Lt. Col. L. D. Holder expands on the themes in Starry’s article in his 1982 *Military Review* commentary titled “Maneuver in the Deep Battle.” Published shortly after the release of the 1982 FM 100-5, Holder

describes the inherent risks in deep attacks—and the obvious potential for success by creating a dilemma that causes the enemy to tie up reserves, relocate command posts, and deal with confusion and uncertainty created by Deep Operations.

The eighth chapter is an excerpt from a 1987 School of Advanced Military Studies monograph written by Maj. David Mock. Mock describes conducting deep operations from the AirLand Battle doctrine as consistent with our “American Way of War” and with the writings of Clausewitz. Mock also reinforces the importance of seizing initiative, as well as simultaneously fighting the three interrelated battles of close, deep, and rear.

Maj. Wayne M. Hall wrote “A Theoretical Perspective of AirLand Battle Doctrine” in the March 1986 *Military Review*, which is included as Chapter 9 in this volume. Hall emphasizes the moral domain of war, which is “always the collision of two living forces. He also notes that AirLand Battle doctrine not only addresses deep, close, and rear, but also suggests relationships between engagements, battles, and campaigns, as well as tactics, operations, and strategy. Finally, Hall also notes the emphatic underscoring of the offensive in the doctrine.

The tenth chapter is an additional article by L. D. Holder—written in 1993 when he was a major general. This *Military Review* article analyzes how AirLand Battle incorporated some past United Kingdom and German offensive theories, while also incorporating Tukhachevsky’s “conception of simultaneous attacks in depth.” Holder notes the importance of initiative as a tenet of AirLand Battle, and comments that the Deep Operation and the close operation may have different objectives—and the deep operation may be the main effort.

The third section of this volume contains three articles to provide clarity on the theory and future implications for Deep Operations. Chapter 11 is an excerpt from a 1988 School for Advanced Military Studies monograph titled “Operational Maneuver: From the American Civil War to the OMG.” Lt. Col. James Snodgrass provides some interesting historical parallels to the concept of the Operational Maneuver Group. He comments, “Nothing succeeds like success, and this mobile, raiding, deep attack concept has seen several successes which enhance its popularity and use—from the aforementioned American Civil War raids to isolated Russian use by Gurko and Mishchenko to Budyenny’s Russian Civil War deep exploits to the German *Blitzkrieg* to the Russian mobile groups of World War II.”³³

Chapter 12 is a short article by Maj. William Denn titled “Operational Art: How Clausewitz and Isserson Turn American Strategy into Tactical

Action.” This 2016 article, written for the Modern War Institute, explicitly connects the concepts of Clausewitz to Tukhachevsky and to our current doctrine of warfighting.

The last chapter in this volume was written in 2019 by Robert Baumann, a noted Russian expert. This chapter, titled “Deep Maneuver and Operational Art in the Twenty-First Century Military Canon” provides overarching context for the evolution of Soviet and Military Operational Art—and describes some of the continuing evolution that is taking place today. Baumann particularly notes the impact of technology on military doctrine.

Summary

A quote frequently attributed to Mark Twain is that “History does not repeat itself, but it rhymes.” Since the 1930s when Isserson wrote *The Evolution of Operational Art*, the Soviets—and the Russians—have evolved their warfighting doctrine. Accordingly, the United States has made and continues to make changes in its doctrinal approach to warfighting since the development of the AirLand Battle concept in the 1980s. The premise of this volume is that there is a general preference for the two sides to approach Deep Operations in fundamentally different ways, and these undercurrents may manifest themselves in future operations.

For example, the Russian approach of echeloning capabilities along a wide front, reinforcing success, effecting a penetration, then conducting an encirclement or mass destruction seems to be an appropriate approach for conducting large-scale combat operations—and cyber operations as well as multi-domain operations. The US Army may be well served to look at how operations were done in the past so we can gain insight into not only what an adversary is doing, but why they are doing operations in a certain way.

Nonetheless, the purpose of this volume is to create grist for the mill—to look at operations in a slightly different way to achieve insight for the future. As noted previously, many of these writings were published in the 1980s, a time when the Army was adjusting from the concept of the “active defense” to a greater orientation on how to have an offensive mindset, while still outnumbered. Today, the US Army is similarly shifting the operational concept from unified land operations to multi-domain operations. Accordingly, our adversaries are making similar adjustments to their operational concepts to “break free” from the past and become less predictable.

We owe thanks to the staff of Army University Press for putting this book into physical and electronic form as part of *The US Army Large-Scale Combat Operations Series* book set. The staff at Army University

Press is phenomenal! As the general editor for this volume, I alone am responsible for errors, omission, or limitations of this book.

About the Author

Colonel (Retired) Jack D. Kem is Dean of Academics and Professor at the US Army Command and General Staff College. A retired Military Intelligence colonel, he previously served in the Senior Executive Service as the Deputy to the Commander, NATO Training Mission–Afghanistan from 2009 to 2011. He is a graduate of the Air Command and Staff College and the Army War College. His dissertation from North Carolina State University studied the role of public ethics in Russia, Poland, and the United States.

Notes

1. Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington, IN: Indiana University Press, 1973), xxii.
2. Weigley, xxii.
3. Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: 2017), Foreword.
4. Antoine-Henri de Jomini, *The Art of War* (1838; repr., London: Greenhill Books, 1992), viii.
5. Paul H. Hebert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations* (Fort Leavenworth, KS, CSI Press, 1988), 96.
6. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (1832; repr., Princeton NJ: Princeton University Press, 1976), 3.
7. Jomini, *The Art of War*, 327.
8. Clausewitz, *On War*, 87.
9. Clausewitz, 119–20.
10. Georgii Samoilovich Isserson, *The Evolution of Operational Art*, trans. Bruce Menning (Fort Leavenworth, KS: CSI Press, 2013), 66.
11. Jomini, *The Art of War*, 237.
12. Department of the Army, Field Manual (FM) 100-5 (Washington, DC: 1982), 7-14.
13. Department of the Army, Army Doctrine Publication (ADP) 5-0, *The Operations Process* (Washington, DC: 2019), 2-3.
14. Department of the Army, 2-3.
15. Department of the Army, 2-3.
16. Department of the Army, 2-3.
17. Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1986), 7.
18. Isserson, *The Evolution of Operational Art*, 73.
19. Isserson, 74.
20. Department of the Army, FM 100-5 (1982), 7-13.
21. Department of the Army, 7-13.
22. Department of the Army, 7-13.
23. Department of the Army, 7-13.
24. Department of the Army, 7-14.
25. Department of the Army, 7-14.
26. Department of the Army, 7-14.
27. Department of the Army, 7-14.
28. Department of the Army, FM (1986), 19.
29. Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1993), 6-14.
30. Department of the Army, 6-14.

31. Department of the Army, Army Techniques Publication (ATP) 3-94.2, *Deep Operations* (Washington, DC: 2016), 1-4).

32. Department of the Army, 1-4-1-5).

33. Lt. Col. James G. Snodgrass, “Operational Maneuver: From the American Civil War to the OMG” (monograph, School of Advanced Military Studies, US Army Command and General Staff College, Fort Leavenworth, KS, February 1988).

Chapter 1

The Foundations of Deep Strategy

Georgii Samoilovich Isserson

The basic principles of our military preparation, of our operational art, are the principles of the offensive.

The Evolving Nature of Operations in Future War

The basis for our theory of operational art is the concept of the most decisive offensive operation. The whole nature of future war testifies to the grand scope of this operation, thereby determining the further evolution of its main features. The historical character of operations has evolved along two main lines: lateral extension across a front, and distribution in depth. The development of the first feature, lateral extension across a front, reached its apogee during the World War of 1914–18. Armed combat filled an entire continuous front to merge combat efforts into a single line that was extended laterally to its full geographical limits.

We have no reason to assume that future war will reverse the evolution of this feature. We cannot be party to the contradictions inherent in bourgeois theories about small professional armies. In the opinion of their supporters, these theories would reverse the development of the above-mentioned feature and re-introduce the interrupted front with separate points for the application of combat efforts in space. The course of history cannot be reversed, and we must assume the opposite. That is, we must assume that operations in future war will be all the more proliferate along extended lateral fronts, as long as geographical conditions permit. (. . .)

In future war, the “front-against-front” situation should not appear as something unexpected for our operational art, as was the case with the Germans in 1914. It should be recognized as a rather common phenomenon within the dynamic of transforming decisive enveloping maneuvers into equally decisive frontal blows against the entire depths of the enemy’s disposition.

This problem brings us to one of the main challenges for contemporary operational art. At issue is the evolution of the second feature of an operation, that is, its distribution in depth. As we have seen, not everything

This chapter is an excerpt from Georgii Samoilovich Isserson, *The Evolution of Operational Art*, trans. Bruce W. Menning (Fort Leavenworth, KS: Combat Studies Institute Press, 2013), 43–70.

was accomplished in this respect during the maneuver period of the World War. There was, indeed, a chain of interrelated battles, but it was not continuous. Its combat actions did not fill the entire depth of the offensive. In future war, the nature of the operation will evolve in accordance with this very feature of depth. Of course, we have to account for much greater combat densities throughout the operational depths. . . . In future war we will commonly confront such combat depth. It results primarily from the operational deployment in depth of modern combat formations. Combat depth refers not only to the organization of defensive belts, but also to the depth of operational deployments in any situation. The forward line of fighting divisions itself occupies a tactical depth of six to eight kilometers. Next, we must account for the nearest combat reserves, which constitute a second line eight to ten kilometers behind the first. Farther to the rear, twenty to twenty-five kilometers behind the immediate combat reserves, are located additional army-level reserves, which form a third line that might be deployed as separate groups. Finally, all this operational deployment in depth rests on a railroad line located even farther to the rear (twenty-five to thirty kilometers from the third line, depending on the situation), which can introduce fresh reserves at any time.

Thus, the modern operational deployment of a combat formation can stretch sixty to 100 kilometers in depth. If this deployment defends, then its depth assumes the form of successive fortified echelons. One must account for the fact that this depth can be continuously supported and constantly reinforced by fresh reserves in case its forward edge is broken or pushed back. The front can be restored by means of reinforcement from the rear or other parts of the fortified front. Reinforcement is now a function of modern permanent mobilization.

It is evident that the entire operational depth must be overcome and traversed with an uninterrupted series of *combat* efforts. Each kilometer must be taken by force. (. . .)

Thus, as a general tendency, the distribution of an operation in depth will attain full development in future war, just as was the case with the operation's lateral extension during the World War. We can assume that distribution of an operation in depth would be more fully developed in the western European theater of war than in ours. Nevertheless, for us *a future operation will no longer be a broken chain of interrupted battles. It will be a continuous chain of merged combat efforts throughout the entire depths.* It will be a vast sea of fire and combat, spreading across the front as in the World War, but blazing through the entire depths in future war.

Indeed, the history of armed conflict would never have witnessed such combat intensity. The scale itself would constitute a historical milestone, for, once armed combat has encompassed a front and spilled into the depths on land and in the air, there will be no place else to go.

Thus, *depth* is the very essence of the evolving modern operation, and it is this essence that accounts for the operation's enormous intensity.

A modern operation does not constitute a one-act operational effort in a single locale. Modern deep operational deployments require a series of uninterrupted operational efforts that merge into a single whole. In operational terminology, this whole is known as a series of successive operations. However, this understanding is essentially incorrect. *A series of successive operations is a modern operation.* Without depth, an operation is deprived of its essence and becomes historically conservative, failing to correspond with the new conditions that define it.

We are confronting the evolutionary shift of the operation into a new dimension, that of depth. It is this dimension that merges a series of successive operational efforts into the general notion of a modern deep operation.*

Under present conditions, we must refer not to a series of successive operations, but to a series of *successive strategic efforts, and to a series of separate campaigns in a single war.* This understanding is historically fundamental to the evolving nature of the operation and its changing forms and methods of conduct. The blunt facts are that *we are facing a new epoch in military art, and that we have to shift from a linear strategy to a deep strategy.*

The Contemporary Correlation of Offensive and Defensive Means

The nature of the modern operation confronts any offensive with the necessity to overcome the enormous depth of defensive firepower. This necessity requires first of all material support from all corresponding offensive assets. No matter how mobile and maneuverable the operation on

*Author's Note: Our literature often refers to the future operation as the "spatial operation." This understanding is inexact. Any space on one plane has two dimensions, width and depth. Operations along a front during the World War already reached their maximum lateral spatial limits. Evolving future operations will attain their spatial limits in depth. As this distinguishing feature indicates, the term "deep operation" will best characterize our understanding of the phenomenon.

a tactical scale, any formation must finally pierce an opposing front. Tactically, any battle in the end boils down to a frontal attack. It is this attack which determines, completes, and decides everything. Today, the resolution of this primary problem rests on the relative correlation of offensive and defensive means.

Theoretically, the last period of the World War settled this problem in favor of the offensive. It was then that the first indicators of a practical solution appeared. But the World War failed to draw a complete picture of the new offensive means. The exploitation of new technological means for combat (tanks and aviation) did not achieve the intended effect. Their impact failed to exceed tactical application to attain operational results.

Since then, many technological advances have occurred. Modern tanks and combat aircraft are qualitatively advanced weapons, when compared with those of 1918. It is sufficient to refer to the following primary indices which are displayed on the next page in Figure 1.1.

Moreover, these are not necessarily the most recent indicators, for modern data have a tendency to reflect increases.

Under these conditions, resolution of the competition between defensive and offensive means in favor of the latter becomes even more probable. In respect to quantity, firepower means would naturally be more powerful in the defensive than the offensive. A machine gun and a battery would be always more powerful in the defensive than the offensive. This fact flows not from qualitative differences, but from the nature of targets on the defensive and offensive. On the defensive, batteries and machine guns fire against attacking infantry groups in the open, and they constitute easy targets. In contrast, batteries in the attack operate against dispersed, hidden, and protected field guns and machine guns. These require time, accuracy, and high rates of munitions consumption to suppress. The two situations are absolutely different, and the massing of firepower assets on the offensive remains indispensable.

However, qualitatively new technical means of struggle can acquire clear superiority over defensive firepower. In fact, the tank is not a new firepower instrument. It carries the same gun or machine gun which brought about the tank's appearance. The tank is an armored means for their transportation, and this combination adds up to a qualitative solution to the problem of firepower superiority. Mobility, cross-country capability, and armor confer on the machine gun a *new quality* of relative protection from defensive fire, plus the ability to destroy defensive objectives with the sheer weight of armor. The latter possibility constitutes a *new type of*

blow and attack. Naturally, a tank-mounted machine gun is more powerful than its dug-in equivalent. And naturally, a tank-mounted gun has the same superiority over its defensively-emplaced equivalent.

Tank	1918	Current Day
Speed	2–4 km/h	25–40–60 km/h
Range	40–50 km	300 km
Combat Aircraft	1918	Current Day
Horsepower	50–600	3,000
Bomb Load	0.4 T	3–4 T
Speed	120 km/h	400–600 km/h
Range	250–300 km	3,000–4,000 km

Figure 1.1. Development of Tank and Aircraft Capabilities. Original to author.

Fuller’s theory is correct to the extent that it argues the tank has changed the correlation between defensive and offensive means in favor of the latter. Moreover, we should bear in mind that mechanization settles another essential question, the avoidance of excessively deep march columns. They are perfect targets for assault aircraft. The technological capabilities inherent in mechanization offer a solution to the tactical problem of

vulnerability with a transition to *off-road* tactics. These involve deployed movement in any terrain, a possibility that diminishes the former importance of road networks and alleviates the necessity to move in deep march columns. Off-road movement facilitates maximum rapidity of assault, as well as affording the best passive protection from aerial attack. Off-road tactics are a new feature of modern mechanized formations, and such tactics have great significance for the evolution of contemporary operations. Indeed, off-road tactics alone condition the transition to a new epoch of military art.

All of the above developments increase offensive potential. In fact, qualitative improvements similar to the tank apply to combat aircraft. In the air they carry the same firepower and explosive assets at the disposal of fixed ground defenses. Indeed, the application of these destructive means from high-speed aircraft becomes more powerful than those at the disposal of ground defenses. We should bear in mind that today air-delivered means are more powerful than ground defenses. In this respect, air defense is indeed inferior to air attack.

However, this fact acutely affects both the defense and the offense. Attacking aircraft are equally threatening to the offensive. In this regard the question must be settled by gaining air superiority along the axes of decisive offensive operations. Concentration of massive aviation assets in the air will be as compulsory as concentration of offensive firepower assets on the ground.

In sum, protection from defensive machine gun fire, cross-country mobility, and the capacity to traverse space quickly by air are decisive factors which condition the superiority of new technological offensive means over defensive firepower. The new offensive superiority stems mostly from mobility, which imparts a new quality to firepower in the offense.

The whole evolution of modern military technology flows mostly along the lines of increasing and perfecting this mobility. Everything that increases mobility enriches offensive potential. Defensive potential can be increased only by improving firepower. But, with reference to increasing rates of fire, everything was already achieved in the World War, when machine guns came into use with the infantry. The only unresolved problem is the automation of artillery. Once rapid-fire antitank and antiaircraft guns are introduced, other means must be sought to counter the offensive. In general, defensive potential has reached its full peak.

It is necessary to note that the defense will enlist modern science and technology to counter the offense in various ways, including engineering

assets, chemicals, obstacles, mine fields, and even electricity and radio for long-range disruption and destruction. However, only a stabilized continuous front can support the widespread use of these modern technological means. Meanwhile, the development of modern high speed combat means, including aviation and motor-mechanized assets, can to a significant degree condition the mobility of military actions.

Evolving science and technology do hold prospects for countering the offensive. Still, it is evident today that the offensive leads in the development of technological combat means, while the development of defensive means occurs only in response.

That this offensive superiority has affected the European general staffs is evident from the appearance of modern permanent fortification systems. The eastern border of France is now a continuous line of concrete fortifications, with electrified fields of death guarding the approaches. The Germans now build similar fortifications in the remilitarized Rhineland. Overcoming a belt of concrete fortifications is of course impossible for modern offensive means. If the art of fortification evolves to fast-hardening concrete, making it possible to build concrete fortifications quickly during the course of maneuver, then the probability increases that military art will confront the new problem of scientifically and technologically advanced trench warfare. It is difficult to predict the evolving nature of such a confrontation, but it is possible to assume that its prerequisites are rooted in the possibility for a second imperialist war on the western European sub-continent. Under the insurmountable conditions of new-style trench warfare, such a war would be doomed to failure and of course would promote the development of the conflict into a civil war on a global scale.

There are no prerequisites for such a positional front in our eastern European theater of military actions. However, such a front with its qualitatively different character could arise in isolated sectors. Therefore, it is necessary to realize the prospects of storming a concrete line front from the air and not from the ground.

Airborne forces must play an important role in the future. It would be hard to overestimate their significance in the evolution of operational art.

Under modern conditions of colossal technological progress and corresponding prospects for our future development, we should never be short-sighted and lag behind. The competition between offensive and defensive means affords a vast field for research and experimentation. It is necessary to keep in mind that combat means should always be viewed with respect to the means for countering them. In an evaluation of combat

means, one can never assert that their inherent characteristics preclude the possibility of their being overcome by countermeasures. Countermeasures will never remain on a level at which they become less suited for further development than offensive means. The adversary who must defend himself will naturally employ all possible means of resistance. The course of conflict can present many new possibilities that make insufficient a blow by modern offensive means.

From this perspective, we must therefore recognize that possible countermeasures will make the application of force by modern offensive means less certain and convincing than the benefits of range and speed. This situation might require the further innovation of offensive means. Far-sighted and progressive technical thinking must keep this fact in mind.

One thing, however, is apparent: the present tendency favoring the superiority of offensive over defensive means is growing more palpable. Under those political conditions which determine the nature of our future war, this circumstance affords a material foundation for the possibility of overcoming a firepower-intensive front and for producing a decisive outcome with deep offensive operations.

The Organization of the Offensive in Depth

Combat means are a necessary material prerequisite for solving problems, but they cannot solve problems on their own. There are many instances in the history of military art when new combat means failed to produce the desired effect. They were employed in outmoded combat formations in accordance with dated methods. Such was the case, for example, when rifled field guns were left at the rear of march columns.

New armament requires new forms of combat employment. Tactics settled this question through transition to combat groupings and deep battle. However, the control of large troop formations has lagged behind, mired in an earlier stage of historical evolution. Once the objective of an offensive displays great defending depth, the operational deployment of an offensive attack formation requires essential changes. A single line of deployed armies would hardly be able to solve the *new problem of the deep offensive*. One can definitely assert that linear strategy's *single wave of operational efforts will not solve anything*. It would powerlessly dash itself against the depths of modern defenses.

This problem brings us to the central question of fashioning a deep strategy for the present epoch. It is necessary to perceive the character of the modern defensive depth: resistance tends to increase and to attain its culminating point or strategic zenith when the attacker is close to his aim

and the defender must put everything on the table to save his position. Because the belligerents' tenets are incompatible, and because there is no reconciliation in a conflict for political and economic independence, resistance can display enormous strength at the last stage of an operation.

Even during the World War, when the contradictions within imperialism were acute, operations in 1914 developed along a curve of rising combat efforts. This fact escaped the Germans, who entered the first frontier battles with a high operational intensity, but who approached the Marne poorly prepared to confront increased Anglo-French resistance.

Nor did we take this rising resistance curve into account during our offensive of 1920 to the Vistula. After forcing the Nieman, it was even planned to reduce the strength of the western front armies, since completion of the campaign seemed assured at the initial stage of the offensive. The operational forecast did not envision a battle of enormous intensity on the Vistula, and this was a bitter miscalculation that testified to a deep misunderstanding of contemporary operational dynamics.

Offensive exhaustion finds its causes less in the self-induced expenditure of attacking power than it does in growing defensive resistance. An obvious example would be a situation in which linear strategy's offensive front simply repelled the enemy rather than capturing or destroying him. Thus, the failure of this strategy to bring about the destruction of the enemy's vital force would permit the same retreating enemy to occupy an operationally advantageous position. Consequently, at the very culminating point of the operation, the defender would be much stronger than at the initiation of hostilities. Meanwhile, the attackers would carelessly approach this strategic Rubicon, assuming that the final moment of the operation would be the easiest. Such would be a fatal mistake. It is always the first step that is easier, because it is assured by advance planning and the preliminary grouping of forces.

Difficulties must be expected during the course of an operation, since all details cannot be foreseen. *One should expect the greatest tension and crisis at the final stage of an operation.* The essence of the art of operational leadership lies in the ability to approach this decisive moment in full awareness of the situation, with a fresh wave of operational efforts, and forearmed with all the necessary forces and means to put a crushing end to the operation.

The leader is doomed who would presently try to approach the Marne or Vistula as in 1914 and 1920. His end would be inglorious, no matter how grand along the way were his offensive operational achievements. More-

over, the grander these achievements might be, the graver would be the catastrophe if forecasting were not applied to the final stage of the operation.

A modern operation is an operation in depth. It must be planned for the entire depth, and it must be prepared to overcome the entire depth. Moreover, it must be anticipated that the intensity of resistance within this depth tends to increase and grow denser from front to rear.

In elaborating the deep offensive operation, contemporary operational art encounters the novel problem of structuring offensive formations. One thing is clear: linear strategy with *its single wave of operational efforts is incapable of dealing with this offensive problem.* The solution is to be found in accordance with the new ways of evolving operational art. Meanwhile, one proposition of traditional military theory must be discarded along the way. Before anything else, we must abandon the proposition that *strategy achieves its aims in accordance with the principle of simultaneity of actions.* This proposition, which enjoys popularity even now, dates to Napoleon's age. It lost relevance some time ago under modern conditions. Clausewitz referred to it several times:

In tactics, when forces are gradually introduced into battle, main decisions are postponed until the end, whereas in strategy the law of simultaneous engagement of all forces almost always strives for decision at the beginning of a larger action. . . .

Tactics allow gradual introduction of forces into battle, while strategy makes its demands immediately and simultaneously. . . .

Strategically one must engage the largest number of possible forces, their engagement must be simultaneous. . . .

Strategy cannot recognize time as its ally, and for this or that aim introduce forces into an affair gradually and incrementally. All available forces assigned to achieve a strategic aim must be engaged simultaneously. . . .

In strategy dispersed efforts contradict the essence of the aim; all available forces must be engaged simultaneously.

This theory was correct for Napoleon's age, as well as for the outset of linear strategy in Moltke's era, when an operation still generally led to a one-act main battle that was decided by a single wave of operational efforts. However, this theory did not correspond with the new conditions of armed conflict during the epoch of imperialism. Its death throes were already perceptible during the last decades of the nineteenth century.

During the second half of the Franco-Prussian War of 1870–71, after the fall of the Second Empire, the Prussians had insufficient forces to engage in a new struggle against a reorganized French Army. But the treacherous counterrevolutionary French bourgeoisie lent Moltke a helping hand by making peace with Bismarck over the head of the French National Guard. It is now difficult to speculate how a renewed war between France and Prussia would have ended under different circumstances. But Engels described its possible outcome in the following way: “The French position was very strong despite their recent defeats. If we could be sure that Paris might have held out until late February [1871], we would be inclined to speculate that France might have emerged as the victor.” (Engels, *Stati o voine*, Izd. 1924 g., 182, 195.)

Even then there were the first signs of permanent mobilization and of the impossibility of achieving strategic decision by sheer simultaneity of a single effort. Moltke realized he was facing a new phenomenon in the history of armed conflict. Later he said several times: “This war [i.e., a continuation of the 1870–71 war after Sedan] astonished us so much that the question it posited should be studied many years.” Indeed, the question was worth study. The appearance of new armed forces after a first-line enemy army had ceased to exist indicated that strategy might not achieve its future aims with one first-line army deployed at the beginning of a war. The introduction from the depths of a second and possibly even a third line army might be necessary. In Moltke’s vague premonition there was a convincing hint of the epoch of deep strategy.

In his famous speech of 1890 to the German Reichstag, Moltke said: “If a war, which for more than ten years has been hanging over our heads like the sword of Damocles, finally breaks out, no one can predict its duration and outcome. The greatest European states, armed as never before, would enter the war against each other. *Not one of them would be crushed during one or two campaigns, so that it would recognize itself as defeated, so that it would be forced to conclude a harsh peace, so that it would not reaffirm its strength and resurrect the fight.*” (emphasis added by author.)

This was a different Moltke, a strategist of the new epoch. But new views were incapable of disproving old theory. Historical experience went unnoticed. Even at the beginning of the twentieth century, Foch wrote the following in his *Principles of War*: “Within strategy the law of coinciding efforts governs, not the tactical law for the gradual reinforcement of effort.” This view was already incorrect during the war of 1870–71, and all the more so during the war of 1914–18. At present this

proposition is absolutely incompatible with the new character of the deep offensive operation.

In this regard, that, which during the second period of the Franco-Prussian War of 1870–71 was perceived only on a strategic scale, manifested itself operationally during the World War and later in the contemporary field of operational art. *A modern multi-act deep operation cannot be decided by a single simultaneous blow of coinciding efforts. It requires deep operational reinforcement of these efforts, which expand in proximity to the highest point for attainment of victory.*

Deeply-echeloned resistance causes equally deep offensive echelonnement. The offensive should resemble a series of waves striking a coastline with growing intensity, trying to ruin it and wash it away with continuous blows from the depths.

A modern operation essentially elicits distributed efforts in time, thereby conditioning strategy. This observation was proved by events during both the World War and our civil war. *But of course it would be wrong to understand* that the Germans in the frontier battles of 1914 and we in the battle on the Auta River in 1920 engaged too many forces at once, and that these forces ought to have been engaged gradually. All available forces should be engaged during initial operations in accordance with the correlation of belligerent forces. But the essence of the question is the necessity beforehand to organize the deep echelonnement of additional efforts. At the decisive moment of the operation, the object is that additional forces and means arrive in the appropriate groupings to facilitate final attainment of victory.

Modern operational echelonnement of efforts in depth does not mean engagement of these efforts either piecemeal or in operational packets. *Modern operational echelonnement is the sequential and continuous increase of operational efforts aimed at breaking enemy resistance through its whole depth.* The greater the resistance in depth, and the greater its intensity, then the greater must be the echelonnement of the offensive's operational depth.

While deploying for a modern deep operation, it is necessary to calculate forces and means both along the linear dimension of a front and in the new dimension of depth.

The problem of deep operational offensive deployment challenges another time-worn proposition, the idea of so-called strategic reserves. As long as strategy solved a problem with a single simultaneous effort, no reserves were needed. Clausewitz described the idea of strategic reserves as senseless, calling them unnecessary, useless, and even harmful. He insisted

that all strategic efforts be compressed into one action during one moment. He wrote: “The idea of holding back prepared forces for use after attainment of the general aim is impossible to recognize as anything but absurd.”

As long as the general aim was achieved by a single act in Napoleon’s era, this proposition was correct. However, doubt set in during the second half of the Franco-Prussian War of 1870–71. By the beginning of the twentieth century, the proposition simply became incorrect.

To a certain extent, Schlieffen had foreseen this problem. He insisted on having a strong reserve army behind the German right wing during the advance on Paris. But his motives were different. He needed operational reserves during the offensive to extend his right flank in case additional forces were required to complete envelopment of the enemy. In the end, Schlieffen’s reserve would enter the same line as the advancing front.

Under modern conditions, operational reserves are required not to extend flanks, although such action might still be necessary at the beginning of a war. In general, flanks have already reached the limits of their lateral extension, so reserves are now necessary for reinforcement of operational efforts aimed at breaking the entire depth of enemy resistance. Now, the very notion of operational and strategic reserves involves the development of operational echelons. As armed conflict evolves to the future, the silhouettes of analogous strategic echelons will appear behind these operational echelons. Of course, this development would lead to further increases in the strength of armed forces, thereby disproving any theory about small professional armies as conservative and nonsensical.

The growing strength of armies during the epoch of imperialism answered the requirement of linear strategy for the broadest possible enveloping offensive front. Now, the growing strength of armies is a function of deep strategy, which requires strong operational echelons in depth and deployment of the offensive in depth. These developments testify to the grand scope of contemporary armed conflict. They also disclose the whole evolving character of the operation during the emerging epoch of deep strategy.

The Entry in Depth into the Contemporary Operation

New requirements give rise to new historical phenomena, but these phenomena are also predetermined by a number of new prerequisites. In 1866, when for the first time Moltke deployed Prussian armies across a 400-kilometer front, this operational phenomenon corresponded with the new character of armed conflict. But this phenomenon was also predetermined by new objective conditions, including railroads. Still, as Schlicht-

ing has noted, Moltke harbored strong misgivings about such broadly based deployments.

So it is today, when *deep deployment* generates apprehension and even fear. But, whether we like it or not, such deployment is inevitable. At present, a number of objective prerequisites predetermine deep deployment. It flows from the nature of future war, which will generate a conflict of immense intensity. No country entering this conflict will limit mobilization capacity to the first echelon of a mobilized cadre-based regular army. Further, no country at the outset of war will have the capacity of simultaneously concentrating for immediate combat action all forces capable of mobilization. To do so would require the postponement of hostilities and the withdrawal of one's own deployments deep into the country's interior to protect them from piecemeal destruction. In this case, a weaker enemy with fewer forces to deploy would paradoxically be stronger at the very beginning of conflict. However, there are few who would dare test this proposition. It is very evident that *sequential permanent mobilization* leads to a sequential buildup of efforts.

First-line forces would be followed by second- and third-line forces, a situation that predetermines ground force entry into war by deep strategic echelons. This inevitable scheme for entry by depth into a future war is reflected by an army's contemporary peacetime deployments. How else can we explain the existence of a special French covering army (*l'armee couverture*) on the Rhine? In fact, this army constitutes the French first strategic echelon, behind which the main mass of the armed forces will deploy for combat in second and subsequent echelons. German occupation of the Rhineland definitely aims at the concentration there of the same kind of covering army, but one suited to become the first operational echelon of an invading army.

The deeper and vaster a country's territory, the greater is its mobilization potential, the more powerful is its capacity for combat intensity, and the broader is its scope for deeply-echeloned strategic efforts. These conditions apply to our country. They amount to a powerful advantage that facilitates *the maximum increase of efforts at the last decisive moment of conflict*. In comparison, the Baltic countries are much smaller in territory and weaker in mobilization potential. Their mobilization intensity at the beginning of any conflict would be close to its peak. The all-important gradual buildup of efforts would occur in the Baltics on a much reduced scale, unless large imperialist countries seriously rendered them assistance with forces and means.

The echeloned entry of armed forces into a war is a function of both strategic and operational necessity. Prerequisites for this necessity flow from material factors in evolving contemporary combat technologies. The essence of the technological evolution of modern armaments lies in the impulse for greater range and range of action for effect. Everything boils down to inflicting destruction at the greatest possible range. The entire significance of combat aviation lies in the capability to cover distances quickly. The same holds true for motor-mechanized means.

The evolution of firearms followed the same path. It is worth noting that during the second half of the nineteenth century the development of firearms focused on range and rates of fire. Before the World War, at the turn of the twentieth century, the focus shifted mostly to improved rates of fire, while ranges remained at previous levels. After having attained maximum rates of fire with the machine gun, technological evolution during and after the World War emphasized increased ranges. Machine guns were fitted with inclinometers so they might fire at distant targets from concealed positions. Improvements in field artillery increased its range to twelve to twenty kilometers. All these developments held decisive significance for evolving tactical forms of battle.

Historical evolution demonstrates that the increased range of weapons during Moltke's era accounted for transition from Napoleonic-style concentration of all forces before battle to the meeting engagement from the march. Now, because of still greater ranges, we face further evolution of the meeting engagement. During the second half of the nineteenth century, when the range of fire came to equal the range of vision, engagement from the march was the direct result. Now, however, the range of fire is much greater than the range of vision in the field. This development means *that modern battle will commence at great distances*. It also means that present tactical march security, positioned five to six kilometers in advance of main forces on the move, in fact secures nothing either from remote fire-power assets or from the sudden onslaught of motor-mechanized troops. This assertion does not even account for attack aviation, which can transit immense distances in another dimension. March security forces are no longer capable of fulfilling their role as the advance guard to cover the deployment of main forces for battle. March security now constitutes local security only. In addition, the increased depth of movement columns requires more time and space for main force deployments in appropriate groupings for battle. At the turn of the twentieth century, [General Hippolyte] Langlois, who was developing a theory for evolving artillery em-

ployment, wrote: “We must press our advance guard forward not several kilometers, but several miles, up to a distance of 1–1.5 march traverses.”

Modern combat ranges have increased markedly. They require the forward deployment of movement security at distances of at least twenty to thirty kilometers, which is the depth required for the deployment of a contemporary reinforced division. This requirement essentially demands the widespread use of a system of forward reconnaissance detachments. Such a system would screen the advance guard, which itself moves five to six kilometers ahead of the main force, and assume the functions of reconnaissance and security. Without these functions, the advance guard simply becomes the first echelon within the march column. The new reconnaissance and security detachments must be sufficiently strong to perform their functions. However, such changes would settle the security issue only on a tactical scale, on the level of security precautions along a given route of advance.

The contemporary army commander who actually desires to control a modern deep operation must first of all provide for the timely deployment of his forces and their entry into battle in a grouping that accords with his intent. He needs an instrument for operational security that consists of powerful mobile formations, chiefly motor-mechanized units and cavalry, pushed forward one-two and even more traverses.

In contemporary circumstances we return to the Napoleonic phenomenon of the *army advance guard* as the first echelon in the march, but with a completely different qualitative significance during the emerging epoch of deep strategy. This dialectical transformation closes the evolutionary circle for offensive operational deployments. The essence of this transformation means that the notion of a meeting engagement has reached its zenith, moving from the field of tactics into the operational sphere. As a rule, a meeting engagement is tactically possible only for forward units of the advance guard echelon. But operationally, the engagement becomes a meeting battle when the advance guard echelon functions as an army-level advance guard. This shift means that the contemporary operational formation for the offensive must inevitably be deeply echeloned.

It is possible to approach this new phenomenon with apprehension and misgivings, even though it is rooted in new requirements for the contemporary operation. Deep echelonment is inevitable, for it has been predetermined by a number of objective conditions.

It must be taken into account that modern combat means are very diverse, with reference to their speed, range, and effects. Aviation naturally occupies first place in range and the ability to cover long distances. Earth-

bound enemies will not even have commenced firing when this service arm begins attacking during the first hours of war at very long range. Powerful and massed combat aviation will naturally be the first factor with combat impact.

Aviation will be immediately followed on the ground by everything that is mobile and easy to displace forward, especially motor-mechanized units and modern mechanized cavalry. While the core of the first-line army laboriously completes its complex mobilization, the mission of these forward horse and motorized units will be to disrupt enemy concentration and then occupy an advantageous jumping off position for transition to the general offensive. These mobile units will constitute the first ground advance guard echelon.

Finally, the main body of combined-arms infantry formations will enter the theater of military actions. But this mass of troops will not be able to form one line immediately. Because modern railroads have grown more slowly than the armed forces, the railroads will not be able to transit all troops immediately and completely. The result will be a prolonged period for the concentration of all forces in the theater of war. When the majority has completed transit, it will begin operations as soon as possible. Those forces arriving subsequently will begin operations later. Thus, the main body of forces will deploy in two phases to comprise the second and the third operational echelons.

When this entire in-depth system of the first strategic echelon begins to move, the outline of a second strategic echelon will take shape in the strategic depths of the country. This echelon will be comprised of mobilizing second-line troops.

If all of the above does not signify the onset of an epoch of deep strategy, then one has to doubt the very notion of depth.

The physical boundaries for entry by depth into an operation will stretch to immense distances (see Figure 1.2). Aviation will immediately operate at its maximum range. Motor-mechanized units and cavalry will rapidly advance two to four traverses forward (about 100 kilometers). The attacking first echelon forces of the main body of troops will occupy a depth of seventy-five kilometers, provided each division has its own road (which cannot be always ensured). Finally, second echelon forces of the main body of troops will be one traverse behind the first echelon. The second echelon will extend across a wider front than the first, and it will occupy a depth of fifty kilometers.

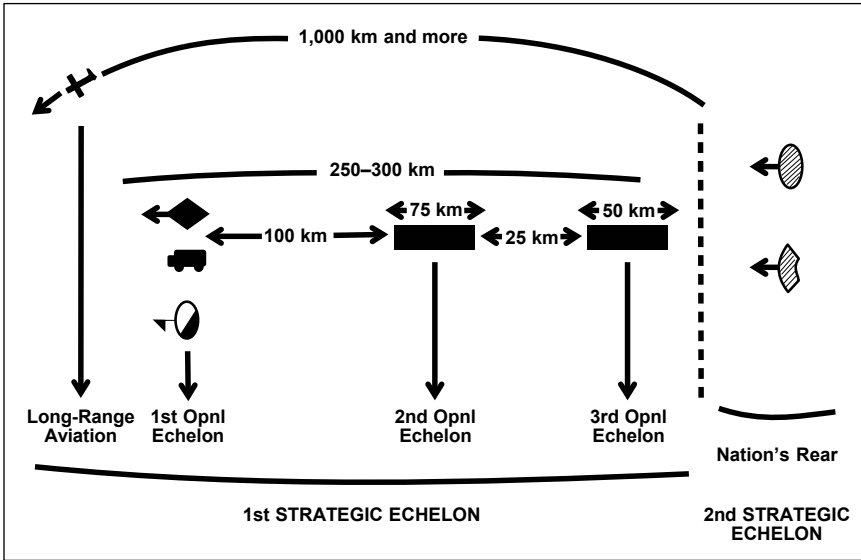


Figure 1.2. Entry in Depth into a Modern Operation. Original to author.

In general, the entire first strategic echelon would occupy an immense depth of 250–300 kilometers on the ground. However, such depth cannot be ensured by modern conditions of deployment.

Predicting twentieth-century conditions, Schlichting wrote: “the strategic deployment of an army will be only several short traverses removed from the first decisive main battle.” Meanwhile, [Jules-Louis] Lewal predicted that “in future war, contact would occur spontaneously right at railroad station debarkation points.” Under present conditions, when troops in heightened mobilization readiness are located close to the border, and when covering forces are concentrated closer to the border, military operations will practically start right on the spot. Long 300-kilometer marches through the depths will be unnecessary.

The above-mentioned deployments are perfectly obvious on the Franco-German border. General Debeney has said: “At the beginning of a future war France and Germany will already be in contact, since French garrisons are deployed not more than twenty kilometers from German border guards entrenched in the woods. The battlefield will not afford sufficient space to permit motorized troops to use their speed.” In addition, shallow depths will not permit a number of small states to develop deployments in depth. In such situations, the operational offensive depth will not reach its full potential in space. Operational echelons will enter the operation from one line.

Regardless of circumstance, the last echelons will be peacefully marching in the deep rear, perceiving during their advance a threat only from the air and the intensity of supply and evacuation activities, while the first operational echelons will already be engaged in fierce battles, during which much will be resolved. It will be difficult to predict not only when and where this grand operation will take place, but also when and where to draw any noticeable boundary between the operation and main battle. We will be crawling into this battle, when in essence the first bomb dropped in the deep rear or the first shot fired will already have signaled the initiation of this grand operation.

During the epoch of linear strategy, main battle emanated organically from an operation, whereas *during the epoch of deep strategy the operation and main battle will organically merge*. Any boundaries in time and space will disappear. During a single expanding torrent of operational efforts, modern main battle will envelop a front and find its conclusion in the depths. Thus, wave after wave will break against the approaching enemy front, which will obviously be similarly deployed. From this situation arises the conclusion that *final success will reside with the side having the deeper operational deployments*.

The moment is inevitable, when all these waves will co-mingle in a single squall of fronts directly confronting each other. At this point, perhaps the development of the operation will once again produce a linear front and linear strategy. But, also at this stage, which could come naturally and soon under modern conditions, the evolution of operational art might require a different resolution, with a deep frontal blow from the depths into the depths. Here the requirement for deep offensive deployments would become even more acute. The result would be a new operational solution for the problem of conducting a breakthrough during the emerging epoch of deep strategy.

The In-Depth Breakthrough and Destruction of the Front

During the epoch of linear strategy, operational art reached its own self-negation when front confronted front, thus necessitating a breakthrough. The problem could not be resolved operationally on the basis of linear strategy. This quandary elicited the appearance of new technological means. It also raised to a new level the technique for the tactical organization of the offensive and created preconditions for tactical resolution of the problem. But linear strategy all the same could not resolve the operational problem of breaching and destroying a front. So, operational art had to look for new methods, it had to step forward into a new epoch.

But an imperialist war of attrition and exhaustion did not provide the appropriate conditions.

The new nature of future war with its decisive destructive operations has advanced a new kind of resolution for the central problem of contemporary military art. *A front must be broken by means of a decisive operation. A front must be broken and totally crushed throughout its entire depth.* Deep strategy will pass the test of historical maturity. If this strategy has been predetermined by many contemporary objective conditions, at the same time it has been evoked by requirements for decisively and fully overcoming the frontal phenomenon.

New forms of deep battle are conditioned by the widespread tactical employment of modern technological means for combat (tanks, long-range artillery, and short-range aviation). These means can solve the breakthrough problem on a tactical scale. But they can only breach the tactical depths of modern defenses. Tactical means remain unable to produce operational decision, although they lead to it.

Deep tactical efforts must still evolve into a deep operational breakthrough. Operational art during the epoch of deep strategy must resolve this basic problem. All the attainments of deep tactics will become superfluous if this problem is not resolved on an operational scale. One must understand that the first attack echelon for breaching a front is capable of fulfilling its mission only on a tactical scale. No matter how grand the success, the first echelon by itself cannot transform tactical results into operational results by rushing through the broken door to crush enemy resistance through the entire operational depths. The first attack echelon cannot resolve this problem, for strong springs offer resistance inside the broken door, and it has to be held against slamming shut. This combat mission remains the duty of the first attack echelon. But, if no one takes advantage of the tactical breach made by the first echelon, *if no one comes from the operational depths to prolong the depth-to-depth blow*, and if tactical success doesn't become operational, the breach will soon close. All the tactical efforts of the first attack echelon will have been wasted. After the attackers had exhausted themselves, nothing would remain, except a belly-like protrusion in the offensive front. Such would be a continuation of the system of senseless and exhausting frontal attacks of self-attrition to which linear strategy gave birth in 1918.

The modern breakthrough can and must be undertaken not only when there are sufficient forces and means to pierce a front, but also when there are sufficient forces to extend the rupture in depth for destruction

of enemy resistance throughout the entire depths. Undertaking a breakthrough operation is wasted effort unless there is sufficient strength for its development. It is senseless to break down a door if there is no one to go through it.

A modern deep breakthrough essentially requires two operational assault echelons: an attack echelon for breaching a front tactically and a breakthrough echelon for inflicting a depth-to-depth blow to shatter and crush enemy resistance through the entire operational depth (see Figure 1.3). Both echelons retain their own internal tactical echelonment. This deployment in depth for a breakthrough operation resolves the main problem of modern operational art, i.e. the problem of a decisive, full, and deep breakthrough to bring about the front's complete destruction. Depth of formation remains essential not only for breaching fortified defensive belts, but also for launching any frontal blow that arises during the course of frontal main battle. In contemporary operational perspective, the only side that can count on final success is the side with the deeper formation, and the side with the more powerful echelons.

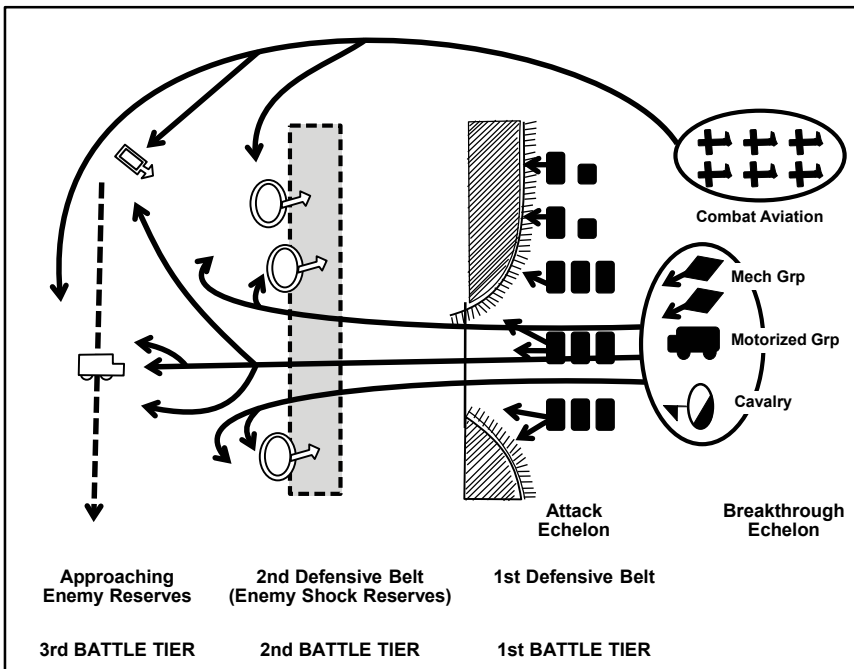


Figure 1.3. The Deep Operation for Penetrating and Crushing a Front. Original to author.

At the turn of the twentieth century, during the golden age of linear strategy, Schlieffen taught that victory belonged to the side with the longer and stronger flank. Now we must refute this teaching in modern operational perspective with the proposition that under the contemporary conditions of deep strategy, *victory belongs to the side with the deeper front and the more powerful deep echelons*. In a relative sense, we must keep in mind the obvious prospect for larger contemporary armed forces, while discarding as absurd various theories about small professional armies.

It is now necessary only to depict the entire in-depth scheme for a modern breakthrough operation. The operational art born of deep strategy will come into its own when waves of operational effort from the depths combine with a first advance guard echelon already engaged in main battle to produce a general squall and when, in consequence, two fronts confront each other without possibility for envelopment. The fast-moving *advance guard echelon* of motor-mechanized units and cavalry must be withdrawn early from the combat front because their long-range effects are no longer suited to the situation. There will be insufficient maneuver space, and they will have fulfilled their mission as an army-level advance guard. These units will now move to the flank on the way to redeployment in the rear of the offensive operational formation.

They will be replaced by advancing echelons of combined arms infantry formations, the effects of which are more appropriate to combat against a front. These formations comprise the *attack echelon*, since they constitute a tightly-deployed operational phalanx, armed with numerous tanks, highly-effective heavy artillery, and short-range combat aviation. They will be followed by a *breakthrough echelon* of fast-moving units tailored in advance as an offensive operational formation. It would consist of large independent motorized, mechanized, and cavalry formations supported by large masses of long-range combat aviation. The units in the lead at the beginning of the operation would now fall to last in the operational formation, whereas the ones which were last in the approach march would now become first in the attack.

This is the operational formation for the beginning of a deep breakthrough operation. It will display deep operational offensive deployments aimed at prolonging and developing depth-to-depth blows. This formation has nothing in common with the echeloned offensive breakthroughs of 1918. During the March 1918 offensive, the Eighteenth German Army had twelve divisions in the first echelon, eight divisions in the second, and four divisions in the third. During the May 1918 offensive, the Seventh German Army had fourteen divisions in the first echelon, five divisions in the sec-

ond, and six divisions in the third. During these offensives, each advancing division had only three kilometers of depth, while succeeding echelons had to replace and supply forward fighting units while pressing the offensive forward along a common frontline. The piling up of these echelons was reminiscent of the strategy of a stampeding buffalo herd which could not understand the requirements for an actual frontal breakthrough. That is, for tactical efforts to become operational, the blows must be prolonged and developed from the depths into the depths. In 1918, when there were no independent motor-mechanized units, and when cavalry had practically ceased to exist, resolution of the situation could not be assured. The breakthrough echelon must be faster than the attacking echelon in order to overtake and pass through it. Therefore, the breakthrough echelon could not be comprised of infantry. The breakthroughs of 1918 were tactical phenomena that could not be transformed into an operation. They were unable to posit the aims appropriate to the operational art of a deep strategy.

A contemporary deep breakthrough operation pursues the aim of simultaneously breaching and crushing the entire operational depths of the resistance. But operational simultaneity cannot be equated with tactical simultaneity. There is a difference in timing for effect. This difference is determined tactically by breaching the depth of the first defensive belt. After the attack echelon fulfills its tactical mission by breaching the enemy front, the breakthrough echelon pours through the breach from the operational depths. In the air, long-range combat aviation will outpace ground forces to preclude entry of enemy reserves into the breached sector. At the same time, airborne units will land in the enemy rear to become the first messengers of death. Simultaneously on land, a huge multi-wave, lava-like mass of fast-moving tanks, self-propelled artillery, and infantry in armored transporters will rush through the tactical breach in the front. These forces will destroy the last bottlenecks within the open breach. They will be followed by modern cavalry, “the arm of glory,” preserved by history. Finally, after roads are restored, numerous columns of motorized forces will enter action. Each component part of the breakthrough echelon will have its own role to play in the open breach. The breakthrough will occur simultaneously in several sectors of the front.

All these factors will prolong and develop the depth-to-depth blow. The larger the breakthrough echelon, the greater will be the depth of its objectives. In all instances, the offensive blow must traverse the entire depth of enemy resistance to fulfill the operational breakthrough mission. While the attack echelon continues to wage fierce battle in the breakthrough sector, on another level, perhaps even at prescribed tiers within the defensive depths,

the breakthrough echelon will begin actions for encirclement and destruction. In operational perspective, these actions would become a *new grand multi-level battle waged on several tiers within the operational depths*.

This battle will resurrect “Cannae” on the new basis of deep strategy. In fact, an entire “Cannae” system would appear, with some battles under way, others on the verge of beginning, and still others completed. The operational breakthrough of a front will be decided by the decisive shattering and destruction of resistance. Never has a strategy for annihilation enjoyed such splendid prerequisites for its full realization. This projection solves one of the grander problems in the evolving nature of modern operational maneuver.

The practice of armed combat and the theory of military art have thus far distinguished between two main types of operational maneuver. The first, characteristic of Napoleon’s era, was maneuver along interior lines for a concentrated blow against a single position. The second, characteristic of the era of linear strategy, was maneuver along exterior lines for an enveloping blow from various directions. These two types of maneuver were contrasted with each other, and to a certain extent were considered operational antipodes.

Clausewitz characterized them as follows: “In strategic maneuver two opposites are encountered, and they seem to be completely separate types of maneuver. The first opposite is action along either interior or exterior lines. The second is concentration of forces either at one point or along many points.” But historical evolution gives rise to the new by combining and transforming varied things.

A contemporary operation for a deep breakthrough is a unique combination of two types of maneuver. The attack echelon, which breaks the front, occupies a broad continuous line and operates along exterior operational lines. The breakthrough echelon operates on interior operational lines to inflict a concentrated depth-to-depth blow. *Thus, the epoch of deep strategy leads to a synthesis of two types of maneuver, or of two historical schools of military art.*

So, we discard the frequently voiced and non-dialectical idea that maneuvers of envelopment and encirclement have ceased to exist. Such opinions find no reflection in the foundations for the evolving nature of a contemporary operation. These opinions fail to see an operation in its two dimensions, i.e., along a front and in depth; they remain conservatively wedded to linear strategy.

A frontal blow is naturally the main form of action for the first attack echelon. But in itself, the frontal blow resolves nothing unless the attack echelon's tactical efforts become operational. But this transformation can be achieved only by inflicting a blow along interior lines from depth to depth, in order to envelop, encircle, and destroy the enemy.

Of course such maneuver does not occur along the linear front, but is transferred with great intensity into the combat front's depths. Here maneuver is fully reborn in great scope with new content. Here maneuver promises a golden age of deep strategy as the art of splendid maneuvers and crushing blows in depth. Thus, the epoch of deep strategy will complete the evolution of military art.

About the Author (from the 2013 book)

Georgii Samoilovich Isserson was born on 16 June 1898 in Kaunas, on the Nieman River, today the second largest city in Lithuania. In late 1916 he enrolled in a law program at Petrograd University but was conscripted in early 1917, as the Russian military scrambled to find recruits for its badly mauled armies. The swift collapse of Russia led to an abrupt termination of Isserson's imperial military career. In 1918, he found employment as a private secretary for the Petrograd Printers' Union. After only a month, just four days after his twentieth birthday, he volunteered for active service in the Workers' and Peasants' Red Army (RKKA) of the new Soviet state. Isserson's career in the RKKA shaped his commitment and dedication to Communism. The chaotic events of the Russo-Polish War briefly conspired against him, when in August 1920 he was interned in East Prussia along with 80,000 of his comrades. After his release in November, he began seminal military studies in the newly established RKKA General Staff Academy. During 1921, there was a fundamental reorganization of the academy's curriculum under the intellectual aegis of M. N. Tukhachevsky. He renamed the institution the RKKA Military Academy, extending the term of studies from two to three years and opening up enrollment to line officers in addition to the previously enrolled staff officers. Under Tukhachevsky, the curriculum thoroughly assimilated Marxist-Leninist historical theory, especially dialectical materialism, to explain military evolution and transformation. Isserson would rely heavily on this framework to visualize the collapse of the classical military paradigm and the emergence of operational art.

Chapter 2

The Soviet Theory of Deep Operations

Earl F. Ziemke

Essentially “deep operations” involved the solution of problems of the offensive by the use of crushing blows throughout the entire depth of the enemy forces’ deployment for the purpose of their complete defeat. The theory of the deep offensive indicated an outlet from the blind alley of position warfare characteristic of the bloody but largely fruitless battles of World War I.¹

—History of the Great Patriotic War

The Soviet theory of deep operations was formulated in the early and mid-1930s by a circle of officers most of whom were members of the Red Army General Staff or on the faculty of the War Academy of the General Staff. Not long after the principles of the theory had been articulated and published, they were influencing military thought even beyond the boundaries of the Soviet Union. Some of the principles were tested in the 1936 maneuvers, which were attended by a number of Western military observers. Further, German tank specialist Heinz Guderian knew the theory well enough from the Soviet publications to consider part of it as a possible model for German armor doctrine.²

This 1930s heyday of Soviet military theorizing—if it can be called a heyday—was short, however. The theory was barely conceived before it and most of its authors fell victim to the Great Purge. After 1939, and for as long as Joseph Stalin lived, the theory of deep operations was denied any existence, present or past. Stalin became the living source of Soviet military science. According to his official biography, “At various stages of the war Stalin’s genius found correct solutions that took account of all the circumstances of the situation.”³ When Raymond L. Garthoff surveyed Soviet wartime and postwar military doctrine in the early 1950s, he found references to depth on the offensive and in defense but apparently no indication that these doctrinal elements were or had ever been integrated into a general theory.⁴ John Erickson’s later comprehensive study of the Soviet high command from the Revolution to the first year of World War II contains random deep operations doctrine, but it too contains no reference to the theory.⁵

This chapter is a reprint of Earl F. Ziemke, “The Soviet Theory of Deep Operations,” *Parameters* 13, no. 2 (June 1982): 22–33.

The deep operations theory reemerged in the Soviet military literature in the late 1950s, and it has undergone a prolonged and tortuous reassessment since that time. The reassessment began in 1958 with the publication of the *Second World War*, edited by General S. P. Platonov, which asserted, “The greatest [prewar] achievement of Soviet operational art was the development and substantiation of the scientific theory of deep offensive and defensive operations.”⁶ In 1960, the first volume of the *History of the Great Patriotic War*, on the other hand, took a distinctly restrained view, describing deep operations as a “new theory . . . in accord with the objective conditions of armed conflict,” but one in which “not everything was completely worked out” and “not everything was correct.”⁷ Two years later, V. D. Sokolovsky’s *Soviet Military Strategy* did not even mention the theory of deep operations as such, identifying aspects of the theory only as matters with which Soviet theorists had once been concerned.⁸

As of the mid-1960s, when G. S. Isserson published a memoir of the deep operations theory and the men who had conceived it—of whom he was one of the few survivors—the theory had been resurrected, but its status was indeterminate.⁹ Then, in 1968, the Soviet armed forces congratulated themselves on their golden anniversary in the volume *50 Years’ Armed Strength of the USSR*. Among the accomplishments recorded therein, the theory of deep operations stood in the front rank as the “outstanding achievement of Soviet military-theoretical thought” in the interwar period; as the “principal new theory on the conduct of war with mass, technically equipped, armies”; and as having played “a paramount role in the enrichment and creative enhancement of military science.”¹⁰ Two years later, the *History of War and the Art of War* stated, “The very great achievement of Soviet military science, in which it outstripped Western bourgeois theory, consisted in the development of the theory of deep operations.”¹¹ *The Soviet Military Encyclopedia* (1976) ranked the theory as “a qualitative leap in the evolution of the art of war” made possible by the “socioeconomic advancement of the USSR, the progressive character of Soviet military science and technology, . . . and accumulated war experience.”¹²

Now, a good half century after its inception, the theory of deep operations has not only been rehabilitated, it is lodged in a position of high esteem in the corpus of Soviet military thought, and it could well be advanced further. After Stalin, of course, the record on the theory, as on a range of other matters, needed to be set straight. Records, however, can be set “straight” in two ways: in the context of the past or that of the present. Since Soviet historiography favors the latter, a record that has been set as “straight” as that of deep operations theory invites attention.

The Qualitative Leap

The problem of the World War I “blind alley” in warfare, which the theory of deep operations is said to have solved, was one neither the Imperial Russian Army nor, later, the Red Army had actually faced. Tsarist Russia had lacked the industrial base, hence the weapons, that had kept the war on the Western Front tied up in the trenches; and none of the forces in the Civil War had the resources to stage battles of materiel. Since the country’s industrial capacity was no greater and probably a good deal less in the 1920s than it had been before 1917, the problem continued to be academic for the Red Army long after it had become urgently real to Western armies. These circumstances have made the Soviets’ “discovery” of deep operations a somewhat awkward proposition for them to substantiate.

Soviet accounts attribute the concept of “operations”—as a stage between tactics and strategy—to a need recognized in all armies during World War I when a markedly increased mass widened the span of control and army groups were created. Operational theory, however, is treated as much less a product of common concerns. References to non-Soviet work are minimal, and the omissions extensive. Isserson wrote, “For the sake of historical accuracy, it should be mentioned that the question of deep battle [the tactical aspect of deep operations] was raised first by the English military theoretician Fuller late in 1918.”¹³ Nothing more is said about World War I. Soviet works do not mention Andre Laffargue’s “The Attack in Trench Warfare” (which advocated the deep offensive in 1916), or its offspring, the German Army’s “The Attack in Positional Warfare” (which gave Laffargue’s proposals doctrinal status), or the German employment of combined arms and storm troops in the so-called “Hutier tactics” (which restored depth to the offensive in 1918).¹⁴ The Soviet accounts also let pass the German 1918 offensive—a fair early example of deep battle, one would think—which was projected to have reached operational depth and came closer to doing so than did the subject of Isserson’s reference, J. F. C. Fuller’s Plan 1919, which did not get past the paper stage.

Marshal M. V. Zakharov, who was a junior faculty member under Isserson at the Frunze Academy in the 1930s, touched briefly on Western deep operations theory of the interwar period in a 1970 article in the *Military-Historical Journal*. The commonly held belief in the “bourgeois” armies, he said, had been that one or two main blows would be made to depths of 90 to 150 miles. Those could have taken about a month to complete and would have been followed by a two- to four-week pause for regroupment. What had been needed, Zakharov concluded, was “a new

theory of offensive operations” that would make it possible to “overcome a solid front and rapidly annihilate the enemy’s operation groupings.” The Soviet approach, he maintained, had been new because it was calculated to meet those requirements with “blows carried to the entire depth of the enemy’s operational deployment.”¹⁵

Zakharov did not undertake to confirm the deep operations theory as a Soviet discovery by providing the specific dimensions of depth and speed projected in it, but they can be determined from the context of the time and from other Soviet sources. In all military establishments, including the Red Army, thinking on the next war started from the premise that what was needed was a way to conduct deep offensives in a war fought predominantly by mass armies. Although visionaries like B. H. Liddell Hart and J. F. C. Fuller promoted the idea of small professional armies equipped almost exclusively with tanks and aircraft, and thus maneuvering over great distances at high speed, the general staffs did not believe that they could trade men for mobility. While they wanted the mobility, they were convinced the decision ultimately would hinge on manpower. This was taken to mean by all of them up to the eve of World War II, and by some until well into the war, that the main forces, even in deep operations, would most likely move at infantry speed and that the function of armor and air would be to keep offensives from bogging down completely as they had in the previous war.¹⁶

The Soviet theory of deep operations diverged notably from the general thinking only with regard to the attainable speed, and the figures published on that score vary, the earlier being lower than the later. The initial figures, in the *History of the Great Patriotic War*, work out to a maximum depth of 150 miles—the same as that provided by Zakharov for the “bourgeois” armies—to have been covered in fifteen to twenty-five days.¹⁷ The *History of the Second World War* in 1974 used the same depth, 150 miles, but the time in which that depth would be achieved was reduced to fifteen to twenty days.¹⁸ Then, in the *Military Encyclopedia* (1976), the distance increased to 180 miles in fifteen to twenty days.¹⁹ The deep operations theory apparently assumed that the Red Army’s infantry could sustain rates of advance on the offensive of nine to twelve miles a day. It is worth noting that the then-accepted rate was three to six miles a day.²⁰ Of course, the sources cited all hedge on either depth or speed in ways that could slow the projected Soviet rate to six to nine miles a day.

The requirement, as the Red Army leadership most probably saw it in the early 1930s, was not to revolutionize military theory but to convert from a cavalry-militia basis to one of technologically advanced weaponry

and to acquire an operational doctrine comparable to that prevailing in other armies. The Five Year Plans, begun in 1928, had created an industrial base almost exclusively devoted to military production, and they were rapidly making the Red Army the quantitatively best equipped in the whole world.²¹ In June 1931, M. N. Tukhachevsky, the Deputy Commissar of Defense, Chief of Ordnance, and later (1935) Marshal, provided the direction for the “technological reconstruction of the Red Army.”²² Groundwork had been done over the previous two years, and the Chief of Operations, V. K. Triandafillov, had already established the basis for an armor doctrine. It proposed to resolve the question that had concerned Western armies since the war—whether to use tanks as infantry support or independently, as cavalry formerly had been used—by setting up two forces, one of light and medium tanks to be attached to the infantry, and the other of fast medium tanks (of a type originally designed by J. Walter Christie, an American) to strike out ahead of the main body after breakthroughs had been made. A third force, of heavy tanks, capable of spearheading assaults on fortified lines would deal with the problem then being raised by permanent fortifications such as the Maginot Line.²³

The deep operations theory was sufficiently worked out by 1936 to be, in substantial part, converted into doctrine and incorporated into field regulations issued that year. In this form, which turned out to be its last in the Tukhachevsky era, the deep operation featured a four-echelon offensive. The air elements were considered to be the first echelon because they could seek air control and begin bombing before the ground echelons were deployed (though the effects of air power by itself were generally overrated). The second echelon, employing combined arms shock armies, would make the breakthrough. These shock armies would be composed of tanks, select infantry heavily armed with automatic weapons, and powerful artillery complements. Now claimed as a Soviet invention, the shock armies have obvious antecedents in the German storm battalions of World War I. In the third echelon of the deep operation, tank-supported infantry would exploit breakthroughs, and mechanized corps with about a thousand tanks each would carry the attack to its full depth, possibly assisted by parachute troops. The fourth echelon, the reserves, would lend weight to the advance and consolidate gains. Finally, commanders would be enjoined to develop clear-cut main efforts, employ combined arms, and exploit opportunities to encircle the enemy.²⁴

The mechanized corps and the parachute troops, the first of their kind, aroused interest; but the doctrine of deep operations did not touch off much of a stir among professionals elsewhere, very likely because it centered on

desiderata common to most armies and because the fairly public test and demonstration in the Soviet 1936 maneuvers did not show that doctrine to be capable of satisfying the desiderata. Guderian remarked that “it ought to be possible to do something” with the Red Army’s large numbers of tanks and aircraft, but he did not see any model to be followed in the way the Soviet armor was organized. Although there was “a certain justification” for the threeway functional division, he concluded, one would have to “take in the bargain” the difficulties engendered by an inventory of diverse tank types.²⁵ A British observer at the 1936 maneuvers, Colonel Giffard Martel, did not detect sophistication, theoretical or otherwise. What he saw were batches of tanks running over terrain virtually as flat and clear as a parade ground. Martel remarked, “There was little skill shown in the handling of these forces, which appeared just to bump into each other.”²⁶

In the Soviet view, especially in recent years, the maneuvers “confirmed the correctness of the deep operations theory.” A parachute drop of 1,800 men—in which the troops rode on the wings of the planes—and 120-mile marches by tank brigades are cited as examples of farseeing operations.²⁷ But such tours de force notwithstanding, the Soviet literature itself indicates that the Red Army lacked an actual deep operations capability. The theoretical principles set down in the regulations were not converted into specific guidance for the field commands, and their training did not go beyond the approach march and the meeting engagement.²⁸ The charges in the style of medieval cavalry that Martel saw apparently were examples of the latter. The Five Year Plans provided the machines but not the cadres of trained personnel to run, maintain, and command them. And the technology itself had shortcomings: tanks did not carry radios, and few aircraft did.²⁹ The technological reconstruction of the Red Army was being undertaken in a predominantly nontechnological society, in all of its strata—including the upper level of the military. In the late 1930s the slogan had to be switched from “Technology will decide all!” to “Cadres will decide all!”

The Indispensable Theory

“Events in the spring of 1937,” Isserson wrote, “shook the Red Army to its foundations: the personality cult of Stalin spread arbitrariness and illegality to the most senior command ranks . . . and the army was, in substance, decapitated.” Those who had originated the theory of deep operations “were declared enemies of the people,” and the theory itself was “disavowed” and “eliminated from all the forms of instruction.” The “set-back,” Isserson continued, “turned out to be temporary.” He maintained that the German 1939 campaign in Poland, to some extent, and that against France in 1940, conclusively showed Soviet military theory “to have been

on the right track”; but the “young, honest, and courageous” leaders who replaced those lost in the purge “could not function correctly in the maelstrom of events at the start of the war” (after Germany had invaded the Soviet Union) because they were not “sufficiently oriented in the innovative aspects of deep operations.”³⁰

The current “authoritative” approach to the purge and the years immediately following it deplores the loss of experienced senior officers but stresses strength and continuity, which are said to be evident from the reaffirmations and refinements of deep operations introduced into projected field regulations in 1939, 1940, and early 1941.³¹ This view attributes the disasters early in the war to excessive preoccupation with the offensive aspect of deep operations, both before and after the purge. The *History of the Second World War* points out that the military leadership, thinking itself practical, “left a strategic defensive out of consideration.”³²

Nonetheless, Isserson’s account and the other Soviet accounts are in fundamental agreement that the use of deep operations, as such, was the outstanding innovation of World War II. In taking this position, they ignore the strong evidence that the deep operation was no longer a novelty in European military thought well before World War I ended and that the chief concern in the interwar period was to devise a sufficiently effective means of executing it. The German blitzkrieg campaigns of 1939–41, the first applied deep operations of World War II, did not so much prove the feasibility of the form as demonstrate the means by which it could be implemented at far greater speed and more decisively, reliably, and cheaply than had been considered possible.

Whether the lesson of the blitzkrieg was absorbed by the Red Army even as late as 1941 is in considerable doubt. Orthodox theory, Soviet included, had expected that deep operations would restore enough mobility and maneuver to the battlefield to reduce the superiority of the defensive but not enough to eliminate it; and this, apparently, was what the French campaign, as Isserson stated, was taken to have “confirmed.” Right up to the invasion of the Soviet Union, according to Marshal Georgi K. Zhukov, who was then Chief of the General Staff, “The Peoples Commissariat of Defense and the General Staff believed that war between such big countries as Germany and Russia would follow the existing scheme.”³³ The “scheme” assumed an initial hiatus of two to three weeks after hostilities began during which the opponents would feel each other out.³⁴ Subsequently the war would “inevitably take on a character of extended attrition, with battles being decided primarily by the ability of the rear to pro-

vide the front with more material and human resources over a prolonged period of time than were available to the enemy.”³⁵

The Poles, the French, the British, and, for that matter, the Germans, with the exception of a relative few like Guderian, had believed essentially the same. The Polish Army had been cut to pieces in a week, the British driven off the Continent in twenty-five days, and France struck down in six weeks. The Soviet Union survived because it could do what would have been impossible for any of the others: trade lives and territory for time until the enemy was rendered weak in the knees by his own successes. After that happened, which it did for a time in the winter of 1941–42 and for good in the fall of 1942, the rest of the war in fact took on “a character of extended attrition.”

The resulting paradox—a disastrous misconception assuming the appearance of a profound truth—is, of course, not recognized as such anywhere in the Soviet literature; yet it is the keystone that with some corrective artifice currently holds the deep operations theory aloft. It enables the theory to rise above dubious and deleterious features in its past and emerge, in the words of the *Military Encyclopedia*, as “highly useful and indispensable” to the Soviet resurgence and victory in the war.³⁶ All that is needed by way of artifice is to divert attention from a couple of facts—specifically, that, after late 1942, growing Soviet superiorities in men and materiel and German declines in both let the Soviet command choose the style in which the war would be fought, and that the Soviets then reverted to a more massive, less sophisticated version of the 1936-model deep operations.

Although the German blitzkrieg had established the encirclement as the most effective maneuver in mobile warfare, and although the Soviet *Provisional Field Regulations 1936* had stated the creation of opportunities for encirclement to be a feature of the deep operation, the pursuit of such opportunities was not standard practice in Soviet World War II operations. Stalin’s leading marshals, Zhukov and A. M. Vasilevsky, indicated in their memoirs that they regarded the encirclement as the maneuver of choice, but Zhukov said, “I knew [in 1943 and after] that J. V. Stalin was disinclined for several reasons to contemplate any large-scale encirclement operations.”³⁷ The chief reason was that on the basis of Stalingrad and subsequent operations, Stalin considered the maneuver unsuitable for the Soviet forces. General S. M. Shtemenko, a veteran of the General Staff, made clear that this was not just one of Stalin’s quirks when he wrote, “Experience had shown that, in view of the time factor, the com-

plexity of such an operation, and other considerations, it was not worth encircling every enemy grouping.”³⁸ In plain language, the encirclement was not a maneuver the Soviet forces could execute dependably. Although Stalingrad is claimed to have set an example for military art on a par with Cannae, the Red Army undertook few encirclements after Stalingrad and none at all between late winter 1943 and the summer of 1944.³⁹

During the last years of the war, Soviet deep operations primarily employed the “salient thrust” (also called the “splitting” or “splintering blow”), a breakthrough exploited solely to achieve a deep penetration. Executed at fairly close intervals along the front, salient thrusts had the effect of literally dragging the enemy front with them.⁴⁰ Tactical proficiency could be minimal; mass in troops and weapons was the essential. Full success required an enemy willing to stand and be cut to pieces, which the Germans, on Adolf Hitler’s orders, were, after 1942. This circumstance also made it possible, as Soviet strength increased and German strength declined, to increase the depths and rates of penetration from 160 kilometers at 15 kilometers per day in late 1942, to 550 kilometers (in one instance) at 26 kilometers per day in 1945.⁴¹

A “Significance Also for the Present”

The first postwar period (in the Soviet reckoning), from 1945 to 1953—which coincides with the last years of the Stalin regime, it is safe to assume, not by accident—is the most obscure in the whole of Soviet history with respect to military theory and doctrine. Everything published during that time was devoted to fitting the whole of Soviet wartime performance into a framework of generalizations giving credit to Stalin’s genius. What absolutely would not fit was ignored or, as in the instance of the 1941 and 1942 defeats, blamed on the perfidy of the enemy and the Soviet Union’s former allies. The post-Stalin literature on the period 1945 to 1953 is sparse, and what does exist seems to be an effort to graft a new top on the trunk of the past while continuing to enjoy the fruit of the old. The theory of deep operations is said to have been “perfected” during those eight years with “the support of the wealth of experience acquired during the war.” That experience, however, is now somewhat changed. The salient thrust has disappeared, and the “encirclement and annihilation of the enemy’s main groupings” is declared to have been the “basic form in the conduct of operations.”⁴²

The second postwar period began in 1954 and continues today. It is divided into two phases: one to 1960, in which the Soviet armed forces were

“adapted” to nuclear weapons; the other since 1960, in which theory and doctrine along with the entire military establishment have been converted to “nuclear-missile war.”⁴³ With regard to the role of deep operations, the *Military Encyclopedia* states:

The term “deep operations (battle)” has not been used in official documents since the 1960s, but the general principles of that theory did not lose their significance also for the present.⁴⁴

The encyclopedia article ends with that sentence, leaving the reader to draw his own conclusions concerning what the “significance” might be and why a theory having continuing importance in the mid-1970s should have been officially shelved more than a decade earlier, apparently for good. Both questions could be answered simply enough in the context of the nuclear conversion if they did not provoke two others: Why has the deep operations theory received the greatest attention after it and the form of warfare to which it applies were superseded in Soviet military thought? And why has its stature seemed to be sharply on the rise since then? These questions suggest that the significance of the theory “also for the present” could be more than residual significance.

In part the present significance of the deep operations theory no doubt devolves from the campaign against Stalin’s so-called personality cult begun by Nikita Khrushchev in his speech to the 20th Party Congress in 1956. Khrushchev “revealed” that Stalin had pushed his claim to omniscience in matters of national concern, above all in military affairs, far beyond the borderline of the ridiculous. The government, Khrushchev announced, proposed to “correct” the erroneous views widely spread under Stalin by publishing “serious books” on several subjects, among those, the Great Patriotic War, the Soviet part of World War II.⁴⁵ The speech was apparently more spontaneous than such things usually are in the Soviet Union, and the war was subsequently found to require not one but six volumes, the first of which could not be put into print until 1960. Shorter accounts, most notably the *Second World War*, edited by Platonov, provided interim coverage and previews of more extensive disclosures to come.

The multivolume work, as we now have seen, did not make good on the previews as far as the deep operations theory is concerned; the achievement claimed in the Platonov book was toned down in the first volume of the *History of the Great Patriotic War*. The frame of reference within which the war history was being written had changed. By 1960, Khrushchev was fostering his own personality cult, and his generously embellished accomplishments were being made to figure heavily in the

war. But he could not assume the mantle of Stalin outright, nor could he share fully in a massive transfer of credit to a theory worked out in the early 1930s—when he was no more than a functionary in the Moscow party apparatus—by men most of whom were long dead. Consequently, the *History of the Great Patriotic War* depicted the mastering of the national crisis as an essentially extemporaneous feat owing more to leaders like Khrushchev, purportedly men whose innate talent the war had brought to the fore, than to the guidance of an inherited theory.

By coincidence, and more significant in the long run, the deep operations theory also could not be made to serve Khrushchev's policy. During the interval between the party congress and the publication of the first volume of the *History of the Great Patriotic War*, the Soviet armed forces had begun the nuclear conversion; in January 1960, Khrushchev announced that henceforth the Soviet Union could rely almost exclusively on its nuclear and missile power. He told the Supreme Soviet that conventional forces were becoming obsolete, nuclear firepower would decide any future war, and military personnel strength could therefore be cut by a third.⁴⁶ At that point, the best service the *History of the Great Patriotic War* could perform was to give conventional operations, in both practice and theory, a decent—and restrained—valedictory.

Nuclear doctrine took over in 1960, and, as the *Military Encyclopedia* says, the term “deep operations” passed out of official use. But, from the first, Khrushchev's contention that conventional arms were dispensable had far less easy going. Whether he was ever entirely serious about it may be questioned, though he insisted in his memoirs years later that he was.⁴⁷ The force reduction did not materialize, and Sokolovsky's *Soviet Military Strategy* held the mass army to be as much a necessity in nuclear war as it ever had been. Nevertheless, although *Military Strategy* mitigated the Khrushchev thesis in that respect, it upheld nuclear primacy and assigned the deep missions to nuclear weapons, leaving the conventional forces only “operations on a relatively shallow front where the opponent's ground forces are concentrated.”⁴⁸

The commitment to nuclear warfare survived Khrushchev's downfall, having by then been acclaimed as “the [nuclear] revolution in military affairs,” on which *Military Strategy* remained the most definitive open statement, going into its third edition in 1968 almost unchanged.⁴⁹ In other publications, however, as soon as the involvement with Khrushchev's image ceased, claims of Soviet pre-nuclear attainments in conventional warfare were adjusted sharply upward, and deep operations theory became, as has been noted, an outstanding and original contribution to military thought.

Moreover, the theory began to be presented as the model from which the German blitzkrieg—the technically most effective form of deep operations yet employed—had been derived. The final volume of the *History of the Great Patriotic War*, published in 1965, the year after Khrushchev's forced resignation, took another look at the theoretical work of the 1930s and found that work, given "concrete expression" in the 1936 Field Regulations, to have served the requirements of the time better than the regulations of the armies of other nations. The German *Wehrmacht* was said to have borrowed from the Soviet regulations extensively in formulating its own.⁵⁰ Five years later, Marshal Zakharov added:

Before 1936 operational and tactical deep battle were not even mentioned in the publications and official directives of the German and other armies. In the works published by German generals just after 1936, it could be seen how German military thought smugly and in perverted fashion appropriated the Soviet ideas on new forms of armed conflict.⁵¹

The subordination of German doctrine to prewar Soviet operational doctrine has more recently been accompanied by a reassessment of the blitzkrieg in action as well. Formerly dismissed as nothing more than a desperate gamble on a short war and a reckless fixation on surprise, it has come to be regarded—in instances other than its employment against the Soviet Union—as innovative and effective in its operational aspect. As it was used against the Soviet Union, of course, it remains "bankrupt and adventuristic."⁵² A recent study done at the War Academy of the General Staff credits the early German operations with having introduced "many definite improvements and sometimes also new forms of conducting offensive activity."⁵³ The 1939 German campaign in Poland is said in the *History of War and the Art of War* to have been "important to the development of the art of war," in that it demonstrated the "great results" attainable by air and armored forces acting as spearheads for infantry and artillery.⁵⁴

The early German operations in World War II are also now seen as demonstrating the importance of the initial period of a war "to its whole course and outcome."⁵⁵ The *History of War and the Art of War* finds the German campaign in Poland to have disclosed the "growing role of strategic surprise in the opening stage of a war," and the campaign in Western Europe the following year to have instituted trends in the conduct of operations toward larger scale and higher speed. The outstanding lesson of the early period is said to be that "the stronger the military means, the greater the effect they will have at the start of a war, especially in conjunction

with an initial surprise blow.”⁵⁶ The *History of Soviet Military Thought*, published by the Military History Institute of the Defense Ministry, makes similar observations on the blitzkrieg and adds, “Precisely this was foreseen in the Soviet theory of deep operations, which was formulated already in the early 1930s.”⁵⁷

In current Soviet doctrine, the decision of 1960 prevails: nuclear weapons are “the main and decisive means” of waging general war.⁵⁸ The destruction of the enemy in the depth of his deployment would presumably fall to such weapons. On the other hand, as former Minister of Defense Marshal A. A. Grechko put it:

Soviet military science does not absolutize such [nuclear] weapons. It is also not inherent in Soviet military science . . . to give preference in modern warfare to some certain individual service of the armed forces [the Strategic Rocket Forces being one service]. Soviet military science believes that . . . a modern war . . . will include active and decisive operations by all services of the armed forces, coordinated as to goal, time and place.⁵⁹

Grechko also said, however, that the Strategic Rocket Forces are “the basis for the combat might of the Soviet Armed Forces.”⁶⁰

It seems, then, that a distinction is still to be drawn between the “main and decisive” forces and the merely “decisive”—the status of the latter, the conventional forces, being dependent on how closely they can match the capabilities of the nuclear missile forces. Of those capabilities, the outstanding two are war readiness and surprise, which are taken to confer the ability to launch a sudden, overwhelming attack that will devastate and paralyze an enemy as soon as war begins. Others are the high speed and early successful termination of operations. The recent refurbishment of the deep operations theory and the appropriation of the German blitzkrieg serve to demonstrate that all four of these capabilities were at least implicit guiding principles of Soviet thinking on conventional warfare long before the nuclear era. As a result, the Deputy Commandant of the War Academy, Colonel General F. Gayvoronskiy, writing in 1978, could view the development of Soviet operational art from the 1920s to the present as a single continuous process that reached the point, after the 1950s, at which “motorized infantry and armored forces, in collaboration with other elements of the Armed Forces and the Army, could carry exceedingly complicated combat missions with decisive objectives to great depths at high speed.”⁶¹

From this, he added, Soviet military-theoretical thought “reached the conclusion that [Soviet] forces must prepare to conduct offensive and defensive operations utilizing all aspects of contemporary armament.”⁶²

Conclusion

The question raised at the outset—Why has the deep operations theory received prolonged attention and progressively heightened prominence in the Soviet military literature?—appears to have several answers. For one, the theory performs a cosmetic function by providing a rational substitute for the vacuous theorizing of the late Stalinist period, one that can—with some embellishment—be made to sustain the claim that the theoretical principles of modern mobile warfare were, in the words of the *History of Soviet Military Thought*, “discovered first” in the Soviet Union.⁶³ Also, it has opened an avenue of indirect attack on issues that could not be confronted head-on. Manifestly, the military establishment did not concur in Premier Khrushchev’s contention that nuclear explosives and rockets had rendered large conventional forces obsolete, nor did it unreservedly accept the role assigned to conventional forces in the nuclear strategy officially adopted in the early 1960s. History has supplied a safe ground on which to sustain the nonoccurrence and develop the counterargument.

In the most recent literature, the deep operations theory appears to be entering the mainstream of Soviet military thought. According to Grec-hko, the conventional forces have undergone “great improvement in the fire, shock, and maneuver capabilities of the troops, which permits assigning them very decisive missions on the battlefield which they are capable of accomplishing without resorting to nuclear weapons.”⁶⁴

Soviet strategy is said in the *Military Encyclopedia* to assume that “a world war could begin and be carried on for a certain period of time” without the employment of nuclear weapons. That strategy is also said to contemplate as a possibility “a continental theater of war” in which the “initial and succeeding operations” could be undertaken primarily by the conventional forces.⁶⁵ In such circumstances, the deep operations theory (plus blitzkrieg) might well have “significance also for the present.”

About the Author (from the 1982 article)

Earl F. Ziemke is a research professor of history at the University of Georgia in Athens, Georgia. During World War II, he served with the US Marine Corps in the Pacific. Dr. Ziemke holds MA and PhD degrees from

the University of Wisconsin. His books include *The German Northern Theater of Operations, 1940–1945*; *Stalingrad to Berlin: The German Defeat in the East*; and *The U.S. Army in the Occupation of Germany, 1944–1946*.

Notes

1. Institut Marksizma-Leninizma, *Istoriya Velikoy Otechestvennoy Voyny Sovetskogo Soyuza 1941–1945* (Moscow: Voen. Izdat., 1961), I, 442 (hereafter cited as *IVOV*).
2. Heinz Guderian, *Achtung—Panzer!* (Stuttgart: Union Deutsche Verlagsgesellschaft, 1937), 147–49.
3. Institut Marksizma-Leninizma, *Iosif Vissarionovich Stalin* (Moscow: Izdat. Politicheskoy Literatury, 1949), 231.
4. Raymond L. Garthoff, *Soviet Military Doctrine* (Glencoe, IL: Free Press, 1953), 69, 101.
5. See John Erickson, *The Soviet High Command* (London: Macmillan & Co., 1962).
6. S. P. Platonov, ed., *Vtoraya Mirovaya Voyna* (Moscow: Voen. Izdat., 1958), 171.
7. *IVOV*, I, 442.
8. V. D. Sokolovsky, *Soviet Military Strategy* (Englewood Cliffs, NJ: Prentice-Hall, 1963), 230, 233, and *passim*.
9. G. Isserson, *Razvitiye teorii sovetskogo operativnogo iskusstva v 30-e gody*, in *Voyenno-istoricheskii zhurnal (ViZ)* (Nos. I and 3, 1965).
10. M. V. Zakharov, ed., *50 let vooruzhennykh sil SSSR* (Moscow: Voen. Izdat., 1968), 217.
11. Ministerstva Oborony SSSR, *Istoriya voyn i voyennogo iskusstva* (Moscow: Voen. Izdat., 1970), 104.
12. Ministerstva Oborony SSSR, Institut Voennoy Istorii, *Sovetskaya voyennaya entsiklopedia (SVE)* (Moscow: Voen. Izdat., 1976–80), II, 574.
13. Isserson (No. I), 36. In the Soviet practice, deep operations as a form of war usually appears as “deep operations (battle) [*glubokaya operatsiya (boy)*].
14. On these and other features of World War I doctrine, see Timothy T. Lupfer, *The Dynamics of Doctrine*, Leavenworth Papers, No. 4 (Fort Leavenworth, KS: US Army Command and General Staff College, 1981).
15. M. Zakharov, “O teorii glubokoy operatsii,” in *ViZ* (No. 10, 1970), 12.
16. See Hermann Foertsch, *Kriegskunst Heute und Morgen* (Berlin: Zeitgeschichte-Verlag Wilhelm Andermann, 1939), 230–36.
17. *IVOV*, I, 444.
18. Ministerstva Oborony SSSR, Institut Voennoy Istorii, *Istoriya Vtoroy Mirovoy Voyny 1939–1945 (IVMV)* (Moscow: Voen. Izdat., 1973–), III, 414.
19. *SVE*, II, 576.
20. On infantry speed in the mass, see Foertsch, *Kriegskunst Heute und Morgen*, 231.
21. At the end of the second Five Year Plan in 1938, the army had 15,000 tanks, over 55,000 artillery pieces, and it “had received” close to 25,000 aircraft of various types. See Zakharov, *50 let*, 201–2 and Ministerstva Oborony SSSR, Institut Voennoy Istorii, *Sovetskiye vooruzhennyye sily (SVS)* (Moscow: Voen. Izdat., 1978), 191.

22. Zakharov, *50 let*, 196.
23. Isserson (No. 1), 37; Zakharov, “O teorii,” 13; Guderian, *Achtung—Panzer!*, 147–48.
24. This summary of the deep operations doctrine is derived from *IVOV* 1, 442–44; Isserson (No. 1), 42–45; Erickson, *The Soviet High Command*, 800–1; *IVOV*, III, 414–15; and *SVS*, 200–2.
25. Guderian, *Achtung—Panzer!*, 148.
26. Giffard Martel, *The Russian Outlook* (London: Michael Joseph, 1947), 16–24.
27. *SVE*, V, 121.
28. *IVOV*, I, 442–44.
29. *IVOV*, I, 455.
30. Isserson (No. 3), 55.
31. See I. A. Korotkov, *Istoriya sovetskoy voyennoy mysli* (Moscow: Izdatc “Nauka” 1980), 158–61.
32. *IVMV*, III, 415.
33. G. K. Zhukov, *The Memoirs of Marshal Zhukov* (New York: Delacourt Press, 1971), 215.
34. Sokolovsky, *Soviet Military Strategy*, 1–34.
35. S. P. Ivanov, *Nachalnyy period voyny* (Moscow: Voen. Lzdat., 1974), 206.
36. *SVE*, II, 577.
37. Zhukov, *The Memoirs of Marshal Zhukov*, 479.
38. S. M. Shtemenko, *The Soviet General Staff at War* (Moscow: Progress Publishers, 1970), 177.
39. See *IVOV*, III, 65; *IVMV*, III, 339 and V, 328; and G. F. Aleksandrov et al., *Iosif Vissarionovich Stalin* (Moscow: Izdat. Pol. Lit., 1949), 194.
40. See Garthoff, 103–06.
41. F. Gayvoronskiy, “Razvitiye sovetskogo operativ-iskusstva,” in *ViZ* (No. 2, 1978), 21.
42. *Istoriya voyn*, 475–78. See also Gayvoronskiy, 24.
43. *Istoriya voyn*, 466.
44. *SVE*, II, 578.
45. Nikita S. Khrushchev, *Khrushchev Remembers* (Boston: Little Brown, 1970), Appendix 4, 559ff.
46. “Excerpts from the Address Made by Khrushchev to the Supreme Soviet,” *The New York Times* (15 January 1960): 2.
47. Khrushchev, *Khrushchev Remembers*, 515.
48. Sokolovsky, 232, 305.
49. See V. D. Sokolovsky, *Soviet Military Strategy* (New York: Crane, Rus-sak, & Co., 1975).
50. *IVOV*, VI, 180.
51. Zakharov, “O teorii,” 19. The following remarks by Giffard Martel (page 21) concerning British and Soviet armored doctrine in 1936 have a bearing on this claim: “Both we and the Russians had stressed the point that armies had always

consisted of two types of troops, mobile—and slower moving infantry. Neither the Russians nor ourselves had, however, sorted out our ideas very clearly by that date, We had neither of us got as far as the armoured division for the cavalry role.”

52. *SVE*, V, 363.

53. Ivanov, 224.

54. *Istoriya voyn*, 122.

55. *Istoriya voyn*, 131.

56. *Istoriya voyn*, 122–31.

57. I. A. Korotkov, *Istoriya sovetskoy voyennoy mysli* (Moscow: “Nauka,” 1979), 154.

58. Zakharov, *50 let*, 522.

59. A. A. Grechko, *The Armed Forces of the Soviet State* (Washington, DC: Government Printing Office, 1977, rpt. from Moscow: Voen. Izdat., 1975), 150.

60. Grechko, 79.

61. Gayvoronskiy, “Razvitiye sovetskogo operativ-iskusstva,” 25.

62. Gayvoronskiy.

63. Korotkov, *Istoriya sovetskoy voyennoy mysli*, 235.

64. Grechko, *The Armed Forces of the Soviet State*, 147–48.

65. *SVE*, VII, 564.

Chapter 3

Soviet Operational Formation for Battle: A Perspective

Lt. Col. David M. Glantz

A central feature of combat at the operational and tactical level is the manner in which forces are organized and deployed for battle—specifically their operational formation and combat formation. The operational formation and the manner in which it functions is the vehicle which expresses the operational theory of a nation's military force and converts that theory into practice. If theories are correct and well-executed, the operational formation will successfully project combat power forward and prevail. Anyone who wishes to understand how and why the Soviet army will operate in war must begin by investigating the central issue of Soviet operational formation. More importantly, he must investigate operational formation in its proper context.

The Soviets define operational formation (*operativnoe postroenie*) as “the grouping of the forces and means of operational units (front, armies) created for the conduct of operations.”¹ At the tactical level, the Soviets define combat formation (*boevoi poriadok*) as “the disposition of battalions, regiments, and divisions with their means of reinforcements for the conduct of battle.”² Since the early 1930s, there has been a remarkable consistency in the evolution of Soviet theoretical operational formation, an evolution responsive to the changing conditions and context of war.

At times, this consistency has been distorted by the difficulty of converting theory into practice and by events that have forced the Soviets to temporarily depart from theory. Such was the case in the period immediately prior to World War II and during the opening months of the war in the east (1941) when realities overcame theory and forced marked aberrations in Soviet military practices.

Lacking a knowledge of this evolution of Soviet military theory, it would be easy to approach contemporary Soviet practices in a vacuum and to treat those practices out of context, attributing to them a new and revolutionary nature. Such a lack of historical perspective inevitably results in misunderstanding and faulty interpretation of the nature and meaning of current Soviet military practices.

This chapter is a reprint of Lt. Col. David M. Glantz, “Soviet Operational Formation for Battle: A Perspective,” *Military Review* 63, no. 2 (February 1983): 2–11.

The fact is that Soviet operational formations (and combat formations) are derived from the past and conditioned by the present. As intense students of military history and the practice of war, the Soviets have studied operational formations of the past. And, at every period in the present, they have adjusted these formations to capitalize on the wisdom of past successes, taking care to consider the realities of the present.

Soviet operational and tactical military theory in the 1920s and 1930s owed a clear debt to the experiences of the Russian Civil War (1918–21). The concept of mobile operations on a broad front in great depth, the rapid redeployment of forces over wide expanses of territory, the use of shock groups for creating penetrations and the widespread use of cavalry forces as “mobile groups” exploiting offensive success were all legacies of the civil war.³ These legacies were reinforced by the ideology of revolution which stressed the offensive and emphasized radical and unorthodox military techniques. The climate of the post-civil war years was conducive to Soviet acceptance of new concepts such as mechanized warfare and the offensive uses of the tank.

The major problem facing the Soviets during the 1920s was that of building an industrial base sufficient to equip such a mobile mechanized force. Until such a base was present, little could be done to implement their latent offensive theory. By 1929, the intent of Soviet offensive military theory became clearer. The field regulations of 1929 (*Ustav*) established the aim of conducting “deep battle” (*glubokii boi*) to secure success to the tactical depth of enemy defenses by the simultaneous use of infantry support tanks and long-range-action tanks with infantry, artillery, and aviation support.⁴ This prescription for combined arms battle involved creation at front and army levels of an operational formation consisting of shock groups and holding groups supported by artillery groups and a reserve.

The shock group (two-thirds of the force) would deploy in one or two echelons on the main attack axis while holding groups (one-third of the force) deployed in a single echelon on the secondary axis. The shock group would conduct the penetration (or envelopment) in close coordination with tanks, artillery, and aviation, while mobile units of cavalry, tanks, and motorized infantry conducted the exploitation and pursuit.

This statement of intent was followed shortly by the forced industrialization and collectivization of Soviet industry and agriculture. These programs were designed, in part, to create conditions conducive to the implementing of those theories expressed in the *Ustav* of 1929.

From 1929 to 1935, military theory matured in tandem with the technical reconstruction of military forces. By 1935, the theory of deep battle to operational depths (50 to 100 kilometers) was perfected. In March 1935, the Workers and Peasants Red Army issued “Instructions on Deep Battle” declaring:

Deep battle is battle with the massive use of new mobile and shock forces for the simultaneous attack of the enemy to the entire depth of his combat formation with the aim of fully encircling and destroying him. . . . The new means and tactics of deep battle increase the importance of surprise.⁵

The *Ustav* of 1936, produced by Marshal Mikhail N. Tukhachevsky and his close associates, clearly defined the nature of deep battle as:

Simultaneous assault on enemy defenses by aviation and artillery to the depths of the defense, penetration of the tactical zone of the defense by attacking units with widespread use of tank forces and violent development of tactical success into operational success with the aim of complete encirclement and destruction of the enemy. The main role is performed by the infantry, and the mutual support of all types of forces are organized in its interests.⁶

To implement deep battle, the operational formation included shock and holding groups of two or three echelons. The shock group of rifle divisions formed in two or three echelons with regiments abreast operating on the main axis of the offensive while holding groups conducted supporting attacks. Tank battalions supported the infantry.

Strategic tank groups (mobile groups) were assigned to commanders of armies, corps, or divisions to penetrate to the rear of the hostile defense, crush hostile reserves and headquarters, destroy main enemy artillery groups, and cut off enemy retreat. According to theory, rifle corps and rifle di-



Figure 3.1. Mikhail N. Tukhachevsky. Courtesy of Wikipedia Commons, Public Domain.

visions acted as shock and holding groups, and tank (mechanized) brigades and tank (mechanized) corps, created in the 1930s, served as mobile groups to exploit offensive success to tactical and operational depths.

The concepts enunciated by Tukhachevsky in 1936 underwent little change and, in fact, provided a base for subsequent theoretical development during World War II and the postwar years. However, while theory remained consistent, the experiences of the late 1930s distorted theory and created a gap between theory and practice.

The purges of 1937–38 which liquidated Tukhachevsky and his generation of innovative officers also cast a shadow on his theories. Those officers who remained at the top of the military hierarchy were generally conservative and reluctant, for political reasons, to embrace Tukhachevsky's ideas. In addition, the experiences of Soviet tank specialists in the Spanish Civil War cast doubt on the feasibility of using large tank units in combat because of the difficulty of controlling them and their vulnerability to artillery fire.⁷

The Soviet occupation of eastern Poland in September 1939 also pointed out the difficulties involved in employing large mechanized forces.⁸ Consequently, in November 1939, the large tank corps (four in number) were abolished, to be replaced in the future by smaller motorized divisions.⁹ In essence, faith in deep battle waned a bit, only to be rekindled by events occurring in France in 1940.

After viewing the French debacle of May 1940, the Soviets hastily attempted to create a force structure capable of implementing Tukhachevsky's concept of deep battle. The Soviets formed large mechanized corps (twenty-nine in number) consisting of tank and motorized divisions and numbering, on paper, 1,031 tanks each.¹⁰ However, none of the corps was fully trained or equipped. Good leadership was scarce, production of new, modern T34 and KV tanks lagged and the corps were poorly integrated into the force structure.

The German invasion of June 1941 smashed the large and elaborate but poorly led Soviet force structure. Therefore, the Soviets abolished rifle corps and mechanized corps and truncated the size of armies and rifle divisions.¹¹ The evident lack of experienced leadership and the wholesale loss of units, manpower, and equipment during the initial battles of June and July 1941 forced the Soviets to temporarily abandon hopes for conducting deep battle. Yet prewar views on combat, in general, and operational formation, in particular, emphasized offense to the almost total exclusion of defense.

The harsh education of the Soviets by the Germans in the art of defense caused massive losses and rendered the Soviets incapable of putting together forces necessary to carry out Tukhachevsky's offensive concepts. Faced with the German advance, Soviet commanders counterattacked in classic two-echelon configuration without concentrating their scarce forces and limited firepower. The futility of the counterattack at Smolensk in July, the wholesale expenditure of the mechanized corps of the South-West Front in July and other counterattacks vividly demonstrated the need for radical temporary changes in offensive operational formation for battle.¹² Those changes occurred in late 1941 and in 1942.

Stavka Directive Number 3, issued on 10 January 1942, amplified an earlier order of the Western Front and directed that commanders use shock groups (mobile groups) in offensive combat to concentrate forces and create operational densities required for achieving success.¹³ Such groups were used in the Soviet counteroffensive around Moscow in November and December 1941. The general paucity of armor limited the effectiveness of these shock groups. Consequently, the *Stavka* ordered that those tank forces that did exist be used in a concentrated fashion to support infantry formations.¹⁴

During the winter offensive of 1942, Soviet commanders used make-shift combinations of tank brigades, cavalry corps and divisions, rifle divisions, and even ski battalions and brigades as mobile groups in an attempt to create forces that could penetrate into German rear areas.

In 1942, the quantities of tanks in the Soviet force structure grew as did the knowledge of how to use them. Larger tank and mechanized forces slowly emerged which were capable of developing battle to the depth of the enemy defense. Increased production of artillery also permitted the formation of artillery and antitank groups which continued to grow in size and sophistication at every level of command during the remainder of the war. In the spring of 1942, the Soviets created new tank "corps" of division size, including almost 200 tanks each.¹⁵

During the Kharkov operation (May 1942), the South-West Front used two of the new tank corps in an abortive attempt to achieve offensive success. Faulty intelligence, the limited offensive power of the new tank corps, and a major attack by large German panzer formations spelled doom for the Soviet offensive.

To further improve the offensive punch of their forces, the Soviets, in the summer of 1942, created large tank armies of ad hoc composition (tank corps, rifle divisions, and cavalry divisions) which they used in an attempt

to halt the German drive toward Stalingrad. Again, the Soviets found these large formations unwieldy and of limited effectiveness against the Germans. To further improve the offensive power of infantry formations, the *Stavka* issued Order Number 306 in October 1942.¹⁶

This order mandated a practice already used in some units. Specifically, divisions, regiments, battalions, and companies were required to deploy in single echelons to ensure the bulk of their firepower was employed forward. This practice persisted well into 1943 until the depth of German defenses required deeper Soviet echelonment.

In the Stalingrad counteroffensive in November 1942, the Soviets formed their three *fronts*, each in single echelons of armies, with armies in two echelons of divisions. Tank corps and the newly formed mechanized corps, acting in conjunction with cavalry corps, served as the mobile groups of armies and carried out the successful encirclement of the German 6th Army. Yet the Soviets still lacked a mobile formation of sufficient size to operate as the mobile group of a *front*.

Throughout the winter of 1942–43, the Soviets continued to commit tank and mechanized corps to deep operations against the overextended Germans. Although the Germans parried these thrusts and achieved tactical successes against most of the Soviet mobile groups, the cumulative pressure of the Soviet offensive forced the Germans back to the Kharkov area. During these operations, the Soviets tested the concept of grouping tank corps and mechanized corps in full-fledged tank armies. The tests proved successful, and the Soviets began creating fully mobile tank armies made up of two tank corps and one mechanized corps.¹⁷

These new tank armies (ultimately six were formed), comprising up to 800 tanks each, would function as the mobile group of the *front* while separate tank and mechanized corps would perform the same functions at the army level. By mid-1943, the complexity of combined arms forces increased as the rifle corps link was reestablished in combined arms armies. With this development, Soviet armies usually adopted a single-echelon operational formation (of rifle corps abreast) with rifle divisions in army reserve. Rifle corps formed in two echelons of rifle divisions.

At Kursk in July 1943, the Soviets, for the first time, tested their new *front* mobile groups. The 1st Tank Army participated in the Voronezh Front defense against the German 4th Panzer Army, while the 5th Guards Tank Army won fame in its successful counterattack against German panzers at Prokhorovka on 12 July. In the Orel and Belgorod-Kharkov offensives

of July and August 1943, the Soviets unleashed tank armies and tank and mechanized corps as mobile groups of *fronts* and armies respectively.

Committed on the first day of combat, the 1st Tank Army and the 5th Guards Tank Army completed penetration of German defenses to the operational depth and, by the fifth day of the operation, pushed 120 kilometers into the German rear area. In contrast to their earlier experiences against Soviet mobile groups, in 1943, the Germans could temporarily halt the groups but could not drive them back. Until the end of the war, tank armies and separate tank and mechanized corps performed the role of mobile groups, usually attacking from the second echelon to complete the penetration, exploit the penetration, or pursue German forces. By 1945, mobile groups often consisted of multiple tank armies at *front* and combinations of tank and mechanized corps at army level.

As mobile groups grew in number and size, the Soviets forced the Germans to relearn the art of defense just as the Soviets had learned it in 1941. As German defenses became deeper and more sophisticated, the Soviets had to echelon their forces more deeply to overcome the defenses. *Fronts* and armies usually deployed in two echelons. The first echelon penetrated enemy division and corps defenses, while the second echelon penetrated army defenses from the march and added to the strength of mobile groups. To further bolster the power of the offense, artillery groups at corps and army, antitank and antiaircraft groups, tank reserves, engineer reserves, and mobile obstacle groups became a standard element of Soviet operational formations.

However, the use of two-echelon *front* and army formations did not preclude use of single (or triple) echelons if the configuration of the defense warranted it. Most of the operations on the right bank of the Ukraine in early 1944 were by *fronts*, armies, and rifle corps in single echelons. During the Korsun-Shevchenkivski operation (24 January–17 February), the 6th Tank Army attacked from the *front's* first echelon. In the Belorussian operation (June–August 1944), *fronts* formed in a single echelon of armies with tank armies as *front* mobile groups. The Soviet strategic offensive in August 1945 against the Japanese in Manchuria found two of the three *fronts* organized in single echelons.

In addition to the common elements found in Soviet operational formations during the war years (echelons, mobile groups, artillery, antitank, antiaircraft, and engineer groups), other functional groupings evolved. The Soviets created operational groups as temporary units operating on separate operational axes (such as cavalry-mechanized groups) or as temporary

command staffs to manage forces fulfilling a particular sub-mission of a large unit (regrouping of forces or concentration in a separate sector).¹⁸

One of the most important functional groupings to emerge was the forward detachment. These were mobile units of varying size (ranging from reinforced tank brigade to tank corps) whose missions were to penetrate into the depth of the defense to capture important objectives, thus facilitating the advance of main force units.

The Soviets used forward detachments throughout the war, and, as time passed, the number, size and scope of the missions of these detachments increased. Eventually, the Soviets used forward detachments to lead the advance of divisions, corps, and armies. In August 1945, in the Manchurian operation, reinforced tank brigades led virtually every first-echelon division and corps advance; a tank division led an army; and, in effect, a tank army led the advance of a *front*. While forward detachments were usually used during pursuit and meeting engagements, by war's end, they also initiated offensive action. In essence, by war's end, forward detachments performed operational as well as tactical missions.

In the immediate postwar years (1946–54), Soviet operational formations reflected the experiences of the recent war. *Fronts* and armies on the offensive included echelons; a mobile group; aviation, air assault (airborne and air-landing), and antiaircraft groups, as well as a mobile obstacle detachment. Combined arms armies and rifle corps of the *front* and army first echelon created penetrations, while mechanized armies (modified 1945 tank armies) and mechanized divisions (former mechanized corps) served as the mobile group for the *front* and army respectively to exploit success to the operational depth.¹⁹ Support groups and forward detachments were assigned the same functions that they had performed during the war years.

With the full mechanization of ground forces and the appearance of nuclear weapons on the battlefield, some basic changes occurred in operational formations. The military reorganization of 1954–57, by Georgi K. Zhukov, abolished mechanized armies, mechanized divisions, and rifle divisions. The reorganization created tank armies and motorized rifle divisions, thus signaling the full motorization and mechanization of Soviet forces.²⁰ This process rendered irrelevant the unique position of the mobile group in operational formations because now all units were mobile. But, while the distinct mobile group disappeared, its function of exploitation remained a valid task. Tank or motorized rifle units in second echelons (or occasionally in first echelons) now performed the exploitation function.

The appearance of nuclear weapons increased the vulnerability of conventional ground forces, required their dispersal on the battlefield (negating the old definition of mass), and increased the importance of maneuver by mobile, self-contained operational and tactical units. Concentration of forces to conduct the classic frontal penetration operation, “gnawing through” the defense, became folly, and set-piece battle in carefully patterned arrays was discarded.²¹

The comparative invulnerability of armor to nuclear strikes, the speed of armored units and the growing importance of speedy success in initial offensive operations resulted in greater emphasis on the use of tank units in first echelons. Thus, the classic function of the exploitation forces (the mobile group) blurred a bit. Exploitation could now occur initially in any operation after nuclear strikes by use of reinforced tank units in first or second echelons.

Forward detachments increased in importance as a means for rapid initial exploitation of nuclear strikes. Forward detachments were to quickly penetrate fragmented enemy defenses and destroy enemy nuclear delivery means, command posts, air defense units, and other objectives in the rear. They could also perform the more classic mission of disrupting the enemy defense and forestalling movement of enemy reserves.²² Larger tank units of division and army size would perform the classic deep exploitation function at army and *front* level.

While the Soviets maintained that a variety of echelons could be used, the two-echelon configuration seemed to offer better dispersal on the battlefield and lessened the risk associated with nuclear attack. This picture of Soviet operational formation conditioned by the “revolution in military affairs” is apparent in the writings of Vasili D. Sokolovsky, A. A. Sidorenko, V. Ye. Savkin, and V. G. Reznichenko.²³ Yet, even in the works of the latter three theorists, the seeds of change are evident.

In the late 1960s and early 1970s, the Soviets began to think more about conventional combat. Their discussions of conventional combat



Figure 3.2. Georgi K. Zhukov.
Photo by Grigory Vayl, *Life* 18, no. 7
(12 February 1945).

techniques (albeit in a nuclear context) grew, and the degree to which they investigated wartime operational and tactical experiences also increased. In particular, authors focused on the role and function of the mobile group and forward detachments as well as on the more basic questions of echeloning at all levels of command. By the mid-1970s, these studies began dropping the obligatory nuclear context and devoted more attention to basic conventional operations.

Soviet theoreticians and military historians analyzed conventional combat in a “nuclear scared” posture, in part reflecting a desire and belief that combat in the future could be kept conventional. At the same time, they looked intensely at the nature of “the beginning period of war” to ascertain what nations have done to stave off defeat if attacked or to ensure rapid victory if on the offensive. Inherent in that investigation was the tendency to look for operational and tactical techniques that could assist in preventing nuclear combat while guaranteeing rapid success on the battlefield. The French experience of 1940, the Soviet experience of 1941, and the Soviet war with Japan in 1945 served as the most important subjects for study of this beginning period of war.

Analysis of successful combat in the beginning period of war, along with study of the nature of contemporary defense, led the Soviets to several conclusions.²⁴ First, those nations succeed that quickly bring overwhelming force to bear on the enemy. The effectiveness of such a force is magnified if the enemy is not given time to fully prepare its defenses. Maximum force can best be projected if applied simultaneously across a broad front (single echelon at theater, *front* and army level). The results of the application of such a force can generate rapid penetration to the depths of the defense and possibly result in a reduced capability or willingness of an enemy to respond with nuclear weapons.

In addition, a single-echelon (with a reserve) configuration reduces vulnerability of classic second-echelon forces to conventional (or nuclear) fires. The Soviets have concluded that the most effective way to initiate such an operation is by use at every command level of tank-heavy, task-organized forward detachments of reinforced battalion or regiment size committed to battle on several axes prior to or simultaneous with the commitment of main force units. Forward detachments can begin the exploitation as well if they achieve success in penetrating defenses to a tactical depth.²⁵ Tank-heavy, task-organized operational groups of regiment, division, or army size, operating from the first echelon or reserve, can initiate or continue the exploitation on the heels of the forward detachments.

In essence, the forward detachments perform both tactical and operational missions, while the operational groups perform the function historically accorded to the mobile group (exploitation). On the surface, it appears the operational group differs from the older mobile groups in the timing of its commitment (early) and in its initial location at the time of commitment (well forward). Even that distinction breaks down with a close look at the past. There are numerous instances in 1943–45 where Soviet *front* and army commanders committed mobile groups early in the operation from positions close to the front.²⁶

In other words, the older functions of the forward detachment and mobile groups have almost merged. Together, the contemporary forward detachment and operational group create the conditions for exploitation to the depth of a defense and conduct the actual exploitation. The forward detachments are the forward elements of the exploitation forces, and the operational groups are the main body which completes the process of exploitation. This entire operational formation reflects a desire of the Soviets to commit forces to combat on a carefully timed basis to facilitate rapid penetration and steady buildup in the power of the offensive thrust (*narashchivania*) sufficient to carry it successfully to operational depths.

Supplementing the actions of ground forward detachments and operational groups are two new dimensions on the battlefield: an air assault dimension and a diversionary dimension tailored to support the timed application of ground combat power. The helicopter-delivered air assault battalion (at army or division level) will operate in coordination with ground forward detachments, as well as helicopter-borne air assault brigade at *front* level. Similarly, aircraft-delivered airborne forces in regimental strength will conduct operations in support of the operational groups of army or *front*.

A third dimension is a direct outgrowth of the Soviet World War II partisan experience. It will involve the use of numerous small diversionary units deep in the enemy rear to disrupt command, control, and communications and engage point targets which were formerly included in the mission of forward detachments (and to a degree are still included). The most important of these targets is enemy nuclear delivery means. Thus, current Soviet operational formation is a comprehensive approach to the problem of contemporary battle molded by the experiences of the past and modified by the realities of the present.

What is significant in this portrayal of the evolution of Soviet operational formation is not what type of formation the Soviets will use today.

What is important is that the current Soviet operational formation is not a unique revolutionary creation. It is a reflection of a long tradition of structuring and deploying for battle. In a sense, it represents a full maturation of the concepts Tukhachevsky espoused when he defined deep battle in 1936. It represents years of study, contemplation, experimentation, and practice. Soviet operational formation viewed in a vacuum is subject to wholesale misinterpretation. It should be studied, assessed, and understood only in the context of its past.

About the Author (from the 1983 article)

Lt. Col. David M. Glantz is the curriculum supervisor, Combat Studies Institute, US Army Command and General Staff College (USACGSC). He received a BA from the Virginia Military Institute and an MA from the University of North Carolina. He is a 1974 graduate of the USACGSC and a graduate of the Russian Language School and the US Army Institute for Advanced Soviet and East European Studies. He has served with the Department of Social Sciences and the Department of History, US Military Academy, and the Office of the Deputy Chief of Staff for Intelligence, US Army, Europe.

Notes

1. M. M. Kirian, “Operativnoe postroenie [Operational Formation],” *Sovetskaia voennaia entsiklopedia (Soviet Military Encyclopedia)*, Volume 6 (Moscow: Voenizdat, 1978), 58–60 (hereafter cited as *S.V.E.*).

2. “Boevoi poriadok” [Combat Order],” *S.V.E.*, Volume 1 (Moscow: Voenizdat, 1976), 530.

3. For a thorough review of civil war military theory and practice, see G. V. Kuz'min, *Grazhdanskaia voina i voennaia interventsia v SSSR [The Civil War and Military Intervention in the USSR]* (Moscow: Voenizdat, 1958). For a short summary, see *Istoriia voin i voennogo iskusstva (A History of War and Military Art)*, ed. I. Kh. Bagramian et al. (Moscow: Voenizdat, 1970), 78–86.

4. V. Matsulenko, “Pazvitie taktiki nastupatel'nogo boia [The Development of Tactics of Offensive Battle],” *Voенно-istoricheskii zhurnal [Military History Journal]*, February 1968: 28–29; and M. Zakharov, “O teorii glubokoi operatsii [About the Theory of Deep Operations],” *Voенно-istoricheskii zhurnal [Military History Journal]* (October 1970): 10–13 (hereafter cited as *VIZH*).

5. I. Korotkov, “Voprosy obschei taktiki v sovetskoii voennoi istoriografii (1918–1941 gg) [Questions of General Tactics in Soviet Military Historiography (1918–1941)],” *VIZH* (December 1977): 89.

6. V. Daines, “Razvitie taktiki obschevoiskovogo nastupatel'nogo boia v 1929–1941 gg [The Development of the Tactics of Combined Arms Offensive Battle in 1929–1941],” *VIZH* (October 1968): 96. Tukhachevsky was a leading Soviet military leader and theoretician from 1918–38. He commanded the Soviet Western Front in the Russo-Polish War of 1920–21 and was chief of staff of the Red Army from 1925 through 1928, an assistant in the People's Commissariat of Defense after 1934 and, in 1937, commander of the Pre-Volga Military District. He contributed to the modernization of the Soviet armament and army force structure in the 1920s and 1930s and was instrumental in the creation of aviation, mechanized, and airborne forces. As a theoretician, he was the driving force behind Soviet development of the theory of deep operations. Accused of treason and shot during the military purges of 1937–38, Tukhachevsky was “rehabilitated” in the 1960s. For a frank treatment of the affair, see Lev Nikulin, *Tukhachevsky: biograficheskii ocherk* (Moscow: Voенное Izdatel'stvo, 1964), 189–97.

7. The Soviets created their first tank brigade consisting of sixty tanks and thirty-two tankettes in May 1930. By 1932, the first mechanized corps consisting of two mechanized brigades and a rifle/machinegun brigade with 490 tanks was established. In 1936, Soviet mechanized forces numbered four mechanized corps, six mechanized brigades, six separate tank regiments, 15 mechanized regiments (in cavalry divisions), and 83 tank battalions or companies (in rifle divisions).

8. For comments on Soviet performance in eastern Poland, see F. Eremenko, *The Arduous Beginning* (Moscow: Progress Publishers, 1966), 13–18.

9. The plan was to form eight motorized divisions in 1940 and seven in the first half of 1941. The tank corps were to disband on 15 January 1941. For de-

tails of the decision, see A. Ryzhakov, “*K voprosu o stroitel'stve bronetankovykh voisk krasnoi armii 30-e gody* [On the Question of the Construction of Armored Forces of the Red Army in the 1930s],” *VIZH* (August 1968): 109–11.

10. The mechanized corps tables of organization and equipment consisted of two tank divisions, one motorized division, a motorcycle regiment, a signal battalion, a motorized engineer battalion, and an aviation troop. See A. Ryzhakov, *K voprosu o stroitel'stve*, 110. The average materiel strength of the corps in June 1941 was 53 percent, consisting primarily of obsolete T26 and BT5 tanks. Just over 1,450 tanks in the inventory were new T34 or KV tanks. S. P. Ivanov, *Nachal'nyi period voiny* [The Beginning Period of War] (Moscow: Voenizdat, 1974), 260–62.

11. The theoretical prewar army consisted of four to six rifle corps of fourteen to eighteen rifle divisions, ten to twelve artillery regiments, six to eight tank brigades, and two to three aviation divisions with a mechanized corps as the mobile group. The rifle division contained three rifle regiments; two artillery regiments; and antitank, antiaircraft, sapper, signal, and reconnaissance battalions with an optional tank company. The rifle division's strength was 14,483 men with 254 guns and mortars. In June 1941, most Soviet armies included two to three rifle corps of six to eighteen rifle divisions. By December 1941, armies consisted of five to six rifle divisions or brigades, one to two cavalry divisions, one to two separate tank brigades or battalions and reduced support units. The rifle division decreased to 11,626 men and lost one of its artillery regiments as well as part of its antitank capability. Rifle brigades of 4,400 men were formed to supplement rifle divisions. Tank brigades of three battalions, then two battalions, provided armor support (at first ninety-three tanks but, by December 1941, forty-six tanks each).

12. For details on the defeat of Soviet mechanized corps in the western Ukraine, see A. Vladimirsky, “Nekotorye voprosy provedeniia kontrudarov voiskami iugo-zaadnogo fronta 23 iunia–2 iulia 1941 goda [Some Questions on the Conduct of the Counteroffensive by Forces of the South West Front, 23 June to 2 July 1941],” *VIZH* (July 1981): 21–28.

13. *Istoriia voennogo iskusstva* [History of Military Art], ed. A. A. Stokov (Moscow: Voenizdat, 1966), 410; and A. Radzievsky, “Proryv oborony v pervom periode voiny [Penetration of a Defense in the First Period of War],” *VIZH* (March 1972): 17–18.

14. Order Number 325, 16 October 1942. *Stroitel'stvo i boevoe primenenie sovetских tankovykh voisk v gody velikoi otechestvennoi voiny* [The Construction and Combat Use of Soviet Tank Forces in the Years of the Great Patriotic War], ed. O. A. Lasik et al. (Moscow: Voenizdat, 1979), 100–2; and “Pri'kaz NKO #325 ot 16 oktiabria 1942 g. [Order of the People's Commissariat of Defense #325 of 16 October 1942],” *VIZH* (October 1974): 68–73.

15. The tank corps consisted of two, later three, tank brigades; one motorized rifle brigade; and support units. Originally, its strength was 100 tanks, but, by July, it numbered 168 tanks and, by 1945, 228 tanks.

16. Bagramian et al., *Istoriia vojn i voennogo iskusstva* [A History of War and Military Art], 194. For the text of Order Number 306, see “Prikaz NKO

#306 of 8 *oktiabria* 1942 g [Order of the People's Commissariat of Defense #306 of 8 October 1942],” *VIZH* (September 1974): 62–66.

17. The January 1943 tank army consisted of two tank corps, one mechanized corps (optional), a motorcycle regiment, an antiaircraft regiment, an antitank regiment, a howitzer artillery regiment, a guards mortar regiment (multiple-rocket launchers), a signal regiment, an aviation communications regiment, a transport regiment, an engineer battalion, and two repair and reconstruction battalions. Changes in tank army structure are best covered in A. Radzievsky, *Tankovyi udar* [Tank Blow] (Moscow: Voenizdat, 1977).

18. See N. D. Saltykov, “*Operativnaia gruppya* [The Operational Group],” *S.V.E.*, Volume 6 (Moscow: Voenizdat, 1978), 50; and M. Malakhov, “*Iz opyta sozdaniia i ispol'zovaniia operativnykh grupp v khode voiny* [From the Experience of Creating and Using Operational Groups in Wartime],” *VIZH* (June 1977): 23–29.

19. The mechanized army consisted of two tank divisions, two mechanized divisions, and support units with a total of about 1,000 tanks and self-propelled guns. The mechanized division consisted of three mechanized regiments, a medium tank regiment, a heavy tank/self-propelled gun regiment, and support units. It numbered 197 tanks and sixty-three self-propelled guns.

20. The tank army consisted of four tank divisions and support units numbering 1,400 to 1,500 tanks. The motorized rifle division comprised three motorized rifle regiments, a medium tank regiment, and support units totaling 210 tanks and ten self-propelled guns.

21. For a good description of such combat, see Stokov, *Istoriia voennogo iskusstva* [History of Military Art], 608–16.

22. For a good discussion on the utility of forward detachments, see I. Vorob'yev, “Forward Detachments in Offensive Operations and Battles,” *Voyennaya mys'*, April 1965, translated in FDD 957, 6 April 1966.

23. V. D. Sokolovsky, *Voennaia strategiia* [Military Strategy] (Moscow: Voenizdat, 1962, 1963, and 1968); A. A. Sidorenko, *Nastuplenie* [The Offensive] (Moscow: Voenizdat, 1970); V. E. Savkin, *Osnovnye printsipy operativnogo iskusstva i taktiki* [The Basic Principles of Operational Art and Tactics] (Moscow: Voenizdat, 1972); and V. G. Reznichenko, *Taktika* [Tactics] (Moscow: Voenizdat, 1966).

24. For discussion of the “beginning of war,” see S. P. Ivanov, *Nachal'nyi period voiny*; Baskalov, “*Ob osobennostiakh nachal'nogo perioda voiny* [On the Characteristics of the Beginning Period of War],” *VIZH* (February 1996): 29–34; and I. Bagramian, “*Kharakter i osobennosti nachal'nogo perioda voiny* [The Character and Peculiarities of the Beginning Period of War],” *VIZH* (October 1981): 20–27.

25. For the role of forward detachments in modern combat, see “*Peredovoi otriad* (The Forward Detachment),” *S.V.E.*, Volume 6, 282; N. Kireev, “*Primenenie tankovykh podrazdelenii i chastel pri proryve protivnika* [The Use of Tank Sub-units and Units During the Penetration of an Enemy Defense], *VIZH* (May 1970): 38–40; and M. M. Kirian, “*Armeiskaia nastupatel'naia operatsiia* [An

Army Offensive Operation],” *S.V.E.*, Volume 1 (Moscow: Voenizdat, 1976), 239–44.

26. In the Belgorod-Kharkov operation in August 1943, the Soviets committed the 1st Tank Army and the 5th Guards Tank Army to combat on the first day of the offensive about six hours after the offensive commenced. Other offensives in which mobile groups entered combat on the first day were the Korsun-Shevchenkivskyi operation (24 January 1943), the Belorussian offensive (June 1944), the Jassy-Kishinev offensive (August 1944), the Vistula-Oder operation (January 1945), and the Berlin operation (April 1945).

Chapter 4

Why the OMG?

Maj. Henry S. Shields, US Air Force Reserve

The US Army is not the only military force in the world developing and testing new tactical and operational doctrine. The Soviet Union and the Warsaw Pact are planning for the use of an operational maneuver group (OMG) to fight at the tactical and operational levels and to win at the strategic level of war.

The operational maneuver group (OMG) appears to be an idea whose time has finally come for Soviet military planners and Western defense analysts alike. Hardly a defense journal article or book on contemporary European military affairs appears (at least this side of the Warsaw Pact) which does not somewhere refer to this latest product of Soviet military thought.

While the OMG is frequently described in terms of what it is or missions it is intended to accomplish, there is less effort to assess why the Soviets have developed the concept and just where it would fit into a theater/strategic war plan.

Before trying to answer why, let us briefly review what and how. The discussion will center on the North Atlantic Treaty Organization's (NATO's) Central Region since this is most likely where the US Army would encounter OMG operations.

An OMG is a highly mobile, combined arms formation intended to operate ahead of the main body of Warsaw Pact frontal forces. It would be committed, through a gap created in enemy defenses by first echelon forces to conduct a "deep operation" in the enemy rear. Once through and into the rear, the OMG would seek to move rapidly toward a specific objective located up to 300 kilometers deep. Every effort would be made to avoid combat unless odds were favorable or there were no alternate routes around enemy concentrations.

Objectives could include an important bridge or other river-crossing site, transportation networks, airfields, command and control (C2) centers, or a key terrain feature. Seizure of these types of objectives, combined with the presence of the OMG in his rear, would disrupt an opponent's C2, hinder the resupply and maneuver potential of front-line defenders,

This chapter is a reprint of Maj. Henry S. Shields, "Why the OMG?" *Military Review* 65, no. 11 (November 1985): 4-13.

complicate repositioning of reserve forces, create panic and confusion among military authorities and civilians, and cause a sense of hopelessness. Objectives would be assigned at a distance appropriate to campaign requirements, OMG size and capabilities, as well as enemy capabilities and terrain.

OMGs could be formed at front or army level. At front level, the OMG formation would likely consist of an army or other multi-division formation augmented with front-level artillery, engineer, air defense, air assault, and helicopter assets. An OMG at army level probably would consist of a maneuver division possibly augmented by army assets. Assistance could be expected from front and army air assault forces, as well as transport and attack helicopters, to assist in seizing key obstacles in advance of the OMG. A front-level OMG also could be coordinated with a Soviet airborne assault in seizing a distant objective.

Although an OMG operates in advance of and separate from its parent front or army, it is still an asset of that formation. That is, its success will expedite the advance of the parent formation despite separation of up to 300 kilometers. Consequently, a front or army commander would probably not regard an OMG drawn from his available forces as a loss in overall combat power.

An OMG must be regarded as expendable as long as it contributes to attaining ultimate front or theater objectives. Since the Soviets probably would employ multiple OMGs of varying size simultaneously against NATO's Central Region, they likely anticipate that some

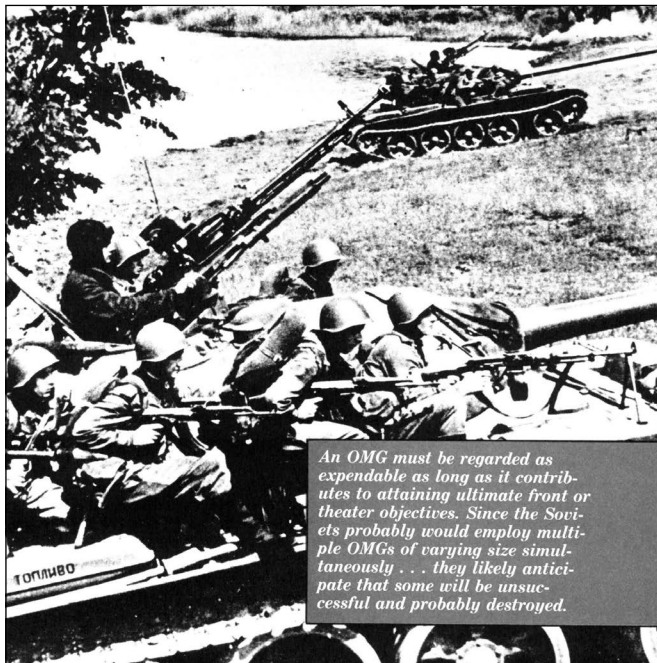


Figure 4.1. Role of an OMG.

will be unsuccessful and probably destroyed. However, these could still succeed in destroying forces the enemy cannot afford to lose or in forcing the commitment of reserves needed elsewhere, thereby making the task easier for follow-on main frontal or second-echelon forces.

Strengths and Weaknesses Affecting Deep Battle

Now we can look at the why, starting with a hypothetical Soviet assessment of their strengths and NATO's weaknesses. Areas they may consider strong points are:

- The mobility, protection, and firepower of tank and motorized rifle ground forces are constantly improving.

- Improvements in firepower and mobility include new helicopter and fixed-wing aircraft; gun, rocket, and missile systems; and mobile air defense guns and missiles.

- The large number of available forces are enough to form OMGs and still absorb combat losses.

- Air assault battalions and brigades are now generally available at army and front levels along with helicopter airlift. A half-dozen airborne divisions remain as national assets for employment against high-priority objectives.

The Soviets probably also see a number of exploitable NATO weaknesses:

- Many NATO forces, especially in the northern Federal Republic of Germany (GE), are garrisoned a significant distance from their wartime positions, requiring considerable warning and movement time to be fully effective.

- Full mobilization of NATO reserves and bringing combat unit up to full strength takes time. Again, the less warning, the greater the disadvantage for NATO.

- Large numbers of troops and aircraft, critical to NATO's early operations, must arrive from the United States. Smaller but just as important forces must come from the United Kingdom.

- NATO's current policy is one of forward defense, with the most capable combat units located as close to Warsaw Pact borders as possible. Rear area defense is by relatively weak home guard forces intended to counter sabotage or more lightly armed airborne/air assault forces rather than tank-heavy maneuver formations.

- The shallow depth of the GE/Benelux (Belgium, the Netherlands and Luxembourg) area (around 400 kilometers) limits the ability of NATO

commanders to trade “space for time,” and fall back to successive defense lines to preserve scarce resources from destruction or excessive attrition.

Renewed Soviet historical interest in the “deep battle” of Khalkhin Gol (1939) and World War II deep operations apparently reflect a re-emphasis of this concept to exploit potential Soviet strengths and perceived NATO shortcomings. Contemporary deep battle would involve forcing the decisive engagement of a future war on NATO quickly, not along the front line where forces are strongest but in the rear where the defenders are weakest. It would be accomplished by executing a series of penetration of NATO’s front line of defense by combining overwhelming force and firepower and by selecting comparatively weak points such as division, corps, army group or national force boundaries, or areas where defensive deployments are incomplete.

Once a breach had been created, an OMG would be committed toward a rear area objective. As the penetration developed, the parent front or army would commit reserves to exploit the opportunity and further isolate or destroy defenders. Within a few days, armies and possibly fronts of the second echelon would follow into NATO’s rear, eventually to link up with the various OMGs.

The cumulative effect of this would be the transfer of the decisive theater battle from the front line where NATO’s strength is concentrated to the less-well defended rear area. Prior to the re-emphasis on deep operations, victory was to be achieved by engaging and defeating these front-line forces, after which the occupation of enemy territory to the full depth of the theater would eventually follow. Now, front-line NATO defenders would be pinned in place by main frontal forces and essentially bypassed, with victory gained by an OMG-spearheaded deep battle in the NATO rear. If successfully executed, this process would compound NATO’s weaknesses and amplify Warsaw Pact strengths, making Western frontline defenders largely irrelevant to the key rear area battle.

The OMG does not win the war by itself. That is done by follow-on frontal forces or the second echelon. In Soviet terminology, the creation of a breach in the enemy lines by main frontal forces (possibly assisted by the OMG) is a tactical (up to 50 kilometers deep) success which is then translated into operational (50 to 300 kilometers deep) success by the OMG’s rapid movement into the enemy rear.

Ultimate strategic success, which the Soviets regard as the elimination of the opponent’s ability to continue armed resistance, would be achieved by second-echelon forces building on the operational success of multiple

OMG operations. Strategic success is obtained when vital industrial, economic, and populated areas of the enemy have been occupied and when military forces are destroyed, dispersed, or isolated so as to be incapable of reversing the situation.

This is deep battle—forcing the decision as far from the defender’s main strength as possible. And here we have the answer to “Why the OMG?” This formation, and concept, is currently regarded by the Soviets as the most expeditious way to quickly impose an operational-depth deep battle on the enemy and create the necessary conditions for strategic success by second-echelon and other follow-on forces.

Despite circumstances the Soviets may regard as favoring the use of deep battle concepts against NATO, its success is by no means assured. A Soviet commander also would have to consider numerous factors which potentially could prevent its successful execution:

- Will the OMG or other deep penetration formation be able to maintain an overland supply link with main frontal forces? If not, does it have adequate transportation to carry sufficient quantities of fuel, ammunition, and other supplies?

- In a related area, will the formation have sufficient, or be able to replenish, surface-to-air missiles and antiaircraft gun ammunition to allow effective defense against perhaps constant air attacks? The ongoing upgrading of NATO air forces with F15, F16, F18, A10, Tornado, Alpha Jet, and Mirage 2000 aircraft, as well as new attack helicopters, would make the air defense of an OMG of particular concern.

- Will an OMG be successful in avoiding significant contact with defenders? Unexpected opposition could create delays, inflict combat losses, and cause the expenditure of fuel and ammunition which cannot be easily replaced.

- One of the main defenses of a deep operations formation is its ability to keep moving and not present a concentrated, stationary target. Rapid mobility, however, assumes intact bridges and usable roads not obstructed by battle damage, refugees, or other traffic.

- Are Soviet C2 systems adequate to maintain contact between the deep operations formation and main frontal forces to ensure the proper coordination of actions? Can timely intelligence information be promptly passed back and forth?

- The Warsaw Pact has to mobilize and deploy its forces to establish wartime force structure also. NATO may have time to prepare for the attack.

- Given adequate preparation time and a French government decision to participate in a collective European defense, NATO may acquire strong reserves, including French forces, reinforcements from the United States and the United Kingdom, and a fully mobilized West German Territorial Army. These would reduce the chances for success of an OMG formation operating in the NATO rear.

- NATO forward forces may prevent the necessary breakthrough, negating the deep battle concept and keeping the decisive area of conflict along the main defensive line.

How do nuclear weapons apply to the OMG concept? As currently conceived, the OMG deep battle is designed to achieve strategic success so quickly by conventional means that nuclear weapons use by an opponent would be pointless.

Based on an appreciation that NATO nuclear release procedures are slow and cumbersome, OMGs would seek to penetrate deep into an opponent's rear to preclude the use of nuclear weapons without endangering the defenders' own civilian population and military forces in the area.

An OMG moving toward its objective would simultaneously place a high priority on locating and neutralizing enemy nuclear systems. This could take the form of detaching "raiding" elements to destroy systems not directly on the line of march or of passing targeting information to the parent command to allow attack by army or front missile or aviation assets.

If successful, the OMG could neutralize enemy nuclear assets directly, assist targeting by higher echelon attack resources and force the enemy to rapidly relocate systems in the OMG's path. At the same time, intermingling with civilians and rear area military forces makes enemy use of these weapons in-

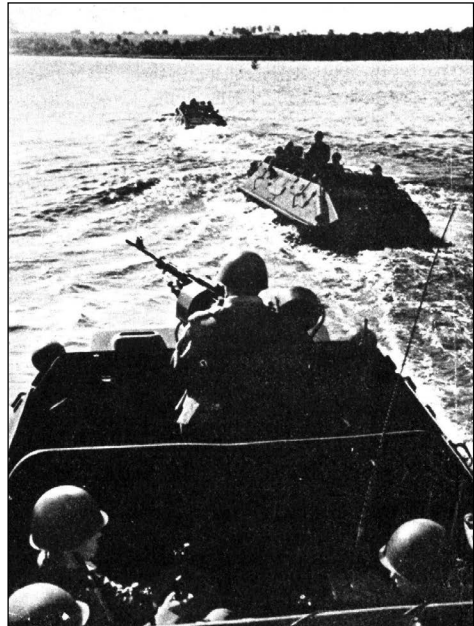


Figure 4.2. The OMG does not win the war by itself. That is done by follow-on forces or the second echelon.

creasingly unattractive. If nuclear weapons had already been employed by either side, they could again be used to create a breach for commitment of the OMG which would exploit nuclear-created confusion and destruction in the enemy rear.

Why do the Soviets apparently find the OMG and deep battle suddenly so attractive? This is partly a result of their assessment of each side's strengths and weaknesses, but it is also because of compatibility with their previous military experience. The Soviets maintain that their success in the last eighteen months of World War II was based on a series of offensive deep operations and sub-operations which in stages allowed the advance from the western Soviet Union, through Poland, to Berlin. The war was concluded by the most ambitious and far-ranging deep operation of all against the Japanese in Manchuria in 1945 (see Figure 4.3).

Each of these main or sub-operations sought to insert tank-heavy mobile forces through gaps created in German (or Japanese) defenses deep into the enemy rear to seize key objectives. The result was the isolation of large front-line groupings for destruction by follow-on forces and the subsequent advance of the main body and second echelon to exploit the penetration. The deep penetration forces were often termed mobile groups (*podvizhnii gruppi*) and are the conceptual predecessor of today's OMG.

Except for the Berlin operation of 1945, however, none of these offensive deep operations established the conditions for strategic success due to the great distance to the enemy strategic center. Only the Berlin operation was able to seize objectives of such overriding importance that it could bring about the strategic defeat and collapse of the enemy. Even the Manchurian operation, despite its great scale and depth, could not expect to achieve the decisive strategic effect of forcing Japan out of the war.

From a Soviet perspective, the NATO situation today may have the potential to allow the achievement of the required strategic success, with a single deep penetration/deep battle operation employing multiple fronts and OMGs. While the distance a Warsaw Pact offensive would have to cover to achieve the strategic defeat of NATO is several hundred kilometers more than that of the decisive Berlin operation, it could be achievable with multiple, successive OMG deep operations. The occupation of all or significant portions of the GE and the Benelux, and the isolation or destruction of NATO forces (including US) in these areas, would require an advance of approximately 400 to 500 kilometers.

By World War II standards, many Soviet officers probably see this as a problem that could be successfully managed through a proper combina-

tion of new combat capabilities with OMG concepts. This concept could be especially attractive to Soviet planners since it combines proven historical experience with the latest in military technology while simultaneously exploiting potential enemy weaknesses.

Operation	Dates	Depth of Advance (kilometers)	Forces Involved (in Fronts)
1944			
Byelorussian	23 Jun–29 Aug	Up to 350	4
Vitebsk Orsha	23–28 Jun	80–150	1+
Mogilev	23–28 Jun	50	1
Bobruisk	24–29 Jun	100–110	1
Polotsk	29 Jun–4 Jul	100–150	1
Shyaulya	5–31 Jul	300–350	1
Vilnius	5–20 Jul	210	1
Belostok	5–27 Jul	300	1
Lublin-Brest	18 Jul–2 Aug	260	1
Kaunas	28 Jul–28 Aug	260–280	1
Minsk	29 Jun–4 Jul	100–180	3+
Lvov-Sandomierz	13 Jul–29 Aug	275–295	1
Jassy-Kishinev	20–29 Aug	300	2+ Black Sea Fleet & Danube Flotilla
1945			
Vistula Oder	12 Jan–3 Feb	280–350	2+
East Prussian	13 Jan–25 Apr	200–250	2+
Berlin	16 Apr–8 May	160–220	3+
Manchurian	9 Aug–2 Sep	Up to 800	3+ Pacific Fleet & Amur Flotilla
Habin Gitinsk	9 Aug–2 Sep	200–300	1+ Pacific Fleet
Xingan-Mkden	9 Aug–2 Sep	400–800	1
Yuzhno-Sakalinsk	11–25 Aug	350	1+ Pacific Fleet
Sungari	9 Aug–2 Sep	550	1+ Amur Flotilla
Seishin	13–16 Aug	Seizure of coastal city	1 Army + Amur Flotilla
Kurtle Assault	18 Aug–1 Sep	Seizure of island chain	1+ Pacific Fleet

NOTE: The Byelorussian and Manchurian operations consisted of multiple suboperations.
Source: *Soviet Military Encyclopedia*, Voenizdat, Moscow USSR 1976–80, 8 Volumes.

Figure 4.3. Soviet Offensive Operations during the Last Years of World War II.

The US Army's AirLand Battle, in many ways, represents a potential counterbalance to Soviet deep battle. To be fully effective, however, both must be conducted as part of a theater-wide strategy where individual operations are carefully planned and initiated to contribute to overall success. If properly adapted, the AirLand Battle could prevent Warsaw Pact penetrations of the main defensive line, seize the initiative from the attacker, force enemy commanders to divert forces to defend their own rear area, and disrupt their ability to bring forward and commit OMGs or the second-echelon forces necessary to translate individual deep operations into theater-wide success.

While AirLand Battle's basic concept of "the best defense is a good offense" generally is valid, it must be applied carefully and tailored to a specific, often changing situation. The basic premise of Soviet deep battle is to force the decisive encounters away from an enemy's main strength—in this case, as far from the front-line area as possible. Since AirLand Battle implies offensive and active defensive actions by front-line defenders, there could be an employment of the most effective combat resources away from the rear where the Soviets are seeking to fight the decisive battle. Some Soviet commanders could even regard AirLand Battle as a potential weakness if it could be channeled to or contained in areas where any local successes would eventually be negated by a successful deep battle in the rear.

AirLand Battle can contribute to the defeat of Soviet deep battle if properly employed. Ideally, its active employment would not allow the commitment of the OMG formation by preventing the required breakthrough or by destroying any force that does penetrate before it could move out of NATO's main defense area. Assuming an OMG penetration, AirLand Battle still could be employed against enemy main body and second-echelon formations moving forward to exploit the breakthrough and develop it into strategic success. In either case, AirLand Battle will be effective only if enemy forces performing OMG deep battle functions are promptly and precisely identified. Further, available resources will then have to be concentrated against this threat rather than employed in locally effective, but ultimately meaningless, offensive actions.

NATO must carefully consider the requirement to counter Soviet deep battle concepts and associated OMGs while, at the same time, fighting a successful battle along NATO'S main defensive line and preventing the advance of second-echelon forces. The answer to "Why the OMG?" is simply deep battle. This is initiated across a broad front by multiple OMGs and then concluded by follow-on main body and second-echelon forces exploiting OMG successes, all ideally without the use of nuclear weapons

by either side. For the present, NATO planners should develop and implement any doctrine which offers an alternative to the Soviet OMG deep battle concepts and which prevents the successful implementation of the current Soviet “key to victory.”

About the Author (from the 1985 article)

Maj. Henry S. Shields, US Air Force Reserve, is a senior analyst in the Frontal Forces Branch, Soviet Warsaw Fact Division, Defense Intelligence Agency, Washington, DC. He received a BA from Franklin and Marshall College and an MA from Indiana University and is a graduate of the Air Force Command and Staff College. While on active duty, he served in a variety of intelligence positions in Southeast Asia and Europe. His article “Soviet Armed Helicopters” appeared in the February 1984 *Military Review*.

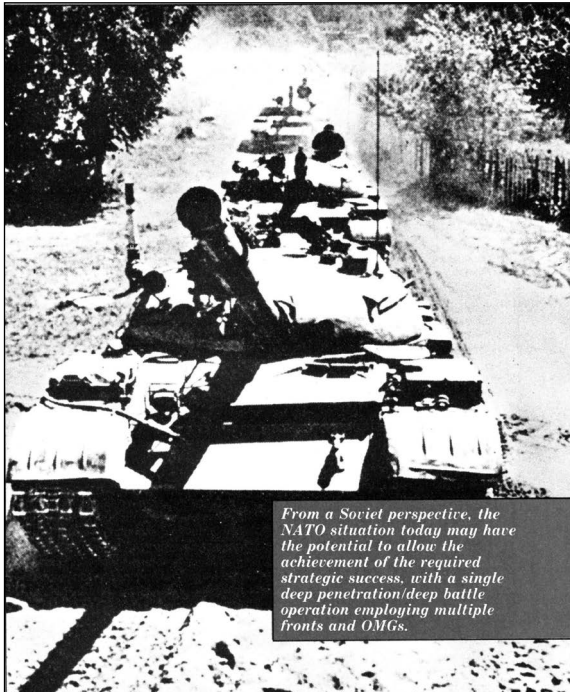


Figure 4.4. Future Role for OMGs.

Chapter 5

A Look at Soviet Deep Operations

Maj. Elvis E. Blumenstock, US Marine Corps

*Deep attacks are not uncoordinated, chance attacks on separate objectives of the defender, but coordinated actions of various types of armed forces according to a unified plan directed toward the solution of specific operational and strategic tasks within the limits of the theater of military operations.*¹

—Maj. Gen. Kh. M. Dzhelaukhov, USSR, 1966

The concept of deep operations is not a new or revolutionary one. World War II provides many well-known examples of maneuver warfare and deep operations. Guderian, Rommel, and Patton are among prominent commanders known for their penchant for deep battle. Some trace the theory of deep maneuver back to the use of strategic cavalry raids during the Civil War.² Others trace its origins to the pre-Napoleonic period to such commanders as Gustavus, Marlborough, Frederick, and Guibert.³

More recently, both US and Soviet warfighting doctrines have recognized the importance of deep operations. The Soviet study of operational art began with the Soviet Civil War (1918–20). One of the more important theories to evolve from this study concerned the theory of deep battle and deep operations. From this beginning, the Soviets continued to develop and refine their capability to conduct deep battle. The result was that by the late 1980s, the Soviets had a comprehensive doctrine for the conduct of deep operations that took advantage of every conceivable method to strike deep into enemy territory.

Soviet Deep Operations Theory

The Soviet Army has studied and developed the operational level of war since the early 1920s. Since then, a select group of intellectuals, focusing on an offensive style of maneuver warfare, has studied and written on the subject. From this study, many operational theories have evolved. Of these theories, one of the more significant is the theory of deep battle (a tactical measure) and deep operations (a more complex operational mea-

This chapter is adapted from Maj. Elvis E. Blumenstock, “A Look at Soviet Deep Operations: Is There an Amphibious Operational Maneuver Group in the Marine Corps’ Future?” (thesis, US Marine Corps Command and Staff College, Marine Corps University, Quantico, VA, 1994).

sure).⁴ The Soviet army successfully used these concepts in World War II to defeat the vast German war machine. From this auspicious beginning, the Soviet army has developed the concept of deep operations into a comprehensive doctrine for warfare in depth.

The Emergence of Deep Operations

In strict contrast to the positional warfare and crushing firepower of World War I, small forces fought the Russian Civil War over immense areas. Lack of troops forced commanders to mass forces and create shock groups in critical areas. These shock groups, often augmented with cavalry forces as “mobile groups,” were able to penetrate the shallow enemy defenses and exploit into the operational depth of the defenses. Offensive maneuvers, such as deep slashing attacks and envelopments, were effective.⁵ Maneuver became a requirement for victory, giving rise to a generation of officers experienced in maneuver warfare.

It was this generation of officers, most notably Marshal M. N. Tukhachevsky and Marshal V. K. Triandafillov, that most influenced the development of operational art in the Soviet Union.⁶ They are credited with laying the foundation of modern Soviet operational and tactical doctrine.⁷ It is only natural that they would draw upon their experience from the Civil War to anticipate the problems of future warfare.

Tukhachevsky, drawing upon his experiences as a commander on the Vistula in 1920, and S. S. Kamenev, commander of the Red Army from 1919 to 1924, rejected the concept of a single, climactic battle of annihilation. Instead, they stressed the importance of conducting successive operations. This focused the efforts of military theorists on the range of activities between strategy and tactics—the area that has since become operational art.⁸

Tukhachevsky continued to refine his concept of successive operations. By 1926, he wrote:

Modern operations involve the concentration of forces necessary to strike a blow, and the infliction of continual and uninterrupted blows of these forces against the enemy throughout an extremely deep area. . . . Battle in a modern operation stretches out into a series of battles not only along the front but also in depth until that time when either the enemy has been struck by a final annihilating blow or when the offensive forces are exhausted.⁹

From 1928 to 1929, Tukhachevsky and Triandafillov continued to explore this idea. During this time, Tukhachevsky introduced the concept of

simultaneity. He argued that a mass army was needed to contact the enemy over a broad front to pin him down. Then, at the decisive point and time, the front commander could launch the reserve, or “shock army,” to fight into the enemy’s rear. Tukhachevsky also began to think deeper, because tanks and aircraft provided the means to go deep.¹⁰

Triandafillov developed the theory of successive operations a step further by exploring methods to penetrate the enemy’s defenses and extending the battle using a mechanized, alarms force, the “shock army,” including aviation. The 1929 Field Regulation (*Ustav*) formalized this concept as deep battle, a tactical measure to gain success in penetrating the enemy tactical defenses by the simultaneous use of tanks, infantry, artillery, and aviation.¹¹ The concept of deep operations took longer to crystallize. Early experimentation from 1931 to 1933 with deep battle, during a series of studies, map exercises, and war games, laid the theoretical foundation of deep operations theory. In February 1933, the Red Army officially sanctioned deep battle.¹²

The Field Regulation of 1936, authored by Tukhachevsky, defined the principles and practice of deep battle and outlined the theoretical principles of deep operations. The 1936 *Ustav* defined deep operations as:

Simultaneous assault on enemy defenses by aviation and artillery to the depths of the defense, penetration of the tactical zone of the defense by attacking units with widespread use of tank forces, and violent development of tactical success into operational success with the aim of the complete encirclement and destruction of the enemy.¹³

According to Tukhachevsky, deep operations objectives included operational reserves, army headquarters, major communication sites, airfields, long-range artillery, and major logistics sites.¹⁴

The Soviet concept expected both fronts and armies to conduct deep operations.¹⁵ It expected a front to attack to depths of 150–250 kilometers and an army to attack to depths of 70 to 100 kilometers.¹⁶ Operational formations consisted of an attack echelon, an exploitation echelon (mobile group), reserves, aviation, and airborne forces. By 1936, the Soviets had created new mobile units to spearhead deep operations and fielded airborne units to cooperate with exploitation forces. Mobile groups of tank, mechanized, and cavalry corps composed these exploitation forces. The concept also placed a strong emphasis on air defense by aviation and air defense artillery.

Development of deep operation theory continued after its genesis in 1931 to 1933. Initially, the development concentrated on the study of different variations of when and how to commit the exploitation echelon. Normally, the Soviets committed the exploitation echelon once they had penetrated the tactical defenses, on or about D+1. Secondly, the mobile group's objective was the enemy operational reserves. Working in coordination with aviation and airborne forces, the mobile group would attack out to 100 kilometers, sponsoring raids against enemy installations and conducting blocking attacks. Being a strong proponent of surprise, Tukhachevsky also studied ways to conceal the movement of the first echelon into attack positions, hence, gaining a critical initial advantage.¹⁷

The Soviets tested the principles of deep operations in large-scale exercises in 1935 and 1936 and in battle from 1938 to 1940. The Soviets felt that these exercises validated the theory although some elements required refinement.¹⁸ However, deep operations differed from deep battle by requiring aviation, airborne, and mechanized forces to work together and operate independently of the main force. The requirement to reach the operational depth meant a penetration of fifty to sixty kilometers.¹⁹ The Soviets did not have the technology or experience to achieve this until the latter stages of World War II.

By 1936, the Soviet Army fully recognized deep battle and had defined the concept of deep operations. Chief of Army Staff Tukhachevsky applied these theories and by 1936 had created four mechanized corps capable of conducting deep battle. Unfortunately, Stalin reversed the trend of operational thinking and army modernization during the Great Purge of 1937 to 1938.

The effect of Stalin's purge of the military was immense:

“Events in the spring of 1937 . . . shook the Red Army to its foundations . . . the army was . . . decapitated.” Those who had originated the theory of deep operations “were declared enemies of the people,” and the theory itself was “disavowed” and eliminated from all the forms of instruction.²⁰

Stalin's purge killed Tukhachevsky and disgraced, arrested, jailed, or executed his followers. The Soviet Army destroyed Tukhachevsky's work on force structure and disbanded the four mechanized corps before the beginning of World War II. Attritional thinking prevailed over maneuver in the Red Army.

However, the concept of deep operations did not die. Work on deep operations theory continued at the General Staff Academy and other senior

officer academies. Although it only existed in draft form, the 1939 Field Regulation included the work on deep operations theory. The 1939 *Ustav* also included a new chapter on the principles of the offensive. The General Staff updated the draft 1939 *Ustav* in 1941, and it became the final prewar set of regulations.²¹

The Great Patriotic War

As war spread across Europe, the high price of Stalin's purge became apparent. The rapid defeat of Poland in 1939 and the collapse of the French in 1940 shocked the Soviet leadership. The Soviets apparently realized that the Germans were proving the success of Tukhachevsky's theories and vainly tried to rebuild a large mechanized force.²² However, the Soviets were only partially prepared for the German attack in June 1941. The ineptness of all but a few in the ranks of the post-purge senior commanders compounded this lack of preparation. In battle after battle, the German army maximized surprise and quickly overwhelmed Soviet defenses. The Soviets' attempts to go on the offensive were uncoordinated and quickly defeated.

Stalin's attempts to command the war effort through three fronts failed. On 23 June 1941, Stalin created the STAVKA of the Supreme High Command to provide uninterrupted command and control of the War.²³ STAVKA played a pivotal role in the eventual rehabilitation of Tukhachevsky's ideas and laid the foundation for Soviet victory. The Soviet chain of command was very complicated. However, STAVKA had a direct link to the field forces down to the army and corps level. STAVKA instructed the front commanders on the aims of each operation, allocated resources, directed missions, and ensured coordinated efforts of fronts and higher. With disaster looming, STAVKA quickly took action. It replaced inept commanders, focused the reeducation of military commanders on Tukhachevsky's theories of the 1930s, and started a laborious effort to reorganize the army to support these concepts.

The first step in reverting to Tukhachevsky's deep operations theory was the STAVKA directive of 10 January 1942. The directive ordered front and army commanders to stop spreading their divisions across the entire frontage when launching a counteroffensive. Instead, they were to form "shock groups" operating on main thrust lines. The directive also formed two tank armies in June 1942 to function as a shock group. Next, the Resolution of 16 March 1942 ordered the formation of STAVKA reserves.²⁴

STAVKA Orders No. 306 and 325 quickly followed these moves in October 1942. STAVKA Order No. 306 required commanders to use sin-

gle echelon formations when attacking German defenses. Order No. 325 directed all tank and mechanized corps be employed in the exploitation echelons of tank and all-arms armies and committed early to rapidly develop the offensive.²⁵

The Soviets experienced many problems turning Tukhachevsky's style of aggressive maneuver into reality. Only a few key officers understood the concept of deep battle. However, the offensive operations conducted in 1941 and 1942 provided the experience upon which to base improvements in techniques and equipment. Through trial and error, commanders and staffs became proficient in offensive maneuver. This experience provided the basic techniques that were refined in 1943 and perfected in 1944 and 1945.

The first mobile groups capable of extended deep penetration of German defenses appeared at the Battle of Kursk in 1943.²⁶ Early Soviet experimentation with small tank brigades, working with cavalry and airborne units, to spearhead pursuits led STAVKA to mandate "shock groups." By early 1943, the Soviet Army fielded the first shock groups, tank and mechanized corps, for use at the army level. The Soviets intended to use these corps as "mobile groups" for exploitation to depths of 50 kilometers. They structured the first front level mobile groups (tank armies) as Tukhachevsky had envisioned. These mobile groups were instrumental in the breakout at Kursk.

The offensive operations of 1943 produced the template, published in the 1944 Field Regulation, for the successful offensives of 1944 and 1945. This regulation did not specifically discuss deep operations, apparently because Tukhachevsky's theory was still disavowed. However, the central theme of the 1944 *Ustav* was the exploitation of penetrations by mobile groups into the operational depth of the enemy. Finally, the Soviets achieved the full intention of the 1936 *Ustav*.

The general pattern for the conduct of deep operations changed little after 1943. Offensive operations depended on maneuver. Each front had a mobile group of one to three tank armies; each army had a mobile group of one to two tank or mechanized corps. Fronts routinely attacked to depths of 150 to 300 kilometers, armies to depths of 100 to 150 kilometers. Operational pursuit was important and occurred both day and night at high tempo. Typically, first echelon forces penetrated the tactical defenses. The mobile group then attacked into the enemy rear to "perform the mission of creating conditions for developing tactical success into operational, and sometimes into operational-strategic."²⁷

Mobile groups were not simply second echelon forces. Mobile groups had specific missions that included the following: 1) defeating enemy operational reserves (one of the main missions), 2) encircling enemy forces, 3) fixing enemy reserves in place, 4) occupying important objectives for follow-on forces, 5) pursuing a retreating enemy, 6) disrupting command and control, and 7) disorganizing the enemy rear.²⁸

Another important difference between mobile groups and second echelon forces was that commanders committed mobile groups early in the operation, normally between D+2 and D+5. Mobile groups normally attacked through penetrations, gaps, or open flanks and, once through the enemy's tactical defenses, often achieved average daily rates of advance ranging from 40 to 100 kilometers.²⁹

There are several examples of Soviet campaigns using deep operations, the most notable being the Belorussian (June 1944), Vistula-Oder (January 1945), and Manchurian (August 1945). The Soviets concluded that these operations were successful because of swift, decisive, and continuous day and night operations.³⁰ These studies form the basis of the Soviet concept of deep operations during the 1980s.

Soviet Far East Campaign, Manchuria, August 1945

During the last hours of 8 August 1945, the Soviet Foreign Minister presented the Japanese Ambassador in Moscow a formal declaration of war. Shortly after midnight, Soviet troops launched a massive, combined-arms, joint and combined offensive against Japanese forces in Manchuria. Thus began the last large-scale campaign of World War II. Despite being one of the least-known campaigns of the War in the West, it has been immensely important to the Soviets.

After the Kursk offensive during the summer of 1943, Soviet operational techniques matured. In late 1943, 1944, and 1945, operations became large, combined-arms events characterized by maneuver deep into the German rear. The Soviets had achieved Tukhachevsky's vision; deep operations on an operational level had become a reality. David Glantz notes:

In Manchuria, the theories developed in Europe would be put to the test in a region whose geographical features would challenge the most capable planner, and under time constraints that would call for the greatest application of imagination and initiative.³¹

The Manchurian Campaign demonstrated the aggressive use of maneuver and deep operations on a massive scale. Accordingly, it has had great implications for the post-war era of Soviet military art. From an op-

erational perspective, the complexity, size, speed, depth, and remarkable success of this campaign make it well worthy of study. For the student of deep operations, it represents the state-of-the-art deep operations of World War II and provides many useful lessons that the student can apply today.

Setting

By 1945, the war in Europe had almost reached its climax, and the stranglehold on Japan had tightened. As the prospect of victory over Germany became certain, Churchill and Truman pressed Stalin to open another front against Japan. Encouraged by the Allied appeals, and wishing to secure the Soviet position in the Far East, Stalin directed that planning begin on an operation to seize Manchuria from Japan. By March, planning for a campaign in Manchuria was in full progress.³²

Because of its mineral wealth, the Japanese considered possession of Manchuria to be critical to the survival of the Empire. By 1941, the Japanese had built up an army (the Kwantung Army) of over one million men in Manchuria. Intelligence estimated this Army to be the most powerful army in the Japanese Empire. The Pacific War, however, had eroded Japanese forces in Manchuria in both strength and quality, as the Japanese had removed assets there for other theaters. On the eve of the Soviet attack into Manchuria, Japanese strength in Manchuria was approximately 1.2 million men.³³

Soviet Situation. The Soviet General Staff correctly determined and achieved a strategic design fitting Joseph Stalin's concept of war against Japan. Stalin had assigned the highest priority to the campaign's rapid completion. Because war with Japan was very unpopular with the Russian people, Stalin wanted to avoid the political risks of a war of attrition. Therefore, any campaign against the Japanese had to be designed to force a quick and unconditional surrender. Also, Stalin wanted to achieve political and territorial gains, specifically to capture Manchuria, Korea (to the 38th parallel), Southern Sakhalin Island, and the Kurile Islands.³⁴

To achieve these objectives, the Soviet General Staff considered four strategic options. The Staff rejected one option, the invasion of the Japanese homelands, because they expected it to be very difficult and costly. Another possibility was to strike the Japanese forces in northern China. The Staff also rejected this because of the dispersion of Japanese forces and the limited and difficult approach routes. They also rejected a third alternative, the seizure of Sakhalin Island and the Kurile Islands, because it might not achieve real victory. However, they included the seizure of these islands as part of the final plan.³⁵

The General Staff believed a final option, striking Japanese forces in Manchuria, to be the only alternative that could achieve Stalin's goal of rapid completion. They considered the Japanese forces in Manchuria to be the center of gravity of Japan. Soviet military planners reasoned that the destruction of these forces would deny the Japanese homeland of their greatest strength and would quickly cause the unconditional surrender of Japan.³⁶

Soviet military planners concluded that the strategy to defeat Japan in Manchuria had a two part objective. First, they had to isolate the Kwantung Army before Japan could evacuate or reinforce it, either from the Japanese homelands or northern China.³⁷ Second, they had to defeat and disarm all Japanese forces in Manchuria and Korea. The operational strategy chosen to achieve these objectives was one of encirclement. The central feature was one of deep operations.

One design of the operational plan was to achieve decisive operational strength throughout the theater. From May to July of 1945, the Soviets moved four armies, many specialized units, all their equipment, and a large amount of supporting material across the Asian continent.³⁸ Most of these forces went to the Transbaikal Front. This immense effort doubled the Soviet forces in the theater to over eighty divisions and over 1.5 million men. It also gave the Soviets the positional advantage before the campaign began.

Japanese Situation. In August 1945, Japanese forces in Manchuria numbered thirty-one infantry divisions, nine infantry brigades, two tank brigades, and one special purpose brigade. These forces consisted of three army groups, one separate combined army, one air army, and a naval flotilla. Added to this was the Manchukuo army of eight infantry and seven cavalry divisions. In total, Japanese forces numbered over 1.2 million men.³⁹

Despite this numerical strength, these units lacked quality. The Japanese had transferred many veteran soldiers and commanders to the Pacific theater before the summer of 1945. This had led the Japanese High Command to develop a defense in depth to delay Soviet forces until they could establish a final defensive position in a redoubt in the Tunghua area. The army groups received the final version of this plan in June 1945.⁴⁰

The plan called for one-third of the Japanese force to deploy along the borders. The Japanese deployed the remaining two-thirds in operational depth to create a series of defensive lines. The Japanese expected to use the terrain and long distances to attrit the Soviets. By the time the Japanese reached the redoubt, they expected the Soviets to be exhausted. This would allow the Japanese to check the Soviet advance and maybe even counterattack.

Any analysis of this plan should consider two important points. First, the Japanese had to redeploy and construct fortifications to carry out this plan. This did not start until midsummer of 1945. They had not completed either the redeployment or the construction of fortifications when the Soviet offensive began. Second, on 6 August 1945, the United States dropped the first atomic bomb on Hiroshima. The second atomic bomb exploded on Nagasaki on the first day of the offensive, 9 August 1945. Both events greatly affected the outcome of the battle.

The Plan

The campaign plan the General Staff designed to fulfill the operational strategy was simple, yet bold. The Transbaikal Front was to make the main attack, driving from Mongolia through Manchuria and preventing Japanese reinforcement from northern China. This attack would maneuver into the Japanese rear. The 1st Far Eastern Front was the primary supporting attack. It was to outflank the Japanese in the east, prevent reinforcement from Japan, and attack the major command and control centers and transportation nodes located at Harbin and Kirin. After these two Fronts had converged in the Mukden, Changchun, Harbin, and Kirin areas of south central Manchuria, they would advance together to crush the final Japanese resistance and capture Port Arthur, an important naval base in the south. The 2nd Far Eastern Front was to fix Japanese forces in the north. The Soviet Pacific Fleet was to conduct operations in Korea, the Kurile Islands, and Sakhalin Island and to prevent Japanese landings in the theater.

The Soviet planners then developed an operation plan based upon deception and surprise that depended on the Soviets' advantages of mobility, firepower, and combat skill. Although execution of the plan proved to be complicated, it was remarkably successful. Soviet planners believed it would take twenty to thirty days to defeat the Japanese. The Soviets actually overwhelmed the Kwantung Army in six days, and the Japanese surrendered on the tenth day.⁴¹ By the end of August 1945, the Soviet Army had occupied Manchuria, part of northern China, Sakhalin Island, the Kurile Islands, and the northern portion of Korea. The Soviets accomplished this amazing victory with relatively light casualties.⁴²

The Offensive

Ten minutes after midnight on 9 August 1945, the lead elements of Marshal Malinovsky's Transbaikal Front crossed the border and attacked into Manchuria. Malinovsky's operational plan included three separate attacks in three major axes focusing on Kalgan, Mukden, and Changchun. The 6th Guards Tank Army, acting as a mobile group, led the attack fol-

lowed by the 53rd Army. Meanwhile, two combined arms armies, the 17th and 39th, conducted the main attack of the Front toward Changchun. The 36th Army conducted a supporting attack to fix Japanese forces in place.

Moving rapidly, the 6th Guards Tank Army had reached the Greater Kingan Mountains by the second day and had crossed the mountain range by the end of the third day, a distance of over 350 kilometers.⁴³ The progress of the 6th Guards Tank Army continued to be spectacular. On 21 August, elements of the 6th Guards Tank Army reached both Changchun and Mukden, two days after Soviet airborne units landed at both locations. Meanwhile, the other attacking armies made greater progress than expected. The Transbaikal Front achieved its objectives well ahead of schedule. The 6th Guards Tank Army then received a subsequent mission of securing Port Arthur alone.⁴⁴

Simultaneously, Marshal Meretskov's 1st Far Eastern Front launched his attack. The trace of Meretskov's Front ran from the Ussuri River in the north to the Sea of Japan just east of Changchun and was heavily fortified. The Japanese had expected the main attack to come from the east and had created strong defensive positions along this front. The Soviets' tasks on this front were to penetrate the border regions quickly, bypass and isolate frontier fortifications, and drive deeply into eastern Manchuria. The goal was to preempt the establishment of a defense west of the border.

The 1st Far Eastern Front, advancing in violent thunderstorms at night, made slower progress than expected. However, by nightfall on 9 August, the 5th Army had torn a thirty-five kilometer hole in the Japanese defensive lines and had advanced sixteen kilometers into the Japanese rear area. On the night of 9 August, Marshal Meretskov reassessed the situation. The 25th Army area promised the best chance for successful exploitation in the Front's zone. He reinforced the 25th Army with two additional corps and indicated that he would commit the Front mobile group, the 10th Mechanized Corps, into that zone.

By noon of 12 August, the 17th and 30th Rifle Corps of the 25th Army had achieved a breakthrough. Marshal Meretskov then ordered the 10th Mechanized Corps to exploit through the 25th Army zone to Wangching and beyond. With the other forces of the 1st Far Eastern Front fighting heavy resistance from the Japanese, the 25th continued to exploit their attack. Japanese forces in the Tumen-Yenchi area faced envelopment by the 25th Army by the night of 17 August. Meanwhile, the 10th Mechanized Corps moved sixty kilometers from Taipingling Pass and secured the critical rail and road junction at Tahsingkou. The 25th Army consolidated its hold on northeastern Korea on 18 August while the remainder of the Front

made progress elsewhere. Also on 18 August, Meretskov sent the 10th Mechanized Corps westward to its objectives at Tunhua and Kirin and to capture key rail junctions along the way. Having arrived at Tunhua on the evening of 19 August, the 10th Mechanized Corps and units of the 88th Rifle Corps moved south into Korea. They reached the 38th parallel by the end of August.

General Purkayev's 2nd Far Eastern Front experienced the most bitter fighting in Manchuria. The 15th Army conducted the main attack in the center. This Army had to cross a swollen river, overcome fortified positions at Hsingshanchen and Fuchin, and advance to Chiamussu, Sansing, and Harbin to join up with elements of the 1st Far Eastern Front. The 2nd Red Banner Army conducted a supporting attack west of the 15th Army through the fortified regions at Aihun and Sunwo and advanced to Harbin. In the east, the 5th Separate Rifle Corps attacked the Jaoho fortification and continued to Paoching and Poli, uniting there with the 1st Far Eastern Front's 35th Army. General Purkayev's 16th Army conducted operations on Sakhalin Island.

The attacks by the 1st and 2nd Far Eastern Fronts worked well with the audacious maneuver of the Transbaikal Front. These attacks forced the Japanese to focus their attention to the north and east. This allowed the Transbaikal Front to maneuver deep into the Japanese rear, causing massive chaos and disorganization in the Japanese defense and preventing the Japanese Imperial Command from consolidating their forces.

The rapid Soviet victory should not be denigrated. The argument that the Japanese defeat reflected the low quality of troops and poor morale of the Japanese forces is unfounded. Those Japanese units engaged in battle fought fiercely.⁴⁵ Rather, the degree of surprise and the synergistic effect of the deep operations which the Soviets achieved accelerated the Japanese defeat.

Analysis of the Offensive

Soviet forces operated on a front of over 4,400 kilometers and to depths of 950 kilometers.⁴⁶ Every type of terrain imaginable—deserts, mountains, swamps, lakes, and rivers—had to be traversed, many by the same unit. Soviet accounts depict this campaign as a commander's nightmare.⁴⁷ Despite the many difficult or seemingly impossible problems that had to be surmounted, the command and control system established by the Soviet General Staff ensured a successful campaign.

The scope of such a large operation was too great for the coordinating staff initially responsible for the Far East theater. The standard process

of assigning a Supreme High Command, or STAVKA, representative to oversee the operation also proved inadequate. STAVKA overcame this difficulty by creating a unified command similar in principle to our geographic combatant commands. On 30 July 1945, the Soviets established the Far East High Command with Marshal A. M. Vasilevsky as the commander-in-chief (CinC). Marshal Vasilevsky assumed responsibility for all land, sea, and air operations in the theater. Under his command, the CinC had three front or army group commanders who had the typical command structure of armies, corps, divisions, and brigades. The CinC also assigned a separate commander of the Pacific Fleet as coequal to the front commanders. To provide the personnel and experience for these new commands, STAVKA shifted experienced headquarters staffs from Europe. The chief marshal of the Soviet Air Forces, the commander-in-chief of the Soviet Navy, and the deputy rear chief (the theater logistics commander) were key members of the CinC's staff.

Marshal Vasilevsky further realized that the scale and speed of the operation would be too difficult for the standard Soviet practice of centralized command and control to be effective. The amount of frontage and terrain forced division and larger units to operate independently. To ensure full control and guarantee continued action, Marshal Vasilevsky increased the authority of all levels of command. He required that command posts stay close to the advancing units. Also, precise orders that clearly stated the commander's intent received special importance.⁴⁸ These measures were essential to allow unit commanders to use the initiative necessary to ensure success.

The war against Germany produced many experienced and competent commanders at all levels. STAVKA ensured that the Soviets selected the best of these leaders to organize and command Soviet forces. The stunning result of the Manchurian Campaign attests to the Soviet commanders' audacious leadership. One analysis of the operation describes Soviet military leaders as taking great risks, planning bold operations, and executing their plans with abandon.⁴⁹ Many commanders in this campaign would later rise to high positions in the Soviet military. Marshal Vasilevsky had been the Chief of General Staff and a member of STAVKA before the campaign and became the first Defense Minister of the Armed Forces. Marshal Malinovsky, the commander of the main attack, became the Defense Minister in 1957.

In preparation for this campaign, the Soviets conducted an immense operational movement of men and equipment from Europe to the Manchurian Theater, a distance of over ten thousand kilometers. In total, they

moved almost 750,000 men and 136,000 carloads of equipment over a single line of communication, the Trans-Siberian Railway, requiring twenty-two to thirty trains a day during this period.⁵⁰ Most of these forces went to the Transbaikal Front, necessitating a motorized march, from the railway to the assembly area in Mongolia, of up to 750 miles, mainly over desert. The infantry units had to march the last 150 to 300 miles in temperatures of 112 degrees Fahrenheit.⁵¹ Furthermore, they relocated over thirty divisions within the theater.⁵² This immense effort doubled the Soviet forces in the theater and gave them a positional advantage.

Another important aspect of this movement was that the Soviets selected the units transferred from Europe based on strength and specialized experience or capabilities. This allowed the Soviets to ensure they had decisive force at the appropriate location. For example, they selected the 6th Guards Tank Army to be the focus of effort in the main attack (the Transbaikal Front). The plan required that this army attack through the Grand Khingan Mountains of western Manchuria. Having just fought their way through the Carpathian Mountains in Europe, the 6th Guards Tank Army had successfully proven their proficiency in mountainous terrain.

This large operational movement is even more remarkable because the Soviets designed their plan to be a strategic surprise. To achieve strategic surprise, they conducted a very systematic and huge deception effort that made use of both military and diplomatic means. They succeeded in masking their intent, as well as the time, direction, and strength of the attack. Stalin was able to convince the Japanese that he was prepared to negotiate terms for an end to the war.⁵³ The Soviets established routine defensive activity well before the attack and used false movements and simulated concentration of forces to deceive the Japanese of their expected place of attack. The Japanese thought the Soviet plan to attack over large stretches of desert and impenetrable mountains in the monsoon season to be impossible.

Operations security (OPSEC) was an essential part of the Soviet deception effort. As a consequence, they restricted planning to only the senior commanders at each level of command; only four people had knowledge of the entire plan for any given unit. The Soviets also initiated extensive security measures to cover the movement of units and key commanders into the theater. The CinC strictly limited reconnaissance efforts and forward deployments before the attack. Restricting deployment along the front to night movement and locating assembly areas twenty to eighty kilometers to the rear of the border were an essential part of the OPSEC plan.⁵⁴

The Soviet deception efforts resulted in strategic, operational, and tactical surprise. The Japanese believed the Soviets could not conduct major operations until after September 1945. The Soviet attack caught Japanese forces regrouping to new defensive positions, totally unprepared for the Soviet offensive.

The use of maneuver by the Soviets enhanced the surprise their deception caused. Over 41 percent of the Soviet forces conducted the main attack along the Transbaikal Front, which faced the weakest Japanese forces.⁵⁵ Designed to envelop the entire Kwantung Army, the Soviets desired this Front to maneuver into the Japanese rear, attack key command centers and transportation nodes, and prevent reinforcement from northern China. Retreating Japanese units found themselves facing the Soviet main attack. The Soviets designed the main supporting attack, the 1st Far Eastern Front, to envelop Japanese forces from the East and to attack key command centers and transportation nodes.

All levels down to divisions relied on maneuver, particularly in the Transbaikal Front. Powerful, fast-moving, combined-arms advanced detachments outflanked Japanese defensive positions and operated deep in the Japanese rear seeking command and control sites. They bypassed, isolated, and later reduced Japanese strongpoints. This enabled the main fighting forces to continue to move and not get bogged down into set-piece battles. Soviet units achieved rapid momentum, which made Japanese efforts to move into defensive positions futile.

The Soviets used both mobile groups and desants [parachute assaults] to great effect in this campaign.⁵⁶ The two front mobile groups, the 6th Guards Tank Army and the 10th Mechanized Corps, overcame seemingly overwhelming odds. The mobile group offensives reached depths of 600 to 800 kilometers during this campaign, averaging daily rates of advance close to ninety kilometers per day.⁵⁷ Assisted by airborne assaults at Changchun, Mukden, Shenyang, and Port Arthur, these mobile groups raced ahead to attack key C3 [communications, command, and control] sites and transportation centers. Also, on 18 August, Marshal Vasilevsky ordered all Soviet units in Manchuria, on all fronts, to secure major population centers with mobile units (groups) created from each major formation. Small amphibious operations also secured port facilities.

Logistics support proved to be the most serious problem of the campaign. Soviet memoirs depict acute shortages of fuel, water, and food.⁵⁸ Challenged by terrain, weather, speed, and distance, Soviet planners had expected logistics to be a problem and had taken comprehensive mea-

asures accordingly. Planners had established a theater rear area commander charged with logistics support under Colonel-General Vinogradov, who was given wide latitude and considerable authority. This proved to be vital to the success of the campaign. Soviet logisticians developed the theater resource and production base and stockpiled large amounts of supplies. Also, they formed special units to supply key units. However, even these efforts often proved inadequate.

The Transbaikal Front experienced the largest and most critical logistics problems. Since there were not enough water sources in the desert to support the Front, a large engineer effort, which drilled over six hundred new wells from 10 June to 8 August, developed water sources along the route of march. However, there were no wells in the first 125 miles of enemy territory, and forces used every available container to carry water, to include filling rubber boats. Additionally, they had to carry all fuel, parts, and construction materials over long distances. Every tank and self-propelled chassis carried logs, brought from Siberia, and construction material.⁵⁹

Logistics planners misjudged the amount of transport needed to support the Front. A lack of fuel stalled the 6th Guards Tank Army, the focus of main effort, for two days because they had to be supplied over a roadless desert, a mountain range, and a rainy plain. The Soviets diverted air transports and bombers from other missions to supply the Army with enough fuel to allow the attack to continue.

Logistics was a major concern during the Soviet campaign. Japanese forces were aware that a lack of fuel had stranded many Soviet units, such as the 6th Guards Tank Army. However, the Japanese were unable to counterattack because of the effectiveness of the Soviet attack throughout the theater. Generally, the Soviet logistics effort was a success. This is due in large part to the innovation of the rear area command, the immense build-up of supplies, and the short duration of the campaign.

Intelligence was another area of concern. The Soviet General Staff had little information on Japanese forces in Manchuria. The information that was available was unreliable, and the available maps were inaccurate. Again, it was the Transbaikal Front which suffered most from the critical lack of intelligence. The designed intent to surprise the Japanese limited intelligence operations, both covert and overt. This intent also limited aerial reconnaissance to the border. This lack of information caused the General Staff to overestimate the strength and number of Japanese forces.

This overestimation worked in the Soviets' favor; the overwhelming force committed along all fronts helped ensure rapid victory.

Once the attack started, there was a large effort to gain intelligence on Japanese forces. The Soviets devoted over 30 percent of all air sorties initially to aerial reconnaissance from 30 to 625 miles beyond advancing forces.⁶⁰ Also, each corps had a reinforced motorcycle battalion to perform reconnaissance out to fifty miles in front of the main forces.⁶¹

The Soviets used operational fires, primarily aerial bombardment, very effectively. However, they used naval forces to good effect on the Manchurian coastline and in the Sea of Japan. As with aerial reconnaissance, the desire to surprise the Japanese meant that they could make no aerial or naval attacks before the start of ground operations. The primary mission of the Air Force initially was to concentrate on command centers, transportation nodes, supply depots, and fixed fortifications.⁶² Destroying command centers and isolating the battlefield received priority. The use of air assets to interdict rail movements proved to be especially important to the Transbaikal Front. The bombardment of rail lines of communication prevented Japanese efforts to regroup, reinforce, and counterattack.⁶³ However, the Soviets experienced problems forward basing the Transbaikal Front aircraft that could have been decisive against a more capable enemy.

As noted in the discussion of deception and operational security, the Soviet General Staff went to great effort to protect their forces. A few significant examples include the following: 1) National and theater air defense forces, air units, and tank units guarded transports, lines of communication, and airfields during the buildup. 2) Defensive operations had been planned in case of attack. 3) Each front had its own air defense force consisting of three fighter divisions, several anti-aircraft artillery corps and regiments, and armored trains equipped with anti-air artillery.⁶⁴ Also, armies, corps, and divisions had their own air defense forces. 4) Once ground operations began, the Air Force quickly gained air supremacy and supported ground and naval forces extensively. 5) All Soviet forces were inoculated against plague and other diseases because of the widespread diseases in Manchuria and northern China.

Synchronization was a critical aspect of this campaign. A few important examples are as follows:

- 1) The main feature of this campaign is the employment of integrated combined-arms. Ground, sea, and air forces were mutually supporting. Requirements determined specific force adjustments.

The net effect was an integrated, responsive, all-purpose military. This close coordination helped ensure success.

2) Soviet forces attacked on every possible axis simultaneously on all fronts. They synchronized these movements with aerial reconnaissance, deep interdiction strikes, and airborne assaults and amphibious landings on key objectives in the enemy center, rear, and flanks. This pinned down Japanese forces along the entire length of the front. Japanese commanders were unable to determine which effort was the main attack. The use of high speed advances and maneuver to bypass and isolate Japanese defenses left Japanese commanders confused and off-balance. Moreover, Japanese commanders were unable to regroup, retaliate, or counterattack effectively because of the physical separation.

Despite the general success of the campaign, the Soviets experienced several problems. A major source of problems was the Soviet commander's decision to attack over seemingly impassible terrain on many axes. Not all units could overcome the terrain obstacles. Some units failed completely while others became spread out or overextended. Occasionally, Soviet commanders were able to redirect other assets, as with the 6th Guards Tank Army, and ensure success. But in most cases, Japanese forces were unable to react and take advantage of the situation. The combined, synchronized effect of the Soviet effort denied the Japanese commanders the ability to take decisive action.

Conclusion

The Manchurian Campaign remains a subject of intensive study by Soviet military professionals. They view this campaign as the successful application of Tukhachevsky's deep operations theory. In particular, the success of the 6th Guards Tank Army, the primary operational level mobile group, has been promoted as a useful example for training commanders and staffs today. The 6th Guards Tank Army is clearly the predecessor of the operational maneuver group of the 1980s.

Much of modern Soviet military art can be attributed to this campaign. Soviet military leaders have characterized the Manchurian Campaign as an instructive model for modern offensive operations. It is considered the main precedent for strategically decisive, offensive operations.⁶⁵ It is a campaign worthy of study by American military professionals as well.

Notes

1. Maj. Gen. Kh. Dzhelaukhov, “The Infliction of Deep Strikes,” in *Selected Readings From Military Thought 1963–1973, Studies in Communist Affairs*, vol. 5, Parts I and II, comp. Joseph K. Douglass Jr. and Amoretta Hoeber (Washington, DC: US Government Printing Office, 1982), 109.

2. James G. Snodgrass, *Operational Maneuver-From the American Civil War to the OMG: What Are Its Origins and Will It Work Today?* (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College, 1988).

3. Glen L. Scott, *Considerations for Deep Maneuver: Lessons from North Africa. 1941–1942* (Fort Leavenworth, KS: US Army Command and General Staff College, 1985), 13–15.

4. The Soviets used two concepts to define their doctrine—deep battle and deep operations. Deep battle is a tactical measure to gain success in penetrating the enemy tactical defenses by the simultaneous use of tanks, infantry, artillery, and aviation. Deep operations call for task-organized, combined-arms units that include airborne and aviation units to penetrate to the enemy’s operational depth independently of the main force. This requires a penetration of sixty or more kilometers to reach the enemy’s operational reserves, important C4 [command, control, communications, and computers], political, and economic sites, airfields, logistics bases, and strategic weapons.

5. David M. Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle* (Portland, OR: International Specialized Book Services, 1991), 18–20 and 57–59 (hereafter cited as Glantz, *Deep Battle*).

6. Marshal Mikhail N. Tukhachevsky, called the Father of Deep Battle, was a leading Soviet military leader and theoretician from 1918 to 1938. He was commander of the Soviet Western Front in the Russo-Polish War of 1920–21, Red Army Chief of Staff (1925–28), assistant in the People’s Commissariat of Defense after 1934, and the commander of the Pre-Volga Military District in 1937. He contributed to the modernization of Soviet armament and Army force structure in the 1920s and 1930s, and strongly influenced the creation of aviation, mechanized, and airborne forces. As a theoretician, he was the driving force behind the development of the theory of deep operations. See David M. Glantz, *August Storm: The Soviet 1945 Strategic Offensive in Manchuria*, Leavenworth Papers, no. 7 (Washington, DC: US Government Printing Office, February 1983), 222. Marshal Viktor K. Triandafillov, called the Father of Soviet Mechanized Warfare, was a close colleague of Marshal Tukhachevsky. He graduated from higher studies at the Red Army’s War Academy in 1923 and was appointed head of the military Operations Directorate under Frunze and Tukhachevsky. He became the Red Army Deputy Chief of Staff in 1928. In 1930, he assumed command of the 2nd Infantry Corp but returned to be the Deputy Chief of Staff in October 1930. Marshal Triandafillov was killed in an airplane crash on 12 June 1931, while on the way to Kiev for a District deep battle conference. Triandafillov has been described as the thinker who was sandwiched between

Tukhachevsky the dreamer and Triandafilov the “man of action.” Tukhachevsky was the operational thinker with an intense awareness of technology, and Triandafilov was the one who gave definitive form to Tukhachevsky’s ideas. G. Isserson was another military intellectual who played a key role in the development of the deep operations theory. A minor member of Tukhachevsky’s team, Isserson exerted the greatest influence on the Soviet concept of land operations. He coordinated and edited the 1936 Field Regulations. What is more important, Isserson survived the Great Purge. He is credited with reinstating the importance of maneuver and deep operations following the Soviet disaster during Operation Barbarossa. Isserson continued to be the central figure for deep operations theory following World War II. See Richard E. Simpkin, *Deep Battle: The Brainchild of Marshal Tukhachevskii* (New York: Pergamon Press, 1987), 32.

7. Richard E. Simpkin, *Red Armour: An Examination of the Soviet Mobile Force Concept* (New York: Pergamon Press, 1984), 24.

8. Glantz, *Deep Battle*, 20–21.

9. Glantz, 22.

10. Richard E. Simpkin, *Race to the Swift: Thoughts on Twenty-First Century Warfare* (New York: Pergamon Press, 1985), 37–38.

11. Glantz, *Deep Battle*, 69–71.

12. Glantz, 44.

13. Glantz, 25.

14. Simpkin, *Deep Battle*, 50.

15. A Soviet front is comparable to an army group.

16. Glantz, *Deep Battle*, 80 and 82.

17. Simpkin, *Deep Battle*, 46–47.

18. Col A. Yekimovskiy and Col N. Mararov, “The Tactics of the Red Army in the 1920s and 1930s,” in *Selected Readings From Military Thought, 1963–1973, Studies in Communist Affairs*, vol. 5, Parts I and II, comp. Joseph K. Douglass Jr. and Amoretta Hoerber (Washington, DC: US Government Printing Office, 1982), 94.

19. Simpkin, *Deep Battle*, 40.

20. Earl F. Ziemke, “The Soviet Theory of Deep Operations,” *Parameters* 13 (June 1983): 27.

21. Simpkin, *Deep Battle*, 48–49.

22. There is a link between Soviet deep battle theory (pre-World War II era) and German blitzkrieg. The Tsarist officer corps, of which Tukhachevsky was one, seems to have drawn on Western Europe for ideas and equipment. Tukhachevsky’s ideas on deep battle quickly blossomed after he attended the German staff college in the late 1920s. Apparently, this is where the seed was planted for his concepts of deep battle. There are differences between Soviet offensive doctrine (deep battle) and German blitzkrieg. However, there are also many similarities. See Simpkin, *Red Armour*, 25–26. Also, Heinz Guderian knew the Soviet theory of deep operations well enough to consider it as a possible model for German armor doctrine. See Ziemke, “The Soviet Theory of Deep Operations,” 23. Lt. Col. Paul Tiberi provides a detailed comparison in

his article "German versus Soviet Blitzkrieg," *Military Review* 65 (September 1985): 63–71.

23. Glantz, *Deep Battle*, 109.

24. Glantz, 28.

25. Glantz, 28.

26. Simpkin, *Deep Battle*, 60.

27. Simpkin, 273.

28. This is a compilation from many sources that include those books and articles by Armstrong, Bellamy, Dick, Donnelly, Glantz, Hines, Simpkin, and Ziemke.

29. Gen. P. Kurochkin, "Operations of Tank Armies in Operational Depth," in *Selected Readings From Military Thought, 1963–1973, Studies in Communist Affairs*, vol. 5, Parts I and II, comp. Joseph K. Douglass Jr. and Amoretta Hoerber (Washington, DC: US Government Printing Office, 1982), 94.

30. Richard Armstrong, "Mobile Groups: Prologue to OMG," *Parameters* 25 (Summer 1986): 66.

31. Glantz, *August Storm*, 60.

32. Glantz, 1.

33. Glantz, 29.

34. John Despres, Lilita Dzirkals, and Barton Whaley, *Timely Lessons of History: The Manchurian Model for Soviet Strategy* (Santa Monica, CA: Rand Corporation, 1976), 16 and 28.

35. Despres, Dzirkals, and Whaley, 26–27.

36. Despres, Dzirkals, and Whaley, 26–27.

37. Despres, Dzirkals, and Whaley, 27.

38. Lilita I. Dzirkals, "Lightning War," in *Manchuria: Soviet Military Analysis of the 1945 Far East Campaign* (Washington, DC: Rand Corporation, 1976), 8.

39. Glantz, *Soviet Strategic Offensive*, 29.

40. Glantz, 34.

41. Dzirkals, "Lightning War," 37.

42. Glantz, *Soviet Strategic Offensive*, 183.

43. Glantz, 98.

44. Glantz, 110.

45. Glantz, 165–166.

46. Glantz, xvii–xviii.

47. Dzirkals, "Lightning War," 11.

48. Dzirkals, 48–50.

49. Glantz, *Soviet Strategic Offensive*, xviii and 163.

50. William Fowler, "Russia's War against Japan," in *The Marshall Cavendish Illustrated Encyclopedia of WW II* (New York: Marshall Cavendish Corporation, 1972), 3000; Glantz, *Soviet Strategic Offensive*, 3.

51. Raymond L. Garthoff, "Soviet Operations in the War with Japan, August, 1945," *United States Naval Institute Proceedings*, May 1966, 52.

52. Glantz, *Soviet Strategic Offensive*, 2.

53. Despres, Dzirkals, and Whaley, *Timely Lessons*, 17.

54. Glantz, *Soviet Strategic Offensive*, 4.

55. Glantz, 39.

56. A desant is “troops intended for landing, or which have already landed, on enemy occupied territory, for the purpose of conducting combat operations. According to the transportation method used, a landing force may be amphibious, airborne, or combined; and according to its scale and purpose, such a force may be strategic, operational, or tactical.” From Simpkin, *Red Armour*, 176.

57. Col. G. Chernykh, “On the Employment of the 6th Guards Tank Army in the First Echelon of a Front,” in *Selected Readings From Military Thought, 1963–1973, Studies in Communist Affairs*, vol. 5, Parts I and II, comp. Joseph K. Douglass Jr. and Amoretta Hoerber (Washington, DC: US Government Printing Office, 1982), 343.

58. Despres, Dzirkals, and Whaley, *Timely Lessons*, ix.

59. Garthoff, “Soviet Operations,” 52.

60. Despres, Dzirkals, and Whaley, *Timely Lessons*, 63.

61. Garthoff, “Soviet Operations,” 55.

62. Despres, Dzirkals, and Whaley, *Timely Lessons*, 63.

63. Dzirkals, “Lightning War,” 82.

64. Despres, Dzirkals, and Whaley, *Timely Lessons*, 66.

65. Despres, Dzirkals, and Whaley, 1–5.

Chapter 6

Extending the Battlefield

General Donn M. Starry

The combined capabilities of acquisition, targeting, and weapons systems available to the commander today are astounding. The author contends that these systems, supplemented by new ones being fielded, allow the commander to “see” far beyond the front line of troops onto an “extended” battlefield, a battlefield upon which the full potential of our weapons must be exploited if victory is to be attained. While the idea of the extended battlefield is not new, the author argues that the extended attack must be an integral part of every Army combat unit’s capability.

The extended battlefield concept primarily deals with war in areas of the world where there are large numbers of relatively modern, well-equipped forces who use Soviet-style operational concepts and tactics. Quite naturally, therefore, the threat against which the concept is designed is typified by the Warsaw Pact in Central Europe, the larger aggregations of mechanized forces in the Middle East, or the threat from the north in Korea.

The concept emphasizes the all too frequently ignored or misunderstood lesson of history that, once political authorities commit military forces in pursuit of political aims, military forces must win something, or else there will be no basis from which political authorities can bargain to win politically. Therefore, the purpose of military operations cannot be simply to avert defeat, but, rather, must be to win.

This article does not propose new and radical ways to fight the battle to win. Rather, it describes an extension of the battle and the battlefield which is possible to accomplish now and which, if applied, will reinforce the prospects for winning.

The extended battlefield is not a new concept. It is a more descriptive term for indicating the full potential we must realize from our acquisition, targeting, and weapons systems. The battlefield and the battle are extended in three ways: First, the battlefield is extended in depth, with engagement of enemy units not yet in contact to disrupt the enemy timetable, complicate command and control and frustrate his plans, thus weakening his grasp on the initiative.

This chapter is a reprint of General Donn A. Starry, “Extending the Battlefield,” *Military Review* 61, no. 3 (March 1981): 31–50.

Second, the battle is extended forward in time to the point that current actions such as attack of follow-on echelons, logistical preparation and maneuver plans are interrelated to maximize the likelihood of winning the close-in battle as times goes on.

And, lastly, the range of assets figuring in the battle is extended toward more emphasis on higher-level Army and sister service acquisition means and attack resources.

What emerges is a perception of the battlefield in which the goal of collapsing the enemy's ability to fight drives us to unified employment of a wide range of systems and organizations on a battlefield which, for corps and divisions, is much deeper than that foreseen by current doctrine. The word "doctrine" is used advisedly. It must be acknowledged at the outset that there is probably little set forth in this article which is not already being done, and done well, in some operational units. The purpose of this article is less to suggest innovation than it is to pull together many good ideas for making extended attack an integral feature of our combat capability—in all units.

In essence, our message can be distilled in four primary notions:

- First, deep attack is not a luxury; it is an absolute necessity to winning.
- Second, deep attack, particularly in an environment of scarce acquisition and strike assets, must be tightly coordinated over time with the decisive close-in battle. Without this coordination, many expensive and scarce resources may be wasted on apparently attractive targets whose destruction actually has little payoff in the close-in battle. The other side of this coin is that maneuver and logistical planning and execution must anticipate by many hours the vulnerabilities that deep attack helps create. It is all one battle.
- Third, it is important to consider now the number of systems entering the force in the near and middle-term future (see Figure 6.1). These are not just weapons of greater lethality and greater range, but automated systems and communication systems for more responsive command-control, as well as sensor systems to find, identify, and target the enemy and to assess the effectiveness of deep attack.
- Finally, the concept is designed to be the unifying idea which pulls all these emerging capabilities together so that, together, they can allow us to realize their full combined potential for winning.

The extended battlefield is not a futuristic dream to remain on the shelf until all new systems are fielded. With minor adjustments, corps and divi-

sions can and must begin to learn and practice fighting the extended battle now—during 1981. The payoffs in readiness for combat will be enormous, and implementing the concept today means that we are building the receptacle into which every new system can be plugged immediately, minimizing the buildup time to full capability.

To ensure that the extended battlefield concept is understood in the full context of the integrated conventional-nuclear-chemical battlefield, this article will first review, in a broad sense, major aspects of the concept. Then it will describe how, by attacking assaulting and follow-on echelons simultaneously, the prospects for winning increase dramatically.

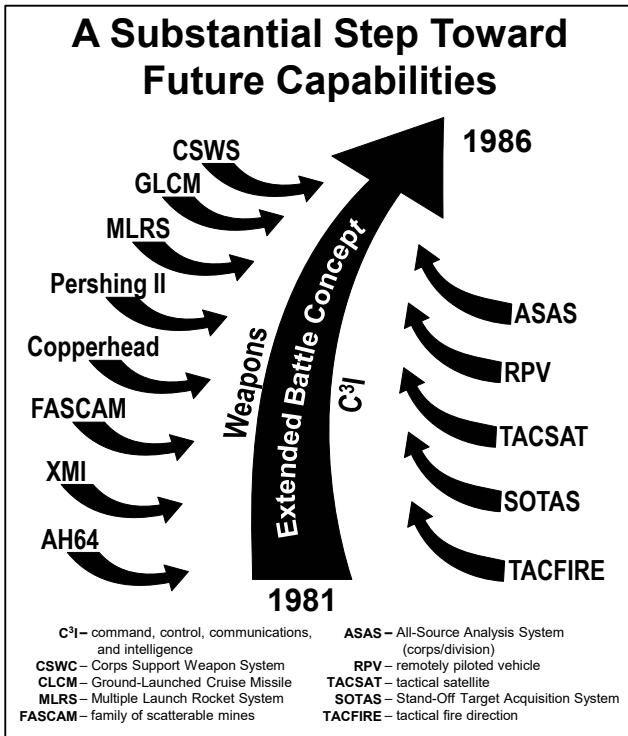


Figure 6.1. A Substantial Step toward Future Capabilities.

The Concept

In peacetime, the purpose of military forces, especially in the context of operations in areas critical to US interests, is to reduce to a minimum whatever incentives the enemy's leadership might perceive as favorable to seeking military solutions to political problems. In NATO, in the Middle East, and in Korea, our defensive strategy must extend beyond simply

denying victory to the other side. It must, instead, postulate a definable, recognizable (although perhaps limited) victory for the defender. Enemy leaders must be made to understand clearly that, if they choose to move militarily, no longer will there be a status quo antebellum—something to be restored. Rather, the situation they themselves will have created is one which will be resolved on new terms.

As the strategic nuclear balance teeters, so grows the enemy's perception of his own freedom of action at theater levels—conventional and nuclear. Theater forces should not be considered solely as a bridge to strategic nuclear war. They are weapons which must be considered in the context of a war-fighting capability. These considerations dictate that NATO strategy must, from the outset, be designed to cope with the Soviet conventional-nuclear-chemical-combined arms-integrated battlefield threat. The growing threat of nuclear capabilities elsewhere suggests this strategy to be appropriate in other critical areas as well.

The Warsaw Pact/Soviet-style strategy embraces two fundamental concepts:

- In the first, mass, momentum, and continuous combat are the operative tactics. Breakthrough (somewhere) is sought as the initiator of collapse in the defender's system of defense.

- In the alternative, surprise is substituted for mass in the daring thrust tactic. In NATO, this could involve a number of BMP regiments in independent attacks which, without warning, would seek to deny to defending forces the opportunity to get set forward. Both tactics are essentially maneuver-based schemes whose purpose is to disrupt the operational tactics of the defender, albeit by different methods.

The need for deep attack emerges from the nature of our potential enemies—their doctrine and their numerically superior forces. Whether our enemy is stylistically echeloned as shown in Figure 6.2 is not really critical. What is important is that superiority in numbers permits him to keep a significant portion of his force out of the fight, with freedom to commit it either to overwhelm or to bypass the friendly force. The existence of these follow-on echelons gives the enemy a strong grip on the initiative, which we must wrest from him and then retain in order to win.

NATO strategy (and defensive strategies in other key areas of the world as well) must be designed to preserve the territory, resources, and facilities of the defended area for the defender. In none of the critical areas of the world, those to which US forces are likely to be committed, is there sufficient maneuver room to accommodate a traditional defense-in-depth

strategy. The defense must, therefore, begin well forward and proceed aggressively from there to destroy enemy assault echelons and at the same time slow, disrupt, break up, disperse, or destroy follow-on echelons in order to quickly seize the initiative and go on the offense.

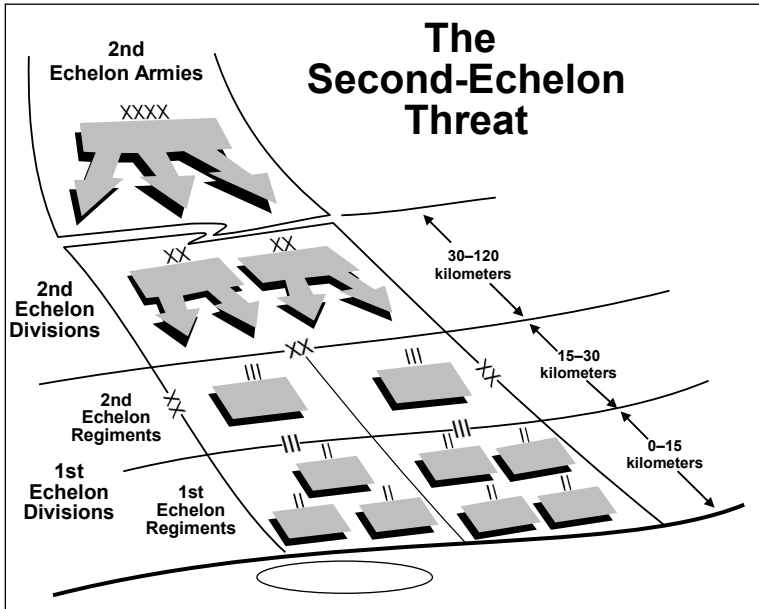


Figure 6.2. The Second-Echelon Threat.

The operative tactics by which US forces seek to implement the operational concept set forth above must provide for quick resolution of the battle under circumstances that will allow political authorities to negotiate with their adversaries from a position of strength. This is so because the enemy generally enjoys a short-term advantage in ability to mobilize additional forces quickly. Clearly, then, one purpose of the battle concept must be to pre-empt the possibility of prolonged military operations. Further, these operative tactics should seek simultaneously to:

- Deny enemy access to the objectives he seeks.
- Prevent enemy forces from loading up the assault force fight with reinforcing assault echelons and thus achieving by continuous combat what might be denied them by a stiff forward defense.
- Find the opportunity to seize the initiative—to attack to destroy the integrity of the enemy operational scheme, forcing him to break off the attack or risk resounding defeat.

Because of the enemy's advantage in numbers, attack of follow-on echelons must always begin when those echelons are relatively deep in enemy territory. If an outnumbered defender waits until his numerically superior foe has penetrated the defender's territory to mount a counterattack, it is always too late to bring effective forces and fires to bear to defeat the incursion. This would especially be the case if theater nuclear weapons were considered necessary to defeat the penetration.

Therefore, on an integrated battlefield, systems designed to defeat enemy assault elements, to disrupt follow-on forces, and to seize the initiative by attack must be able to deliver conventional and/or nuclear fires throughout the spectrum of the battle—throughout the depth of the battlefield.

Key to a credible war-fighting capability on an integrated battlefield are:

- Sensor/surveillance systems to prevent surprise attack in peacetime and provide necessary targeting/surveillance information in wartime.

- Delivery systems—dual capable, with sufficient range, accuracy, and lethality to hold enemy follow-on echelons at risk in peacetime and to attack them successfully in wartime.

- Command-control sufficient to integrate all-source intelligence in near real time in peacetime and in wartime and to provide that intelligence and targeting information to maneuver force employments in near real time as well.

The operative tactics which support such an operational concept of an integrated defense well forward are:

- See deep and begin early to disrupt, delay, or destroy follow-on/reinforcing echelons.

- Move fast against the assault echelons.

- Strike assault echelons quickly so as to prevent them from achieving their objectives.

- Finish the opening fight against assault and follow-on echelons rapidly so as to go on the attack and finish the battle against the assault armies before follow-on armies can join the battle.

Areas of Interest and Influence

In the execution of such a set of operative tactics, there must be a division of responsibilities among commanders. Just as the means with which commanders see and fight the battlefield vary, so should their primary areas of interest.

As shown in Figure 6.3, each level of command has a dual responsibility. Each must attack one of the enemy's echelons and must see, or determine the intentions of, a follow-on echelon. Doctrinally, we say that the enemy's first-echelon divisions, the regiments in front of the assault divisions, as well as the follow-on regiments, are the responsibility of the defending division.

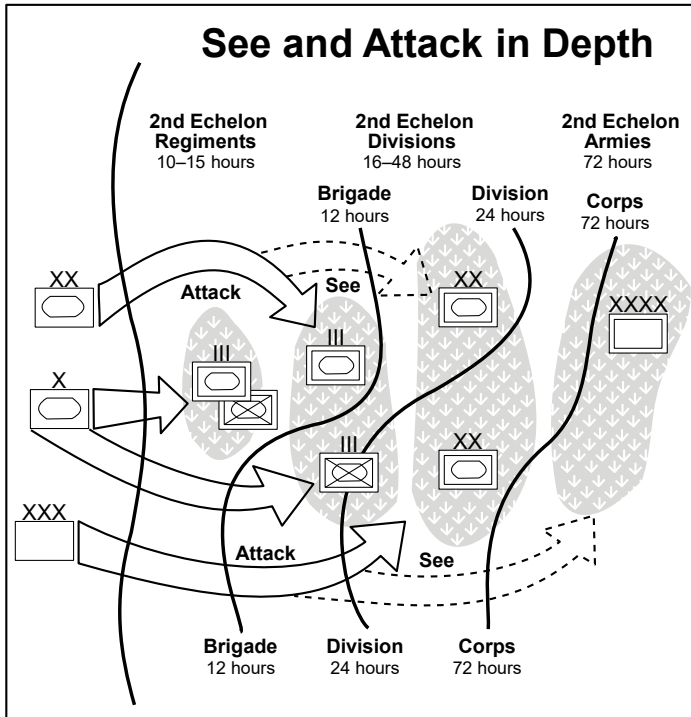


Figure 6.3. See and Attack in Depth.

In an attack, those same echelons would also be the division commander's responsibility. The brigade commander fights first-echelon assault regiments. The division commander fights the first-echelon assault divisions. The corps commander fights first-echelon armies. It is the corps commander's responsibility to find and disrupt the advance of second-echelon divisions of first-echelon armies before they become a part of the first-echelon problem.

At the same time, the corps commander is very interested in where the second-echelon army of the *front* is deploying. At corps level, he must tie into national target acquisition systems and other surveillance means to get information concerning where that army is and what it is

doing. His primary responsibility in battle fighting has to do with the follow-on echelons.

Attacking the Follow-on Echelons

For such a division in areas of interest and influence to be effective in wartime, it must be frequently practiced during peacetime. It is critical for us to realize that, as the enemy achieves the echelonment so necessary for his success, he inherently creates vulnerabilities—targets. These same vulnerabilities provide us with the opportunity to put threat second-echelon forces at great risk. But only through repetitive exercise can we capitalize on his vulnerabilities.

What we must do is practice acquiring and targeting Warsaw Pact units now—during peacetime—so we will be prepared to attack them if need be. In addition, we can do careful intelligence preparation of the battlefield and thus be prepared to attack high-value targets. Such targets include fixed bridges and mobile sites that will cause threat follow-on echelons to bunch up and present themselves as attractive targets. Additionally, attacking other high-value targets such as combat service support facilities, which must exist to support rolling forces, or selected command posts, will also generate delay. Attacks directed in this manner will provide friendly forces time to finish the battle at the forward line of troops (FLOT).

Figure 6.4 shows the problem inherent in fighting against echelonment tactics. If the battle is fought with no directed interdiction, enemy follow-on echelons have a “free ride” until they enter the close-in battle. Figure 6.4 suggests what happens when follow-on echelons are ignored and allowed to stack up behind assaulting forces at the FLOT until a breakthrough is achieved. The enemy retains flexibility, initiative, and momentum to apply his mass at a point and time of his choice. Deep attacks seek to deprive him of this freedom. There are three primary tools for a deep attack:

- Interdiction—air, artillery, special operations forces.
- Offensive electronic warfare.
- Deception.

In practical current terms, interdiction—principally battlefield air interdiction—is the primary tool of deep attack. At present, the range of jammers precludes effective use against follow-on echelons. However, jamming can be used in the close-in battle as a nonlethal substitute for fires and battlefield air interdiction sorties, which can then be freed for deep attacks.

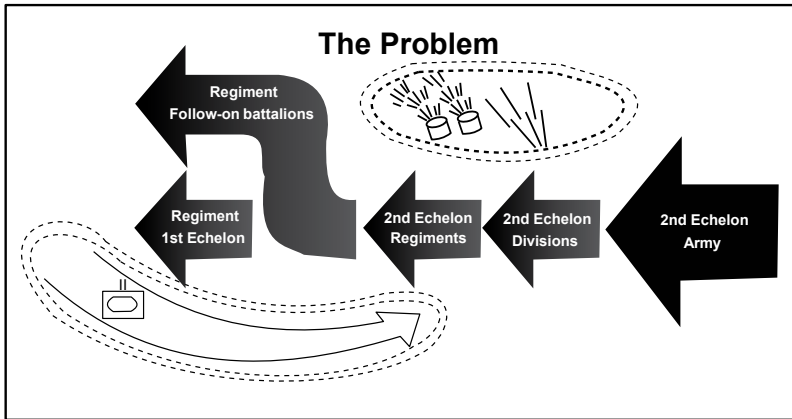


Figure 6.4. The Problem.

We would like deep attack to destroy enemy forces before they enter the close-in battle, but in today's terms and in all probability tomorrow's as well, expense and scarcity of assets will limit the practically achievable effects to delay and disruption. Delay and disruption, however, must be aimed at more ambitious goals than just fractional attrition or harassment.

The real goal of the deep attack is to create opportunities for friendly action—attack, counterattack, or reconstitution of the defense—on favorable ground well forward in the battle area. This can be done by avoiding piecemeal employment of acquisition means and attack resources. These resources must be concentrated on critical targets which have the most payoff in upsetting enemy plans and on creating situations wherein the friendly force can seize the initiative and win.

It is important to stress here that the deep attack is not just a tool of the defense. It is, if anything, even more critical in the offense. It is essential to winning because it creates opportunities to seize and retain the initiative. It is equally important that corps and division commanders fight this deep battle at the same time and in close coordination with the close-in battles. It is true that these commanders already have their hands full with the close-in battle, but the compelling reason for active corps and division commander involvement is that the number of targets we would like to attack and can acquire far exceeds available attack assets.

It is also essential, then, that attack means not be applied indiscriminately. Limited strike and acquisition means must be applied in a planned, well-organized and conducted scheme to support the plan for winning. Piecemealing long-range target acquisition and attack resources is a luxury that cannot be allowed.

The commander's choice of when to use deep attack means must be taken in such a way that it will create a window for offensive action some hours in the future. That choice must be based on a single unified scheme of maneuver and a plan of fires for the whole of the extended battle. The expected window for decisive action must be created in an area where previous plans have assured the availability of sufficient logistical support and fire support as well as maneuver forces.

This demand for careful coordination of present and future action throughout the depth of the battlefield dictates that the plan stem from the concept of a single commander. Separation of the close-in and follow-on battles invites the risk that windows will not be generated or that, if generated, units will be ill-prepared to identify and exploit them.

What emerges from this requirement for unity of command across the near and far components of the fight is a view of an extended battlefield, with well-defined depth and width, in which the commander is fighting not several separate battles, but one well-integrated battle with several parts highly interrelated over time. The depth of this battlefield beyond the FLOT is really a function of the commander's planning horizon expressed in hours.

The following scenario describes an integrated battle situation in which it would be greatly to the commander's advantage to fight assault and follow-on echelons simultaneously. From the outset it is acknowledged that, in this scenario, it would be advantageous to use tactical nuclear and chemical weapons at an early stage and in enemy territory. It is also fully realized, however, that authorization to do this may not be granted in a timely fashion. And, that being the case, the battle will have to be fought with so-called conventional systems. Even though this somewhat reduces defensive combat power, the concept described here maximizes the remaining conventional power.

Figure 6.5 portrays the corps commander's concerns in the deep battle—those enemy forces that are within seventy-two hours of the close-in battle. The corps commander needs to have a well-laid-out, flexible plan for seventy-two hours into the future in order to fight both close-in and extended battles, gain the initiative, win the fight, and do it quickly. What is the purpose of looking out to seventy-two hours' depth? There are many things a corps must do in those hours. They should be used to plan, order, and execute those maneuver, fire support, and logistical preparations necessary to seize on an opportunity for offensive action.

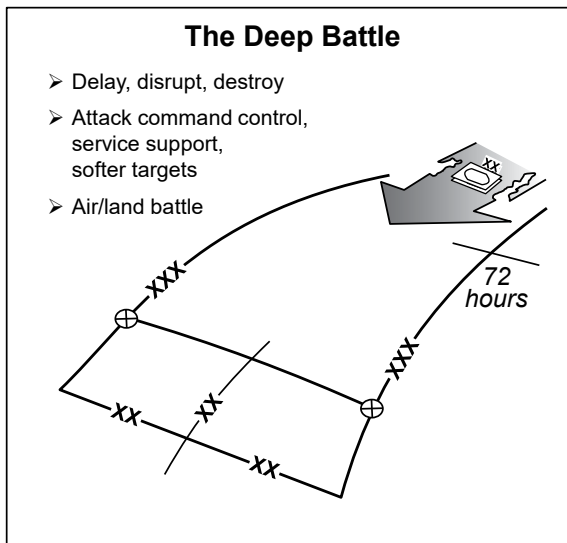


Figure 6.5. The Integrated Battle: The Deep Battle.

The presence of any enemy formation in the corps commander's area of influence should trigger a re-evaluation of his long-range plan and generate options for defeating this force along with all others in the area of influence. Several options will probably be retained at this point. However, the range of options narrows as the force approaches and closure time decreases. Almost all options will include attack of the force to inflict delay and disruption. Although distances here are great, the payoff can be considerable since the critical targets include soft-skinned logistical and command-control elements whose value will be far less when closer to the front-line battle.

As the force closes (Figure 6.6), its impending impact on the front-line battle will become more apparent, and the relative merits of the various attack options will begin to sharpen. Options at this stage should include deep nuclear strikes with *Lance* or air-delivered weapons. Targets at this stage are far more vulnerable to nuclear effects than at the FLOT. They are still well beyond the danger radius to friendly forces, and the time until closure is realistic enough to allow request, release, and execution to occur.

Of course, the commander must have a strong conventional option in the event nuclear release is not forthcoming. He must identify the critical time at which he must finally commit himself to one course of action. In any event, he seeks to hold the enemy formation out of the division area of influence long enough for division commanders to have sufficient space and time to accomplish their missions and prepare for the next echelon.

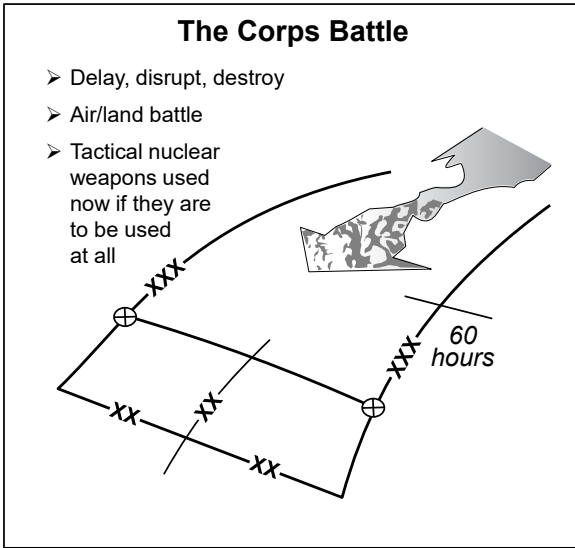


Figure 6.6. The Integrated Battle: The Corps Battle.

When the force enters the division area of influence (Figure 6.7)—about 24 hours' distance from the FLOT—the entire process is triggered again on a lower scale. Here, the importance of real-time target acquisition dominates. Since, at this point, the attacker is committed to specific attack avenues, he has few movement alternatives left to him. The defender can capitalize on that. Again, if tactical nuclear weapons are to be used, they must be used now.

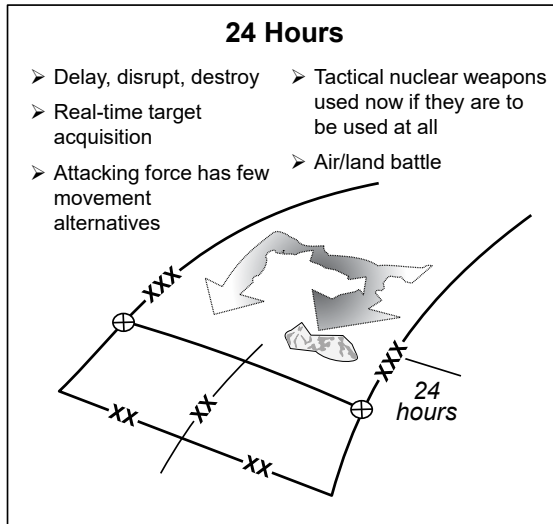


Figure 6.7. The Integrated Battle: 24 Hours.

A review has been made of innumerable planning exercises in which assumed enemy penetrations were drawn with great care to reflect that point “beyond which the integrity of the defense is jeopardized.” It was found that, if the penetration was allowed to develop as it was drawn in the defended territory, it was always too late. If for no other reason, therefore, it is of paramount importance that the planning process begin while that follow-on echelon target is still deep in enemy territory and that nuclear release be requested in sufficient time to allow employment while the target is still twenty-four to sixty hours from the FLOT.

As in the earlier part of this battle, the commander must integrate the full spectrum of air and land weapons systems. It is, at this point, still an air/land battle, perhaps more air than land, however.

By the time the following echelons close to within about 12 hours of the FLOT (Figure 6.8), they become the concern of the brigade commander. At the 12-hour line, actions must be taken that not only delay and disrupt the following echelons, but also help to defeat those in contact at the FLOT. Given the right target, and that the enemy has already used chemical weapons, it is here that our use of them can be integrated. They should be used to isolate one part of the battlefield while an attack is launched against another part of the follow-on forces. It is here that the land aspects of the battle predominate—that is, the battle is more land than air.

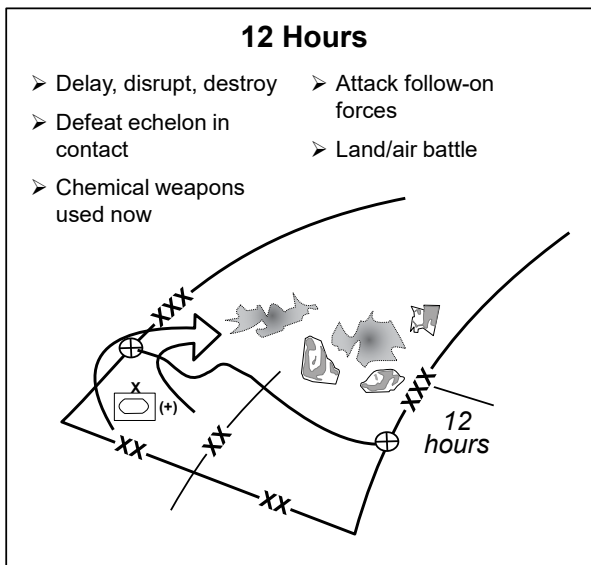


Figure 6.8. The Integrated Battle: 12 Hours.

With a little luck, the outcome (Figure 6.9) will find enemy assault forces destroyed, freedom to maneuver restored, and the initiative captured from the enemy. In the end, this simultaneous attacking of echelons becomes key to the primary objective of the extended battlefield—to win, not just to avert defeat.

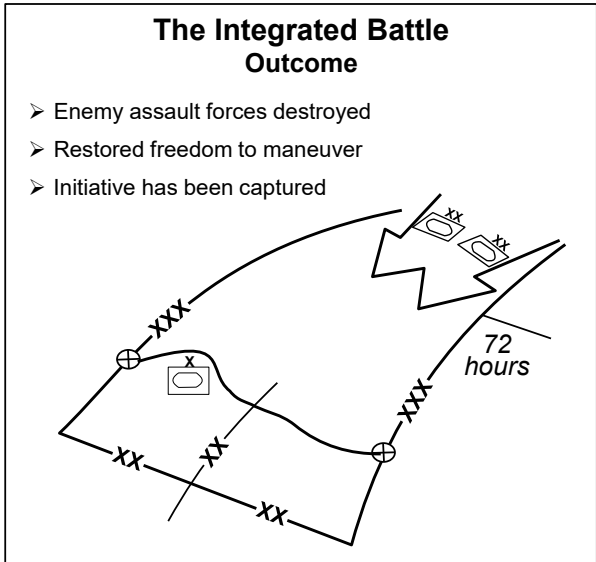


Figure 6.9. The Integrated Battle: Outcome.

Studies show clearly that successful interdiction does result in a degradation of the enemy's massive firepower. It is also clear that successful interdiction results in a reduction of enemy momentum brought on through loss of support, and that it provides the defender time to secure nuclear release if required. Finally, interdiction reduces the attacker's alternatives by disrupting his ability to execute his intended plan.

The conviction that well-planned interdiction can provide these results is based in part on the target value analysis phase of a fire support mission area analysis completed by the US Army Field Artillery School. Part of that analysis was a simulation comparison of 1980 European corps battles, first without interdiction and then with interdiction. While the predicted availability of interdiction means may have been sanguine, some significant trends were, nonetheless, observed.

Each of the potential interdiction effects in Figure 6.10 is highly desirable. But their exact significance is more apparent considering the simu-

lation output over time. Specifically, a look at the effect of interdiction on enemy strength at the close-in battle shows the real value of deep attack.

Effect of Interdiction

- **Enemy is able to mount fewer regimental attacks**
- **Enemy first echelons defeated earlier**
- **Friendly reserves not needed so early**
- **Enemy penetrations far less extensive**

Figure 6.10. Effect of Interdiction.

The top curve in Figure 6.11 shows that, without interdiction, the enemy is able to maintain consistent superiority at the FLOT over time. During this period, the defender's strength dwindles, freedom of action deteriorates, and the enemy's grip on the initiative decisively tightens.

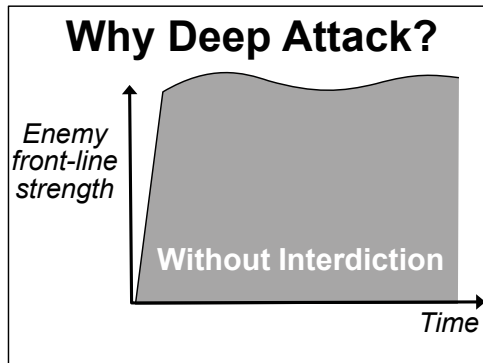


Figure 6.11. Why Deep Attack? Without Interdiction.

What properly employed interdiction can provide is shown in the lower curve in Figure 6.12. Here, enemy follow-on echelons are held out long enough to create periods of friendly superiority in which the initiative can be seized with enough time to act. The longer and more frequent these windows can be made, the greater the chance of winning, providing we are prepared to identify them and act at the time and in the place where they develop.

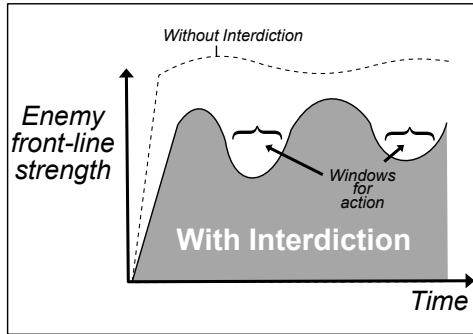


Figure 6.12. Why Deep Attack? With Interdiction.

We may not be capable of creating windows of such frequency and duration across the entire corps front. However, it is now possible to create such opportunities, and, if aggressively exploited, they could lead to the generation of longer, more extensive opportunities for higher level decisive action building toward a major offensive (Figure 6.13).

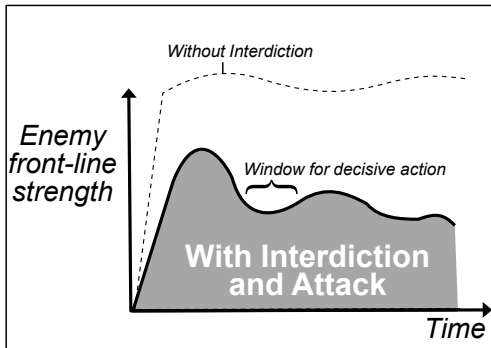


Figure 6.13. Why Deep Attack? With Interdiction and Attack.

Interdiction Planning

Summarizing, it can be seen that interdiction is key to battlefield success. The enemy's momentum can be altered by attacking high-value, second-echelon targets, reducing his ability to mass and build up momentum. Interdiction is the method whereby we achieve the leverage necessary to slow him down and ultimately stop him from achieving his objectives.

It is interdiction that allows us to focus our attacks on those enemy targets whose damage, destruction, or disruption would help us fight the battle to our advantage. Interdiction has as its main objective that portion

of the enemy's force which is moving toward the FLOT or is in staging areas preparing to join that fight.

This interdiction concept does, however, imply some changes in current ways of thinking, especially in command and control. In order to execute the concept, we must recognize the need to learn how to skillfully use resources far beyond those organic to corps and division and to plan their application over a greatly expanded battlefield. Of significance here is the establishment of timely and responsive working relationships with air forces for both target acquisition and attack.

The interdiction battle will be fought at the corps and division level. To do this well, it must be practiced routinely. Interdiction targets at division level are directly linked to tactical objectives. At corps, however, interdiction is a function of controlling target presentation rates and densities. As the enemy's second echelon moves closer to the FLOT, interdiction becomes more closely related to the defensive scheme of maneuver.

Advanced planning is absolutely critical to a successful interdiction battle. It is imperative that such planning be conducted continuously. This will ensure that commanders are aware of courses of action open to the enemy, and the vulnerabilities of each, thus enabling them to attack targets which present the highest payoff at a particular time. Prior to and during initial stages of the battle, the division intelligence officer, applying intelligence preparation of the battlefield techniques, must forecast enemy strength, progress, and dispositions at selected times. By assessing these developing vulnerabilities, he can recommend courses of action for interdiction attacks. When blended with the scheme of maneuver, these enemy vulnerabilities can then be exploited.

Following such an interdiction planning process, the intelligence officer can develop an enemy probable event sequence which can be used to predict with some high degree of accuracy which courses of action the enemy is likely to follow. That is, the intelligence officer should be able to forecast what events must occur and in what order to produce the desired disposition of enemy forces at any critical moment. This probable event sequence is simply a template against which to assess the progress of events. It identifies interdiction requirements which will have to be met if friendly commanders are to influence the battle in a desired direction.

Interdiction targeting can be a complex and demanding staff process, particularly at division level. Its effect is to create time and space gaps, not to relieve maneuver forces of having to face second-echelon elements. It is most effective when it is an integrated effort, one which

effectively integrates fire support, electronic warfare, deception, and intelligence with maneuver.

Current and Future Capabilities

Having made a case for effective, continuous interdiction, what is the Army doing to achieve such a capability? Considering the weapons, sensors, and automation capabilities which will be available through *Army 86* efforts, we will be able to do these things quickly and efficiently on the battlefield of the mid-to-late 1980s.

But what about now? The answer is that there is, today, considerable potential to do just what has thus far been described. Since the penalty in terms of battle outcome is too severe to wait to adopt the extended battlefield concept until 1986, our Army must set about seeing how we might get the most from current capabilities.

Even using conservative planning factors, interdiction of critical enemy second-echelon elements is possible within existing means. But, to make that a reality, we must begin transitioning to those concepts now and practice them daily. If we begin that transition with the resources at hand, we will thus be better prepared to fight and win while simultaneously maturing the conceptual notions in the day-to-day work of operational units. Such an approach will also ensure that we have the right capabilities included in the *Army 86* force designs.

And so, as in all aspects of our profession, we must practice now what we intend to do in war. We must train as we will fight. Management of sensor assets in peacetime by those who will be expected to use them in war is the only prudent approach.

The same applies to the correlation of data in determining high-value targets. We must get the data into the hands of those who will be expected to use it in the future. We must establish integrated targeting cells in all fire support elements now. It is important that this capability be developed at corps and divisions for nuclear as well as conventional and chemical targeting. It is important that it be done in all US Army units worldwide.

For the present, many of the acquisition means and most of the attacking means will come from air forces. This is particularly true for corps interdiction requirements. Regardless of who owns them, these are the means we need to gain the best battlefield return. Applying them according to the conceptual notions described above is the way to realize their greatest potential.

Recent exercises have demonstrated that the type of targeting information described earlier is available now—with current means. What next needs to be done is to design exercises for corps and divisions which will focus that information at their level. To make the interdiction battle occur properly, and in a timely manner, corps and divisions must also be able to manage the current family of sensors.

We know the tendencies and patterns of threat units when they are deployed as they would be in a second-echelon formation. The task is to make this information available to corps and division commanders for their use in interdiction targeting.

For timely acquisition, we need to ensure that corps have control of sensor systems such as the OV-1D side-looking airborne radar, Guardrail, Quicklook, and the Integrated Test/Evaluation Program. Of equal importance is that there be a direct down-link of this information to divisions. Data from a number of other supporting means must also be made available. This category includes the RF-4C and other national and theater systems. Among the most challenging problems is to create the down-links necessary to pass what is already available to corps and divisions in a timely manner.

The Need for Training Target Cells

To begin an adequate effort at fusing this data and developing interdiction targeting, cells must be established in all fire support elements at levels from brigade through echelons above corps. These cells must learn to exploit enemy vulnerabilities by blending the information and expertise available from all-source intelligence centers and electronic warfare support elements. Historically, we have focused all our training efforts on winning the fight in the main battle area. However, we are now entering a new dimension of battle which permits the simultaneous engagement of enemy forces throughout the corps and division area of influence.

To accomplish this, we must emphasize training in four basic areas:

- Friendly acquisition capabilities.
- Threat tactical norms.
- Friendly attack systems.
- Specific techniques such as target value analysis and intelligence preparation of the battlefield.

For this to be totally successful, both Army and Air Force targeteers must be trained to work together in these functions. Microcomputers,

which are currently available in an off-the-shelf configuration, can provide excellent assistance to this training effort. They can store a multitude of data, from terrain features to fire plans, from friendly weapons systems to likely threat courses of actions. They can perform target analyses and display them in alphanumeric and graphics. If such systems were available in division targeting cells now, and we created the necessary down-links for passing acquisition data, targeteers could train now at their wartime tasks in a realistic manner.

Figure 6.14 shows a notional division fire support element. The operations cell includes target analysts. What needs to be done, and we have embarked on this course, is to establish the targeting cell and staff it with people who are currently performing smaller tasks elsewhere. We must bring the operations types and the targeting types together.



Figure 6.14. Notional Fire Support Element.

For such a fire support element to be effective, its personnel must train together daily, as a team, using real-time or near-real-time data supplied by an integrated sensor network such as that described earlier. If actual real-time data is not available, then simulated acquisition information could be used, so long as the database was developed from previously collected actual information.

Through continuous intelligence preparation of the battlefield, a clearer analysis of the area of operations can be developed, one which will facilitate updating interdiction plans and thereby better support operations plans. Such a training activity would contribute greatly to developing confidence and proficiency. By exchanging views and working together,

Army and Air Force target cell personnel could establish a credible capability now to deal with any future second-echelon threat.

Remaining Challenges

Like most things of great worth, this capability will not be easily gained. There are many challenges but, in the end, it will be worth all the effort necessary to make it happen. Foremost among the challenges are those which inhibit our ability to blend current operational requirements of sensor means with the need to conduct real-time training at divisions and corps. It will also be difficult, though essential, that appropriate security clearances be acquired for all personnel working in the target cells. This is especially important, for they must have access in peacetime to the data they will be expected to process in war.

Recognizing it is beyond our capability to conduct actual exercises which simulate threat second-echelon patterns so target cells will have something to train against, it is within the state of the art for computer simulations to postulate and portray scenarios which the enemy traditionally follows because they are based on his known tendencies. This would be a useful substitute for targeteers to practice such analytical tasks as event sequencing. Lastly, we must continue to upgrade our communication capability and take advantage of existing commercial facilities. If we do all this, the payoff will be more than worth the investment.

Summary

The challenges notwithstanding, the message of all this is quite clear:

- Attacking deep is essential to winning.
- Attacking deep and the close-in fight are inseparable.
- The extended battlefield concept is the keystone of force modernization.
- We can begin today to practice, learn, and refine the extended battlefield concept.

The ideas of the extended battlefield concept are, in fact, the very same ideas upon which the *Army 86* concepts are based—see and attack deep. And, as might be expected, therefore, organizations of *Division* and *Corps 86* correspond in makeup and function to elements of the extended battlefield team.

The question before the Army now is how to implement the concept quickly. While there are yet some questions, it is not likely that man-years of study will clear them up to the satisfaction of all concerned. It is, there-

fore, time to field and learn to use the concept on the ground with real troops, real equipment, and the real-world problems of field commanders.

The time for implementation is now. This is so because there is, first of all, promise of a major increase in combat effectiveness with current means. There also exists an enhanced capability to exploit new sensors, weapons, and command-control systems as they are fielded. This enhanced capability is even more evident in the field of microprocessors and computers. As a nation, we have a considerable advantage over our potential adversaries in this technological field. If we strive to put that advantage to work for us, it could become a significant combat multiplier. And, finally, of equal importance, there is an opportunity to cause the enemy to wrestle right now with a problem he has traditionally assumed does not exist.

Army leadership is so convinced that a real potential exists now, if current assets are organized correctly, that a four-phase program has been developed. Phase one, already begun, includes conferences at each major command designed to lay down the basic ideas. This article is part of that phase. In phase two, the US Army Training and Doctrine Command and the major Army commands will jointly refine implementation proposals to fit specific priorities and assets.

In phase three, the joint product will be provided to corps and divisions in the field. In phase four, Army service schools and centers will conduct training in the concept and implementing procedures to ensure that officers and noncommissioned officers leaving the training base are ready for their respective roles on the extended battlefield.

About the Author (from the 1981 article)

General Donn A. Starry is commander of the US Army Training and Doctrine Command, Fort Monroe, Virginia. He received a BS from George Washington University and is a graduate of the US Army Command and General Staff College, the Armed Forces Staff College, and the Army War College. Assignments include serving as commanding officer of the 11th Armored Cavalry Regiment during one of three tours in Vietnam and as commander of V Corps, US Army, Europe.

Chapter 7

Maneuver in the Deep Battle

Lt. Col. L. D. Holder

An element of today's combat doctrine receiving considerable attention is the deep battle. It is a valuable technique that enhances the combat effectiveness of a force properly employing it. This article describes various means of using maneuver forces in the deep battle.

Emphasis on operations in depth is one of the principal features of current doctrine. The revised Field Manual (FM) 100-5, *Operations*, describes deep attack as a coordinated effort to delay, destroy, or disrupt enemy forces or facilities beyond the immediate area of battle in order to gain a tactical or operational advantage. Generally, the goal of deep attack is to prevent the enemy from freely maneuvering forces in depth to reinforce an attack, to shore up a defense, or to counteract an operation of a friendly force.

When US forces defend, deep attack can be used to isolate segments of an attacking force and thereby facilitate their piecemeal destruction.¹ During offensive operations, it can prevent enemy interference with friendly maneuver, inhibit enemy efforts to reinforce a position or area, or prevent the escape of an enemy force under attack. In any case, deep attack complements the central concept of operations. It is neither a side show nor an optional activity without importance to the outcome of battle. It is an inseparable part of a unified plan of operations.

The value of interrupting the enemy's concentration of forces, finding and striking his reserves, and depriving him of critical support or command and control has been demonstrated historically.² However, the US Army's revived interest in deep attack has led to the inclusion of some new terms and concepts in FM 100-5. Commanders' planning horizons have been extended in time and space into areas of interest and influence, and intelligence preparation of the battlefield and continuous reconnaissance, surveillance, and target acquisition have taken on new importance. Also, a fresh approach to targeting—target value analysis—has been devised to improve the effects of deep attack and orient intelligence collectors more precisely.

This chapter is a reprint of L. D. Holder, "Maneuver in the Deep Battle," *Military Review* 62, no. 5 (May 1982): 54–61.

The current idea of deep attack stresses the use of the long-range sensors and weapons that are available now and will become more numerous in the future. It places great reliance on our ability to coordinate intelligence from all sources with timely delivery of attacks in depth. Electronic warfare, cannon and missile artillery, and conventional and unconventional ground forces are among the attack means although the Air Force's battlefield air interdiction capability will be the mainstay of deep attack in the present.³

Maneuver Forces

The most widely publicized idea of deep attack focuses on defensive warfare and emphasizes the role of long-range firepower.⁴ As deep attack is integrated into doctrine, however, it will also be profitable to explore the part that maneuver forces can play in the deep battle. There is every reason to believe that infantry, armor, and air maneuver forces can be used with great effect in the deep battle in both offensive and defensive operations.

Maneuver forces, fighting in depth, offer some considerable advantages over deep attack by fire alone. The direct-fire weapons of maneuver units and the conventional, nuclear, and chemical munitions they can carry will create a stronger, wider, and more lasting effect on the enemy than conventional long-range fire support systems.

Maneuver forces can also adjust their actions and supporting fires to the enemy's movements and countermeasures. Moreover, their requirements for precision in timing and intelligence are less demanding since they are present for an extended period and can spot and engage targets simultaneously. They are more numerous, more available to commanders, and, in some cases, more responsive than the scarce high-technology weapons used for long-range interdiction. Finally, the psychological impact of the actions of maneuver forces is particularly strong.

The risks involved in employing maneuver forces in the enemy's rear area are obvious. But the potential for success is so great that such operations will be justified in many instances. When directed against high-value targets such as enemy reserves, command posts, supply dumps, or terrain choke points, maneuver forces can produce the windows for offensive action critical to defensive success or preserve the initiative for offensive operations.

Maneuver forces can contribute further to the overall operation by causing the enemy to open otherwise silent radio nets and thus expose his following formations to identification and location. Their attacks may also compel him to move and resupply reserve forces during daylight and thereby create lucrative targets for other means of interdiction.

The same intelligence, surveillance, and long-range weapons systems used to mount attacks in depth by fire alone can be used to improve the effectiveness of maneuver units in the deep battle and to reduce the risks they face. Intelligence preparation of the battlefield will indicate where enemy concentrations are apt to occur, where enemy movement can be blocked, and where friendly forces can move most easily. Long-range sensors can pinpoint targets, identify enemy reserves, assess the effect of a maneuver in depth, and assist in guiding the friendly force through dangerous areas. Long-range fire support can increase the destructiveness of the attack and protect ground forces by obstructing approaches to their flanks and rear.

Benefits Accrued

The operations of aerial or ground maneuver units in the enemy rear represent much more to the enemy commander than mere bombardment: They *require* his attention and counteraction. They can be counted on to force him to relocate command posts, supply dumps, and artillery. They will also tie up his reserves, disrupt his air defenses, and ruin his march schedules by closing routes and attacking columns.

The redirection of supply and support units, the adjustment of march tables, the mounting of reconnaissance operations, the diversion of engineers, and the institution of special security measures will absorb a sizable amount of the enemy's planning time. This will distract some of his attention from his main effort. The destruction of carefully chosen, high-value targets and the forced displacements of missile artillery, helicopter, and radio-electronic combat units in the enemy's rear could easily make a battalion or brigade, operating in depth, more valuable than it would be fighting deployed enemy forces in the main battle area.

Additionally, the confusion and uncertainty sown in the enemy command post by the presence of a destructive force of unknown size and intentions in the rear are considerable. The size and capabilities of such forces are commonly overestimated by opposing commanders, and otherwise steady enemy troops can sometimes be shaken by the idea of being bypassed. Such demoralization cannot be counted on as a matter of course, but it often occurs when forces are mixed. It will only work in our favor if we take steps to deny the enemy the comfort of tidy, linear operations.

A great number of benefits, then, can accrue to a commander when he supports his main effort with ground and air maneuver units attacking specific objectives in the enemy rear area. And, even when such operations are not under way, the commander will reap some advantage from his demonstrated willingness to undertake them. If he has established a

record of fighting a vigorous deep battle, every element of the enemy force will move more cautiously—every incident behind the lines will trigger alarms. Enemy movements will require more time, more reconnaissance, and the dedication of considerable amounts of force to rear area protection.

The size and mission of the maneuver force will differ between operations. Like other forms of deep attack, the employment of maneuver units against high-value targets requires originality and cannot be reduced to a formula.

The forces involved can range widely in size and type. Attack helicopter units can move over indirect, lightly guarded approaches to strike well-defined targets in the enemy rear. Armored and mechanized forces can sweep the enemy rear by penetrating forward forces or striking from bypassed “hide” positions. Light infantry forces can infiltrate by ground or air to block critical avenues of movement or attack vulnerable targets.

Guerrilla forces, small combat patrols, and stay-behind observation posts contribute to the deep battle no matter how it is fought. They can support the actions of larger maneuver forces; assist them in moving or landing; provide timely intelligence, direct fires, and air strikes; and deceive the enemy as to the location, size, and intention of the main force. These are important activities which assist the conduct of the deep battle on the ground. For purposes of this discussion, however, they are not treated as maneuver operations themselves.

Attack Helicopter Units

The fastest, but most temporary, intervention in the enemy rear can be accomplished by attack helicopter units. Fighting as companies or battalions, attack helicopters have the range, speed, and killing power to strike enemy reserves, artillery, and convoys very effectively. When employed as part of a joint air attack team with Air Force aircraft, their effectiveness will be even greater.

Normally, such operations would be staged from forward arming and refueling points (FARPs) located near the area of the main battle. Penetration of enemy-occupied territory will often require a deliberate operation to suppress enemy air defenses. Air scouts would reconnoiter routes parallel to the enemy’s direction of movement, and attack helicopters would follow swiftly once such routes had been checked.⁵ Contour flying would be used except in areas of greatest danger where nap-of-the-earth flying might be necessary. Ordinarily, the operating range of attack helicopter units would permit penetrations of up to about forty-five kilometers and missions of about two hours’ duration.⁶

Such a radius of action would enable attack helicopters to reach as far back as enemy division reserves or second-echelon regiments. Because of their vulnerability to defended positions, attack helicopter units would be most effective when firing at long range from ambush sites against moving, undeployed enemy forces. Their missile fires, coming from areas inaccessible to ground forces, could destroy enough armored vehicles to require great care by the enemy in moving his reserves. Gun and rocket fires could destroy command vehicles, trucks, and exposed FARPs and supply dumps. Helicopters might also carry jammers into the enemy rear to complicate the communications of division and army headquarters at critical junctures.

More deliberately planned incursions into the enemy rear could extend the range of attack helicopters. Small airmobile FARPs might be flown into the area behind the attack helicopters and set up briefly in forest clearings, marshes, or sandy areas. Like other combat units, attack helicopter companies or platoons might even be left behind in scattered, remote landing zones for attacks on the enemy rear the following day. Such risks might be acceptable if intelligence could promise a fair likelihood of hitting an important reserve force or command post.

Air passage points, prearranged routes and recognition signals, suppression of enemy air defenses, rigorous airspace management, and good communications are all necessary for such operations. The results of such raids could be highly significant to the main effort. They could produce excellent, fresh intelligence, considerable enemy losses, and hours of confusion in the enemy rear.

Ground Forces

Although aerial raids by joint air attack teams of helicopters and Air Force fighters or the actions of attack helicopters alone might be of great use, the cooperation of attack helicopter units with friendly forces on the ground would be even more profitable. These forces could be either mobile or stationary.

Mobile forces would be tank-heavy in most cases. Their size would vary more broadly than in the case of attack helicopter units. Division commanders might find it feasible to send either battalions or entire brigades behind the enemy's main force in some circumstances. Or they might be ordered to move their whole divisions into the depths of the corps' area of influence to block the approach of reinforcements or prevent the escape of enemy units from the battle in progress.

Mobile units can create havoc in the enemy rear. They can interdict routes, destroy artillery, disrupt movement of reserves and supplies, and scout out air defenses. Their speed and unpredictable movements magnify their importance to the enemy and may even distract him completely from other battles. Benjamin H. Grierson's cavalry raid of 1863 succeeded spectacularly in diverting attention from Ulysses S. Grant's movement of his army to the south of Vicksburg. General Ariel Sharon's thrust over the Suez Canal in 1973 created great disorder and gave the Israeli air force access to deep targets by opening a channel through Egyptian air defense.

Of course, such daring thrusts can also go wrong. J. E. B. Stuart's raiding cost the Army of Northern Virginia dearly in the Gettysburg Campaign, and the Hammelburg raid produced nothing but casualties and criticism for Third Army. Above all, the deep battle, whether fought by fire alone or fire and maneuver jointly *must* make a direct contribution to the operational or tactical objective of the command.

A mechanized force can fight in the enemy rear in a number of ways. It can fight its way into the area over unused approaches, exploit a small penetration made by another force, infiltrate in small units, or be left behind as a friendly defending force withdraws. Periods of limited visibility also offer opportunities to introduce forces behind the enemy's leading echelon.

Once behind the leading enemy echelon, the maneuver force may sweep through an area of known enemy weakness, seize a position which disrupts the enemy's dispositions, or mount an attack on a specific, precisely located target. The tactics of the tank sweep, raid, and deliberate attack can all be applied in the deep battle.

Advantages and Disadvantages

What differs is reliance on long-range sensors to spot targets in depth and warn the deep battle force of the approach of enemy forces and the use of long-range systems of fire support. While a division or regiment can bring along some accompanying artillery, it will have to operate with less artillery than normal. It will also have to make more use of long-range weapons from missiles to battlefield air interdiction.

The division or regiment will also have to cope with a different enemy situation. The enemy will be less capable of massing field artillery in actions far behind the forward line of his own troops. But his airpower will be less affected by friendly air defenses, and his radio-electronic combat efforts may make external communications difficult much of the time. In such circumstances, the maneuver force might well have to avoid movement in the

daytime and restrict its attack to periods of limited visibility. Communications will certainly have to be minimized and planned carefully.

By the same token, the force will enjoy peculiar advantages. Its target formations will have less artillery and will rarely be fully deployed. It will be a poor nuclear target for the enemy since it will normally be in the neighborhood of enemy units, command posts, and logistic installations. And its own capacity to conduct effective electronic warfare will be very strong if it is specifically equipped.

A raiding force will enjoy the advantages of surprise and security through speed. It should hit its objective as quickly and as hard as possible and then withdraw. A force conducting a sweep will also rely on speed and surprise. But, since its operation in the deep battle area will be longer, it will have to avoid traps by altering its direction of movement irregularly and by conducting active reconnaissance. Both raiding forces and units conducting sweeps in great depth should make the greatest possible use of nuclear or chemical weapons, scatterable mines, atomic demolition munitions, and air-delivered weapons to effect the fastest, most extensive damage possible and to protect their own flanks and rear.

The most dangerous phase of a deep battle operation for mechanized forces may be in re-entering the friendly area. They will need a selection of coordinated passage points wide enough to fit several likely return situations. Coordination of fires and recognition will be complicated by electronic warfare and the confusion of battle. In almost all cases, it will be preferable for the unit to pass through friendly positions in a quiet sector. When that is impossible, it may be desirable for the unit to establish a hasty perimeter defense just beyond friendly positions and be recovered by linkup with an attacking force from the main battle area.

Either light or mechanized forces may be used to seize and hold areas in the area of interest. By pushing ahead of an attack or striking out during a defense, deep battle maneuver forces can either secure critical terrain (defiles, heights, river crossings, communications centers) or establish themselves in an area of operations behind the enemy.

Seizing vital ground will most often be a short-term operation conducted to assure the continued progress of an attack (as in the Israeli seizure of the Mitla Pass in 1967) or to create a counteroffensive opportunity for forces that are defending. Light forces can be left near the objective during the enemy attack or may infiltrate or be flown in to take the position. Mechanized forces can mount attacks to take such ground.

Once in possession of the objective, a force deep in the area of influence can expect to receive heavy pressure.⁷ It must, therefore, have time to prepare positions and must carry a large amount of ammunition. If the attack fails to achieve surprise, then it will most likely fail altogether. Provisions must be made for relief or abandonment of such a position within a relatively short period of time.

An alternative approach would be to establish an area of operations in the area of influence by ground attack, infiltration, or by leaving forces behind. In this case, the maneuver force—light or heavy—would have the freedom to move off its principal positions when the enemy massed enough strength to defeat it. Once the enemy disperses or moves his force through the area, however, the interdicting force would block the approach again (not from the same position, ideally) closing it to all but large combat units and requiring the permanent diversion of large forces to the area in order to retain its use. Obviously, this tactic would only make sense in cases where the enemy's diversion of troops would result in a marked advantage for friendly forces in the main battle.

Nothing said here is intended to dispute the need for, or potential effectiveness of, deep attack by fire or air interdiction. What is suggested is that, when ground attack of enemy forces in depth is practical, it can enhance the effect of fire appreciably and can cause serious problems for the enemy. When deep attack by fire alone is the only method possible, or when the commander's goals in the deep battle can be attained by long-range firepower by itself, deep attack solely by fire can make a great difference in the battle.

Like other forms of deep attack, the use of maneuver units in the outer reaches of the area of influence should be based on good intelligence and calculated to do the greatest damage possible by striking the targets of most value to the enemy. In all cases, it must play a direct part in the operation of the force as a whole. The employment of maneuver units in the deep battle is obviously a high-risk undertaking. It will never become routine. But, when it is done—or even attempted—it can have a disproportionately strong effect on a battle or campaign.

About the Author (from the 1982 article)

Lt. Col. L. D. Holder is a doctrine writer with the Department of Tactics, US Army Command and General Staff College (USACGSC). He received a BA from Texas A & M University, an MA from Harvard Uni-

versity, and is a graduate of the USACGSC. He has commanded troops in Germany and Vietnam and served as S3, 2nd Armored Cavalry Regiment. He was co-author of “New Doctrine for the Defense” which appeared in the March 1981 *Military Review*.

Notes

1. Most discussions of deep attack use Soviet-style echelonment as a rationale for the tactic. While it is true that Soviet doctrine offers opportunities for defensive interdiction, the practice should not be limited to use against armies which practice warfare on the Soviet model. Almost all armies echelon forces in depth whether attacking or defending. Deep attacks can be used profitably against the reserves, artillery, logistics units, and combat service support facilities of any deployed force.

2. Deep attack, as part of tactical and operational planning, is new only in its separation from other aspects of battle in some of the techniques proposed for its implementation and in the lower levels of command expected to execute it. The principle has been applied wherever action in the enemy rear has been coordinated with tactical actions against the main enemy force. Good modern examples can be found in the Israeli seizure of the Mitla Pass to cut off the Egyptian Army in 1967 and in First Army's isolation of the Cobra breakout area by systematic air attacks of flanking bridges and rail lines. The attack of the enemy rear in the Nancy salient in September 1944 by Combat Command A, 4th Infantry Division is an excellent illustration of a smaller unit's use of the tactic.

3. General Donn A. Starry, "Extending the Battlefield," *Military Review* 62, no. 3 (March 1981); and Lt. Gen. William R. Richardson, "Winning on the Extended Battlefield," *Army* (June 1981).

4. Starry. The role of firepower is also stressed in many of the conceptual papers dealing with deep attack because so much of the pioneering work on the concept was done by the US Army Field Artillery School in Oklahoma. Much of the fresh thinking in non-linear warfare originated with Fort Sill's systematic study of enemy forces in depth, the uses of modern sensors, and the need for longer range field artillery systems.

5. Brig. Gen. Robert E. Wagner describes an operational technique for deep attack in practice in Europe today in *Dragoon Training Notes*, Predictable Battlefield Air Interdiction Targeting System Number 12 and the Air Cavalry Probe, Number 13, Nuremberg, Germany, 1981.

6. Maj. Rodney L. Sigle, "The Joint Air Attack Teams in the Deep Battle" (unpublished manuscript, Fort Leavenworth, KS, 1981); and Maj. William M. Durbin, "Attack Helicopters in Support of the Extended Battle" (unpublished manuscript, Fort Leavenworth, KS, 1981).

7. John Masters, *The Road Past Mandalay* (New York: Bantam Books, 1979) gives an excellent account of the Chindits establishment of an interdicting strongpoint in support of Lt. Gen. Joseph W. Stilwell's operations in Burma and of the desperate battle that followed. The experiences of the airborne divisions in Operation Market Garden and the defense of Bastogne also offer insights to the use of strongpoints in depth and the nature of combat around them.

Chapter 8

A Look at Deep Operations: The Option of Deep Maneuver

Maj. David C. Mock

The idea of interdicting lines of communications, restricting the employment of reserve forces, destroying supply bases, or cutting off routes of withdrawal has been the object of deep operations throughout the history of modern warfare.

This paper seeks to address the implications of deep operations doctrine in regard to maneuver capability. It begins by exploring the concept of deep operations through the analysis of military theorists like Carl von Clausewitz, J. F. C. Fuller, B. H. Liddell Hart, Donn Starry, and Richard Simpkin. Next, it validates the deep operations concept by examining the theory's implementation by the Germans in Russia, 1941; the US 4th Armored Division in Western Europe, 1944; and more recently by the Israelis in the Sinai, 1967.

Finally, this study reviews the evolution of contemporary deep operations doctrine. It explores the dynamic balance between firepower and maneuver and how the nature of battle continues to change as each takes the dominant role. The concept of deep operations is still valid in contemporary warfare. However, at present we are relying on technology to provide a firepower solution to deep operations at the expense of maneuver. This firepower solution provides the enemy with a one dimensional, relatively simple problem to solve. The paper concludes that success on the modern battlefield will come only from a balanced approach of fires and maneuver in the deep battle.

In 1982, the US Army adopted AirLand Battle as its warfighting doctrine. The new doctrine was a major departure from the 1976 version in that it defined the modern battlefield not just as a single battle fought by troops at the FLOT (front line of troops) but one that would be fought in depth, both ours and the enemy's, thus restoring concepts that have long been part of our military heritage. The battlefield envisioned by the AirLand Battle concept consists of three interrelated battles: close (the battle at the FLOT), rear (operations behind the FLOT), and deep (operations

This chapter is a reprint of Maj. David C. Mock, "A Look at Deep Operations: The Option of Deep Maneuver" (thesis, School of Advanced Military Studies, US Army Command and General Staff College, Fort Leavenworth, KS, 31 December 1987).

in the enemy rear). As the title states, the scope of this paper is deep operations at the tactical level. To use a common frame of reference, Field Manual (FM) 100-5 defines deep operations and their purpose as:

Activities directed against enemy forces not in contact designed to influence the conditions in which future close operations will be conducted. . . . At the tactical level, deep operations are designed to shape the battlefield to assure advantage in subsequent engagements.¹

This concept of deep battle is not a revolutionary one. Nor is it new to the American way of war. The results of interdicting lines of communication, delaying or prohibiting the employment of additional forces into the battle, destroying bases of supply, severing routes of withdrawal, and capturing or destroying command and control facilities have ensured the success of numerous military operations. Historically, operations in the enemy's rear have multiplied the effects of defeat, causing the collapse of the entire enemy force. In short, leverage gained by attacking the enemy in his rear versus applying that same force against his front can yield a greater result. Or as Carl von Clausewitz said, "the effect of an action on the rear or flanks will not in itself multiply our forces. Rather it will raise their potential to a higher power."²

The means to conduct deep operations today are much more sophisticated than with armies of the past, but the purpose is still the same. The current US Army doctrine sums up the concept as:

The object of all operations is to impose our will upon the enemy to achieve our purposes. To do this we must throw the enemy off balance with a powerful blow from an unexpected direction. . . . The best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth, and thus most rapidly and economically accomplish the mission.³

As currently stated in Field Circular (FC) 100-15-1, *Corps Deep Operations*, the means to execute deep operations are one of the elements of the "Operational Triad": Fires, C2CM (command and control counter measures), and Maneuver.⁴ FM 100-5 explains the use of these elements in deep operations as:

The primary assets for deep attack are aerial, artillery, and missile weapons. However, conventional and unconventional ground and air maneuver units can also interdict enemy movement and neutralize key facilities in depth.⁵

The doctrine makes the statement that fires delivered air (Battlefield Air Interdiction at the tactical level) and artillery are the preferred method of fighting the deep battle while the use of ground or air (attack helicopters) maneuver forces are the less preferred. If this is the case, why is it so? Are the effects of fires today such that a maneuver force is no longer a practical solution to deep operations? Has the design of maneuver forces made them unwieldy if they are of sufficient size to be a credible threat? Or is it that the necessary coordination for deep maneuver by either ground or air units make that option too difficult when compared to deep fires? Perhaps it could be that the American way of war has habitually sought a firepower oriented doctrine?

This paper seeks to address the implications of deep operations doctrine in regard to maneuver capability. To answer the question the paper looks into the classic and contemporary theory of deep operations through an examination of some important figures in the development of American doctrine. It then validates the theory through an examination of the historical use of deep operations. Finally, the paper concludes with an analysis of some doctrinal voids and possible considerations for deep operations for maneuver forces.

Theory and History of Deep Operations

Deep Operations Theory

An army's fundamental doctrine is the condensed expression of its approach to fighting campaigns, major operations, battles, and engagements. Tactics, techniques, procedures, organizations, support structure, equipment, and training must all derive from it. It, must be rooted in time tested theories and principles, yet forward-looking and adaptable to changing technologies, threats, and missions.⁶

FM 100-5, *Operations*, is the US Army's warfighting doctrine. It is rooted in the theories of classical and contemporary writers whose concepts have been tested in warfare over the years. At the same time it applies current and future technologies to the conduct of war.

Understanding the contemporary doctrine as it addresses deep operations requires the examination of its particular foundation in classical and contemporary theory. To do this requires a review of some classical theorists, such as Carl von Clausewitz, J. F. C. Fuller, B. H. Liddell Hart, and a few contemporary ones, like Generals Donn Starry and Richard Simpinkin.

Through his study and experience in war, Clausewitz understood that the battlefield was not linear. He knew the effect, in both the moral and physical dimension, that deep operations played in the conduct of successful operations. He addresses the effect with the statement:

The risk of having to fight on two fronts, and even the greater risk of finding one's retreat cut off, tend to paralyze movement and the ability to resist and so affect the balance between victory and defeat. In the case of defeat, they increase the losses and can raise them to their very limit—to annihilation. A threat to the rear can, therefore, make a defeat more probable, as well as more decisive.⁷

In his time, the cavalry arm had the greatest mobility differential; therefore, they were normally the reserve. They could be committed to the fight just as a reserve would be today by either applying them directly to the nose of the enemy or to his flanks or rear. The cavalry's objective would be to cut the lines of communication, destroy the bases of supply, block the withdrawal of enemy forces, or interdict uncommitted forces enroute to influence the main battle. Of the two possible applications, Clausewitz is quite clear on the most effective:

So far we have treated rapid reinforcement of the losing side as a simple addition of strength, with support coming up from the rear, which is normally what happens. But an entirely different situation arises when the reinforcements attack the enemy's flank or rear. . . . In most cases reinforcements are much more effective when approaching the enemy from the flank or rear, just as a long handle gives greater leverage. In that way it is possible to restore an engagement with a force that would have been insufficient if used against the front.⁸

Lines of communication have two functions according to Clausewitz. They are a source of supply and a route of withdrawal.⁹ If the aim of the deep operation is to cut the lines of communication, then there may be two objectives for the operation as well:

It may aim at disrupting, or cutting communications, causing the enemy to wither and die, and thus be forced to retreat; or it may aim at cutting off the retreat itself.¹⁰

He adds that in regard to the first objective, the manner in which modern armies are supplied, it may take time for the effect to be significant, and in regards to the second objective, a breakthrough is virtually certain with disciplined troops.

The mission of the reserve may not always require the destruction of the enemy force, the disruption of his lines of communication, or the interdiction of his reserves to have an effect on the action at the main battle. The threat of the reserve force being used against an enemy's vulnerability is sufficient at times to draw forces away from the main battle to protect that vulnerability. Since in war a clear picture of the enemy's intention or the size of his force is a rarity, the use of forces to draw the enemy away from his main focus can be used quite effectively. Clausewitz calls this a diversion.

Clausewitz states that the effect of a force applied against the enemy's rear has a greater potential than one applied to his front, but he also understood that the risk is potentially higher as well. He cautions that:

One should particularly bear in mind the principle stated at the start, namely, that troops used in the enemy's rear cannot be used against his front; that is to say, that the effect of an action on the rear or flanks will not in itself multiply our forces. Rather it will raise potential to a higher power—higher to possible success, but also higher to possible danger.¹¹

Accurate and timely intelligence is essential for the success of deep operations. Aggressive reconnaissance providing a clear picture of the enemy's rear area is a must for the survivability of the deep operation's force. Modern technology is working to provide that capability for without it, the risk to the force in the enemy rear is high. Clausewitz, always wary of intelligence, advises us to the risk of deep operations without accurate intelligence:

Remember that both sides fumble in the dark at all times. One will quickly realize that a party sent past the enemy's wing to raid his rear is like a man in a dark room with a gang of enemies. They will get him in the end. The same fate awaits the raiders.¹²

Clausewitz perceived the purpose and objectives of deep operations. He knew the potential benefits of a deep operation versus a frontal operation, and he appreciated the risks associated with sending a force into the enemy rear. Recognizing which objectives are worth the risks and when to take those risks is a difficult condition to establish.

A more recent theorist, J. F. C. Fuller, also addresses deep operations as a fundamental element of warfare. He realized that with the advent of the gas engine there would be greater mobility and capability to conduct operations in the enemy's rear. Fuller states that mechanization will make it "easier to turn the flanks of a hostile force and attack it in the rear."¹³ He

logically continues that if the gas engine is the key to mobility, fuel must be a critical element. An additional aim of deep operations will be the destruction or capture of the enemy's bases of supply.

Fuller's experiences and observations in the First World War demonstrated to him the value of the tank and the airplane. Looking to the future, he prophesied that:

It is the overwhelming blow which above all others paralyzes an enemy's will, and in the future the object will undoubtedly be simultaneously to strike such a blow on the ground and the air.¹⁴

Although Fuller was not specifically addressing deep operations with this statement, the implications for deep operations are quite evident. He does make it quite clear, however, that the main effort of warfare takes shape in rear operations where the payoff is greatest:

The frontal threat and the frontal holding attack are quite different operations. The object of the first is to compel the enemy to assume the defensive, and of the second to force him to maintain it; in other words, to pin him to a locality. Once this is accomplished, the true attack takes the form of a flank or rear maneuver.¹⁵

A contemporary of Fuller was B. H. Liddell Hart. A proponent of maneuver, he saw that mechanization would again even the balance between firepower and maneuver which had been so radically upset in WWI. Liddell Hart believed that mechanization of armies would change the nature of battle in that the reliance on lines of communication for supplies, fuel, repair parts, and ammunition would make the enemy rear area the "Achilles' heel" of his operation. The destruction of the enemy's supply lines would influence the outcome of battle with at least the same effect as the destruction of his combat units. Supply lines being a more vulnerable target would exact a lesser cost than the destruction of forces at the front. Liddell Hart gives us some advice on deciding the depth and thus the object of our deep attack:

In the planning of any stroke at the enemy's communications, either by maneuver round his flank or by rapid penetration of a breach in his front, the question will arise as to the most effective point, of aim—whether it should be directed against the immediate rear of the opposing force, or further back. . . . In general, the nearer to the force that the cut is made, the more immediate the effect, the nearer to the base the greater the effect. In either case, the effect becomes much greater and more quickly felt if made

against a force that is in motion, and in course of carrying out an operation, than against a force that is stationary.¹⁶

Liddell Hart also makes the case that the effect is not just physical. Although the destruction of forces or supplies in the rear has a physical effect, it has a psychological effect as well. Like Clausewitz, Liddell Hart believes that it will affect the moral fiber of the troops and the commander. The depth of the attack is what makes the difference on where the effect has the most influence:

A further consideration is that while a stroke close in rear of the enemy force may have an effect more on the minds of enemy troops, a stroke far back tends to have more effect on the mind of the enemy commander.¹⁷

The essence of tactics for Liddell Hart was to attack the enemy in two directions simultaneously, so while fighting in one direction the enemy was vulnerable in the other. The created dilemma would make the enemy strong in one place while vulnerable in another, thus being weaker all around. In either case, the enemy's strength could not be concentrated or focused on just one fight at a time:

While one limb of the force fixes the enemy, pinning him to the ground and absorbing his attention and reserves, the other limb strikes at a vulnerable and exposed point—usually the flank or line of retreat and communications in war.¹⁸

Technology has changed the nature of warfare since the time of Clausewitz, Fuller, and Liddell Hart. That change is most apparent in the ever dynamic balance between firepower and maneuver. Although the notion and purpose of deep operations have remained the same, the means to strike deep into the enemy's rear have changed through technological innovation. This same innovation tilts the scales first toward firepower then to maneuver and back. Contemporary theorists like Generals Richard Simpkin and Donn Starry take the concepts of deep operations and apply them to the modern and future battlefields with an eye to this constantly changing balance.

Unlike their predecessors whose concepts were of a general nature, the contemporary theorists, specifically Starry and Simpkin, address a particular theater and enemy. This makes great sense because today our most serious threat is from the Soviet Union, and logically our doctrine should focus on him.

General Starry's concepts were instrumental in reorienting the US Army from the focus on airmobile warfare in Viet Nam to the contemporary threat and battle in Europe. He addresses deep operations as a requirement for victory, but does it with a slight modification from the classical approach. He specifically states that the need for deep attack emerges from the nature of our potential enemies:

What is important is that superiority in numbers permits him to keep a significant portion of his force out of the fight with freedom to commit it either to overwhelm or to bypass the friendly force. The existence of these follow-on echelons gives the enemy a strong grip on the initiative which we must wrest from him and then retain in order to win.¹⁹

General Starry's concept of deep operations is designed to control the tempo of the close battle by controlling the rate the enemy can introduce his forces into the fight. Interdicting the enemy's uncommitted echelons before they arrive to influence the main battle will create opportunities to seize the initiative from him. General Starry's vision for the structure of the US Army is based on the essential need for deep operations.

Like General Starry, General Richard Simpkin sees the aim (in the present) of deep operations as the disruption of the enemy's uncommitted forces to throw him off of his plan, thus, creating conditions for friendly forces to seize the initiative. He extends the notion of deep operations into the future with an eye on technology that increases the effects of future munitions to do more than delay and disrupt but destroy as well. His concept of "interchangeability" says that in the future, the effects of fires and ground forces may be so similar that deep operations can be conducted by either fire or maneuver. His concept of deep operations is not focused on a specific technology or a single system. Instead, Simpkin proposes alternatives for the future deep operation.

Historical Examples of Deep Operations

The preceding military theorists developed the concepts of deep operations from analysis of historical examples. While there are numerous examples of deep operations, ancient and modern, this paper uses three recent historical experiences for illumination. The first example of a tactical deep operation occurred in 1942 with the German Army in Russia.

By August 1941, the German offensive had reached a temporary pause with a rather large salient protruding into the German lines on the left of the German Ninth Army.²⁰ The salient extended west as far as Velikiye Luki, which was held by the Russians. Aerial reconnaissance veri-

fied a large Soviet buildup with the expected intention of cutting into the rear of the Ninth Army.

Realizing the Soviet intention, the Germans decided to strike first. Their mission was to reduce the forces in the salient. The operation began on 22 August with an attack by three infantry divisions on the southern shoulder of the salient to force a penetration. Upon breakthrough two Panzer divisions, the 20th Panzer Division on the left and the 19th Panzer Division on the right, moved rapidly through the penetration.

The 19th Panzer was the main effort and had a good road network to support its move, while the 20th guarded its left flank. The objective for the 19th was to cut the Soviet lines of communication and link up with the XXIIIth Corps about forty miles away.²¹ Because of poor terrain, the 20th would not be able to keep pace with the 19th. In essence, the 19th Panzer would be alone for the operation.

It was obvious to the division commander that security could only be maintained by speed and constant movement. He organized the division with an advanced guard consisting of a panzer regiment, an armored artillery unit, and a collection of engineer and antitank detachments. The main body was organized into two task forces. The first consisted of an armored infantry regiment, two armored artillery battalions, an engineer battalion, and various support units. The second was composed of an armored infantry regiment, an artillery battalion, a rocket launcher battalion, and various support units. The reconnaissance battalion was task-organized with the attachment of the antitank company to provide reconnaissance and security.²²

The reconnaissance task force was positioned forward with the breakthrough divisions. When the penetration was sufficient (about 1200 hours), the 19th Panzer Division launched into the Soviet rear. As it did so, it was joined by Luftwaffe aircraft that provided early warning and close air support.

By 1700 hours, 19th Panzer had reached Kunya, thus cutting the rail line to Velikiye Luki. One task force from the main body was ordered to cover the left flank (southwest) of the division as it moved northward from Kunya to Tabory while the reconnaissance battalion guarded the right flank. Moving very quickly, the lead elements of the division entered Tabory by 1800 hours and captured intact a railroad bridge and a road bridge over the Kunya River. However, these were not sufficient to support the movement of large vehicles. The bridgehead was expanded west of the river, and the division engineers were ordered to build a bridge for the division's heavy vehicles. This situation forced the halt of the advance for

the day, and the division went into a hasty defense in anticipation of Soviet counterattacks that night.

The division commander planned to continue the attack as soon as the bridge was constructed and to link up with XXIII Corps at Velikiye Luki that day, thus completing the encirclement of the Soviet force. The division was not able to cross until around 1500 hours, making the linkup that day impossible. After crossing the bridge, however, they encountered some resistance. They routed one formation, captured another, and destroyed elements of a third, to include some tank and antitank forces.

During the day, aerial reconnaissance had spotted a large formation of Soviet troops moving toward the northwest. At about 0100 hours, the Soviets launched a large-scale attack against the 19th Panzer. The fighting was fierce and costly to both sides, but in the end the Soviets were repulsed.

The Germans again moved toward Velikiye Luki the following day. The Soviets continued their effort to break out, thus delaying the linkup between 19th Panzer and XXIII Corps. Finally, early on the 25th of August after three and a half days of fighting, the linkup was made. Following two more days of fighting, the salient was reduced. The Germans had destroyed or captured eight divisions, ending the threat to Ninth Army.

In this example, the German forces were able to seize the initiative from the enemy through the use of a deep operation. The force was organized and commanded for a rapid advance against the Soviet rear. Reconnaissance from the air and ground were key to the success. A close cooperation existed between the air and ground units.

The presence of the Panzer division in the enemy rear had a physical and psychological effect and resulted in the reduction of a superior force. The application of a numerically inferior force against the enemy's rear was a risky operation, but had a much greater payoff than if it had been applied to the nose of the penetration.

A classic American example of deep operations is that of the 4th Armored Division at Nancy, France, September 1944. The division, part of the XII Corps, had participated in the race across France and by September had taken to heart and proven the doctrine of FM 17-100.²³

The armored division is organized primarily to perform missions that require great mobility and firepower. It is given decisive missions. It is capable of engaging in most forms of combat, but its primary role is in offensive operations against hostile rear areas.²⁴

“As a group, the division believed that the 4th’s proper place was deep in the enemy rear.”²⁵

During its fight across Europe, the 4th Armored Division had perfected the organization and procedures that would ensure the success of its engagements. Through experience, a close cooperation had developed with the XIX Army Air Force that would provide the 4th Armored Division with responsive reconnaissance surveillance and target acquisition as well as effective close air support and battlefield air interdiction. That close air-ground teamwork was instrumental in guiding the division around enemy strong points and into key areas in the enemy rear.

By 31 August, the division had crossed the Meuse River so quickly that the defenders were not able to destroy the bridges. A gasoline shortage soon slowed and finally stopped its drive. However, within the week XII Corps had stockpiled enough fuel to order an attack by three divisions (the 80th Infantry, the 35th Infantry, and the 4th Armored) to cross the Moselle and continue the pursuit. The final XII Corps plan ordered the 35th and the 4th AD (-) to cross the Moselle south of Nancy while the 80th and Combat Command A (CCA) of the 4th were to cross north of the city.

Poor roads and enemy resistance slowed the efforts in the south. In order to maintain the initiative, Division Commander Maj. Gen. “P” Wood shifted the main effort of the 4th Division to CCA north of Nancy.

CCA, consisting of a reconnaissance troop, a tank battalion, an armored infantry battalion, an infantry battalion (borrowed from the 80th Division), three artillery battalions, and a reinforced engineer battalion, crossed the river before daylight on 13 September over a bridgehead secured by the 80th Division.²⁶ “Clarke’s [Col. Bruce C. Clarke, commander CCA, 4th AD] mission was to execute a deep attack, with an objective for the day . . . some twenty miles distant.”²⁷

The formation was organized with a tank-heavy task force leading, followed by an infantry-heavy task force. The rear included the engineers, infantry, and trains. CCA carried enough supplies for seven days of independent operations.

The first day of the operation met with little resistance as CCA was now in the enemy rear. By evening it had reached its objective, the high ground near Chateau-Salins about twenty miles in the enemy rear. The cost to the enemy was 354 prisoners, 2 tanks, 85 vehicles, and 5 guns. CCA had only thirteen dead and sixteen wounded.²⁸ CCA occupied a defensive position that night waiting for its rear to catch up and by morning was supplied and prepared to continue its attack. CCA was to bypass Cha-

teau-Salins and continue to Arracourt, cutting the German lines of communication to Nancy.

By the end of the second day of operations, CCA had cut the lines of communication to Nancy by occupying a blocking position near Arracourt. In the process it had captured an additional 400 POWs. Twenty-six armored vehicles and 136 other vehicles were destroyed along with ten 88-mm guns. CCA had sustained a total of thirty-three casualties and lost two tanks.²⁹

From Arracourt, CCA conducted a bold series of raids and ambushes that captured and killed over one thousand enemy and destroyed almost three hundred vehicles. Its operation east of Nancy was so successful that the 553rd *Volksgrenadier* Division was forced to withdraw from Nancy, leaving it open for occupation by the 35th Division.

The linkup of CCA with CCB was made on 15 September, three and a half days after crossing the Moselle north of Nancy. Like the 19th Panzer Division, organization for combat gave it the flexibility needed for this type of operation. It relied heavily on air units to provide close air support and aerial reconnaissance. Bold leadership, solid operating procedures, and agility allowed the 4th AD to rout the superior force and win a tactical victory.

The physical and psychological effect of the 4th AD in the enemy rear resulted in the enemy's collapse at Nancy. The risk in this case was also high, but by applying the 4th Armored Division to the rear of the enemy versus a frontal assault on the strongpoints around Nancy were again worth the risks.

The third example occurred during the 1967 Arab-Israeli war. The crossroads at Abu Agheila, about thirty miles inside the Egyptian border, controlled the central road across the Sinai. Although tracked vehicles could maneuver in some of the surrounding desert, the choke point at Abu Agheila regulated the flow of follow-on forces and support units. The Egyptian Army had fortified the crossroads and protected it by building a strongpoint six miles to the east at Um Katef. The strongpoint at Um Katef was actually a series of fortified positions tied together by mines, obstacles, and wire. The southern flank was guarded by a battle position at Kusseima. Its purpose was to keep Um Katef from being bypassed from the south. The northern flank was "protected" by terrain that was thought to be impassable by tanks and mechanized infantry. Um Katef was manned by two infantry brigades of the Egyptian 2nd Infantry Division. The third infantry brigade occupied Abu Agheila and Kusseima, while the armored brigade, about ninety tanks, was in reserve near the Ruafa Dam east of Abu Agheila.

The attacking Israeli force was General [Ariel] Sharon's Division consisting of an armored brigade, an infantry brigade, and a paratroop brigade. The division reconnaissance battalion and the armored brigade (-) passed north of the strongpoint at Um Katef and into the rear of the Egyptian position occupying a blocking position north of Abu Agheila to interdict the reserve.

As the armored brigade (-) passed north of Um Katef, the remainder of the brigade moved against the face of the strongpoint to fix the defender's attention. At the same time, the infantry brigade moved north of the strongpoint to attack it from the weak flank. As the infantry assault began, the fixing attack slipped south to complete the envelopment of the strongpoint.

The attack began at night to reduce the effectiveness of the Egyptian artillery. To add surprise, the attack was made from the north over what was considered impassable terrain. To complete the reduction of the strongpoint, Israeli paratroopers assaulted into the artillery positions in the rear of the strongpoint at Um Katef. The effect was complete neutralization of the Egyptian artillery.

As the fight began, the armored brigade (-) moved from its blocking position to Abu Agheila and reduced it. Then it moved east to interdict the Egyptian's armored reserve. Meanwhile, the other tank battalion from the Israeli armored brigade, after flanking the Um Katef position from the south, moved west to intercept the reserve. The two Israeli armored battalions surrounded the reserve as it moved toward Um Katef and by daybreak it was destroyed.

With the neutralization of the Egyptian artillery, the destruction of the reserve, and the attacks against the weak flank, the Egyptians were forced to abandon the positions at Um Katef and Abu Agheila. The result of the operation was the destruction of a major part of the Egyptian 2nd Infantry Division and, more importantly, the opening of the road across the Sinai.³⁰

As in the preceding examples, the organization for combat gave the Israelis the needed flexibility to execute the mission. The force was able to envelop the enemy with armor and air assault troops quickly to reduce the strong point. The combined effects of the air assault and armor force destroying the artillery and reserve with the simultaneous surprise attack on the strong point forced the Egyptians out of the positions. This opened the road across the Sinai.

Contemporary Deep Operations Concept

Current US Army doctrine, FM 100-5, *Operations*, is a synthesis of classical and contemporary military theory verified by analysis of wartime application. Although founded in military theory and history, it reflects the changes that technology has made in the nature of warfare. AirLand Battle doctrine states:

Successful attack will require isolation of the battle area in great depth as well as the defeat of enemy forces in deeply echeloned defensive areas. Successful defense will require early detection of attacking forces, prompt massing of fires, interdiction of follow-on forces, and the containment of large formations by fire and maneuver.³¹

In short, the doctrine acknowledges the theory and history of deep operations. Success in offense and defense is achieved by not only defeating the enemy in the close battle but by simultaneous attack throughout the depth of his force.

As seen by the example of the 4th Armored Division, deep operations have been a part of our military heritage and history. This heritage was applied to fit the nature of the airmobile infantry war in Viet Nam. While we were doing that, however, we lost sight of the threat posed by the Soviet Union in Western Europe. With the withdrawal from South East Asia in the early '70s, attention was refocused on the conventional war against our greatest potential threat in the most dangerous theater, Western Europe. The beginning of the reorientation started with the publishing of the 1976 version of FM 100-5.

By the early 1970s, the army had awakened to the fact that while we were focused on our war in Viet Nam, our major threat, the Soviet Union, had made some very significant changes in the quantity and quality of its military. These substantive changes in Soviet forces, as well as the knowledge that we could not match them in quantity, forced us into seeking a fire-power-based attrition doctrine in which our technological advantages could best be applied. A requirement to interdict uncommitted forces before they entered the battle was recognized, but it was not a maneuver option. Since we were so outnumbered, all maneuver forces were needed to thicken the fight on the FLOT. Despite its shortcomings, the 1976 FM 100-5 began the process that has evolved into the present concepts in our current doctrine.

By the late 1970s, it was realized that "active defense" doctrine was not sufficient to win a war. The army began to reform the doctrine. General Starry's notion of the "extended battlefield" was the genesis of a new

concept on how to fight the threat. He envisioned an interrelationship between the close, deep, and rear battles that was based on the echelonment of Soviet forces. Although terrain in Western Europe has an impact on the disposition of the Soviet Army, it is the precept of momentum as a doctrinal fundamental that mandates the echelonment of Soviet forces. Echelonment allows them to maintain the momentum of their offense by the continuous introduction of fresh forces into the fight, thus eliminating the need for an operational pause. Further, it enables them to keep a large part of their force uncommitted, thereby maintaining a “strong grip on the initiative.” Uninterdicted, the mass and momentum of the Soviet forces would eventually overwhelm the enemy.

To maintain the momentum of such a large force requires the use of precise time schedules and norms. This normative process could be exploited as a vulnerability. General Starry’s concept provided for the interdiction of uncommitted forces, delaying and disrupting their employment and thus forcing the enemy commander off his plan:

The interdiction of enemy forces in their rear areas by tactical air strikes, ground maneuver, and long-range artillery fires was hardly a new idea. What was different in the interdiction challenge facing the Army doctrinal planners of the late 1970s was the situation of Soviet echelonment.³²

A concept was sought that would exploit the vulnerabilities inherent in the Soviet echelonment. This was the foundation of AirLand Battle.

Thus, with the publication of the 1982 FM 100-5, deep attack became an integral part of our doctrine. As General Starry stated, “Deep attack is not a luxury; it is an absolute necessity to winning.”³³ The envisioned goal of deep operations was to create conditions conducive to seizing and maintaining the initiative.

In comparison to the 1976 FM 100-5, the 1982 and 1986 versions have a more balanced approach to the dynamic elements of firepower and maneuver. However, the quantitative edge enjoyed by the Soviets had not narrowed in the interim. The challenge facing the army was how to execute the concept of deep operations while being numerically inferior in conventional ground forces. Even though the doctrine acknowledges a maneuver option, the deep battle is perceived as being fought mainly by fires:

The primary assets for deep attack are aerial, artillery, and missile weapons. However, conventional and unconventional ground and air maneuver units can also interdict enemy movement and neutralize key facilities in depth.³⁴

Our concept of deep operations has been and is still based on the fact that we are numerically disadvantaged in forces and, for some very good reasons, cannot hope to even up the imbalance. Therefore, to make up for that deficit, we rely on technology to produce more lethal firepower. In reality, conventional wisdom sees deep operations as deep fire, either by air or long-range artillery.

But must this be so? Initially, the concept was that deep operations would delay and disrupt the uncommitted forces and isolate the close battle, thereby creating windows of opportunity to seize the initiative. Are we now taking a great leap forward through technology and saying the effects of deep fires can not only delay and disrupt but also destroy as well, and that a maneuver force is no longer a practical solution? Will the purpose of the close battle be only to fix the enemy, while the deep battle destroys him? Is the mobility differential (including speed, agility, and sustainment) necessary to execute a deep operation no longer achievable by ground forces if they are of sufficient size to be a credible threat? Or is it that the necessary coordination for deep maneuver by either ground or air units make that option too difficult when compared to deep fires? Or could it be that the American tradition is that firepower, not maneuver, is the solution?

Contemporary Application of the Deep Operations Concept

The purpose of this paper is not to highlight the capabilities of the various systems and munitions being procured by the army, but to show how technological advances provide a premise for the direction in which we are currently headed. These advances have given firepower the capability to not only delay and disrupt but to destroy the enemy as well. The effects of fires are becoming so lethal and their ranges so deep that they can destroy large portions of the enemy force and key nodes in his command and control structure long before they are committed to battle. Some of the modern systems that offer such capabilities are the Multiple Launch Rocket System (MLRS) and Family of Scatterable Mines (FASCAM). The range of the MLRS covers the entire depth of a Soviet division in contact. Its munitions can delay, disrupt, and destroy uncommitted regiments, command and control nodes, and support facilities.

The fundamental element of this assumed direction is that effects of fires will equal the effects of maneuver. In other words, the “interchangeability” that Richard Simpkin speaks of is fast becoming a technological reality. This great leap in technology changes the historical difference between the effects of fires and maneuver. Up to this point, the effects of fires have been limited in duration and lethality. Previously, the duration was

limited because once the fires had ceased, so had the effect. Fires could destroy or immobilize only if they were direct hits, and they are difficult to get. Conversely, the effects of a maneuver force can be greater as well as more lasting, as we saw in the examples of the 19th Panzer Division, the 4th Armored Division, and Sharon's Division. The force in being in the enemy's rear is a threat as long as it is there. It cannot be ignored. It will not go away.

Modern munitions are seeking to close the gap between the effects of fires and the effects of maneuver. The "extended neutralization" effect of modern and future munitions may in fact do that and render unacceptable the practicality of conducting a deep operation by maneuver. There are two major considerations inherent in maneuver that when compared to the option of fire make it the least preferred solution: the limited number of available maneuver forces and the mobility differential that makes them difficult to maneuver in the enemy rear when sufficiently sized to become a credible threat.

One of the fundamentals of deep maneuver is that the battle at the FLOT must be stabilized before the deep maneuver is executed. Despite Clausewitz's comment that more leverage is gained by applying the reserve to the flanks or rear of the enemy versus thickening the battle at the FLOT, in the situation of being greatly outnumbered, it may take the reserve to stabilize the situation at the FLOT, leaving no option for deep maneuver. Even though the potential payoff for a successful deep maneuver may be high, the relative risk may be unacceptable.

However, if the decision is made to conduct a deep maneuver, that option would not be easy to execute because of the mobility considerations. Although sustainment is not the whole issue of mobility, it is a key element. An example of this logistical concern is the fuel consumption of a current US division. Assuming a normal operating time of twenty hours per day, the fuel requirements for a heavy division would be about 470,000 gallons of diesel, 20,000 gallons of Mogas, and about 72,000 gallons of JP-4.³⁵ This is about one and a half times the fuel hauling capacity of the division for only one day's operation.

If these factors could be resolved, an additional consideration would have to be addressed: the comparative difficulty of coordinating a deep maneuver (ground or air) with that of a deep operation by fire. Whereas a deep fire mission would use relatively simple control measures to regulate deep fires, a deep maneuver by either a ground or air element requires extensive coordination to insert, control, and recover it.

The challenges presented by a shortage of maneuver forces, the difficulty of coordinating a deep maneuver, the mobility of ground maneuver forces, and the survivability of air maneuver forces are formidable. We apparently think technology has provided an alternative to these difficulties, and that the preferred method of conducting deep operation is by fires.

If technology brings us to this position, then indeed the pendulum will have taken a big swing toward firepower, and logic would dictate a larger firepower force at the expense of a smaller maneuver force. The battle at the FLOT would no longer be the main effort but a supporting effort made by the maneuver force to fix the enemy, identify his main effort, and cause him to mass. The main effort would be the deep battle conducted by fire to destroy the enemy.

As always, the balance between firepower and maneuver is a dynamic one. As the pendulum swings toward firepower, the role of maneuver becomes less important. But eventually the pendulum swings back as the technology that brought about a dominance of firepower inevitability provides a counteraction to that technology. The dominance of firepower in World War I, as exemplified by the machine gun and artillery, yielded to maneuver in the next World War with the ascendancy of the airplane and the tank. In short, the pendulum never stops its motion. Centering on a single solution is not the best answer.

However, at present we may be doing that. In comparison, the difficulties associated with deep maneuver and the relative ease with which modern firepower can destroy in depth, it is easy to see why we have focused on a single approach to deep operations. The evidence is in the acquisition and development of modern systems coming into the force. Of these, sophisticated sensors and intelligence collectors and long-range fire systems are preeminent. The current concept for the design of the army is based on a technological solution to the problem of being outnumbered in maneuver forces. As this applies to deep operations, the result is the reliance on an intricate system of collectors tied to a highly lethal system of deep fire weapons. The interaction of these two systems is designed to find and destroy key elements of the enemy before he is committed to influence the deep battle.

The assumption, obviously, is that the vulnerabilities of the system must not be significant. But if technology can produce a system, it can eventually produce a counter to it. Without examining the weaknesses and limitations of firepower, it would appear that firepower is a single, complete solution to deep operations.

The structure of the deep operations system requires an array of sophisticated sensors to be tied into an all source intelligence center. From the all source intelligence center, intelligence is provided to a targeting cell which designates various targets for the firing units. It would be impossible to find and destroy all of the intelligence collectors in a timely manner. It would be difficult to neutralize the dispersed firing systems. It appears the most vulnerable part of the system is the linkage between the intelligence collectors and the firers: the all source intelligence center and the targeting cell. Destruction of this key connection renders the entire system impotent. Removal of the focal point for intelligence collection blinds the deep fires and makes the lethality of modern munitions powerless. If this is the case and we have relied solely on deep fires to win the deep battle and to create the opportunities for seizing the initiative, we have made a grave error.

The answer does not lie in building a single sophisticated system but rather in planning a sophisticated approach to deep operations that gives the enemy a multitude of problems simultaneously. The untried potential of modern firepower is one problem for the enemy. The probability of success is great if the system works as designed. But already we have experienced the concrete effects of synergistic deep operations. History validates this with the examples of the 19th Panzer, the 4th Armored, and Sharon's divisions. This tested and workable solution to deep operations should not be forgotten. The formula for success requires a balanced and synchronized application of artillery and air delivered fires, electronic warfare, deception, and air and ground maneuver.

Doctrinal Implications

The fundamental premise of AirLand Battle lies in seizing and holding the initiative as a key to victory. This doctrine acknowledges three inter-related battles: close, deep, and rear. It affirms the need for a balanced approach in fighting the close and rear battle, but does not endorse it for the deep battle. As General Starry states, the need for deep attack is precipitated by the nature of our potential enemy. The structure and mass of Soviet forces demands the conduct of deep operations to wrest the initiative from him. The deep attack will create the opportunities to seize the initiative. Only by giving the enemy a multitude of diverse and dynamic tactical problems to solve simultaneously in his rear can we ensure the probability of success. A sophisticated and balanced approach to deep operations will be laborious to synchronize and tough to execute but is the only practical solution against an opponent structured like the Soviets.

Tactical considerations such as mission, task organization, synchronization of effort, and tactical passage are not unique to deep operations, but their application to deep operations requires specific attention and needs to be addressed more clearly in the doctrine. The first of these tactical considerations is the mission. If the reserve is given a specific mission to conduct a deep operation, it must be its only mission. It is inconsistent to task a maneuver force to execute a deep operation and then assign it other “be prepared” missions. It becomes a classic case of moving in two directions at the same time with little progress either way. The commander must focus on the one mission. The necessary detailed planning and preparation for the deep operation requires all of his attention.

The next consideration is the task organization of the deep maneuver force. Although the mission will have a significant impact on determining the task organization, there are numerous factors that must be considered. For the deep maneuver force to be a significant threat, it must be about a division in strength and the combat elements should be predominantly armor. The tank heavy force will have a greater degree of protection, higher volume of fire, and relatively large basic load of ammunition.

Artillery accompanying the force should be tailored according to the mission. A consideration brought about by MLRS is that the extended range of the system can provide indirect fire support up to a depth of about twenty to twenty-five kilometers without crossing the FLOT. This decrease in size would increase the overall mobility of the maneuver force by reducing the logistical burden for ammunition and other classes of supply. As technology gives the capability to range deeper with precision, all supporting fires may be shot from the friendly side of the FLOT, thereby reducing the need to have supporting artillery accompany the maneuver force.

As demonstrated by the examples of the 19th Panzer and 4th Armored divisions, success was in part ensured by the cooperation of air and ground forces both focused on the same objective. The air units provided close air support, reconnaissance, and security that increased the freedom of action for the ground force. Today these same effects are achieved by integrating attack helicopters and air cavalry into the formation.

In task-organizing for deep operations, the combat support requirements are somewhat unique. Across the FLOT, the maneuver force will be subjected to the enemy’s close air support. This places the force in a vulnerable position and requires a much heavier proportion of air defense than is organic to the division. After the maneuver force crosses the FLOT, the divisional air defense battalion by itself is not sufficient to cover the

entire maneuver force. To provide the necessary coverage would require at least two ADA battalions.

Intelligence/electronic warfare becomes an even more significant element to the deep maneuver force in that it is essential to the effectiveness and survivability of the force. The intelligence collectors and surveillance systems that determine deep fire targets must be used to guide the maneuver force to its objective or away from threats to its security. It is imperative that the linkage to the corps intelligence center remain unbroken to take advantage of this asset.

Combat service support is a critical issue. There are two alternatives for supporting the maneuver force. If the maneuver force is structured to be self-contained, it will be limited in its endurance and range. The limiter would be Class III first and then Class V. Additional considerations must be given to medical evacuation and other key areas. The other alternative is to keep the lines of communications open to the maneuver force. Although this would increase the endurance and range of the force, the lines of communication may become a vulnerability if they cannot be secured. This vulnerability becomes a liability if the maneuver force has to provide that security.

Another major area for consideration is the tactical passage of the maneuver force. Although a very complicated operation that requires considerable coordination, two key elements must be addressed: positioning and timing. If infantry is used in a deep mission, it can get into the enemy rear by "stay behind," infiltration, or airmobile insertion. For a large armored force, however, a penetration must be made. The concern is where to position the deep maneuver force relative to the breakthrough force. It must be positioned so that it does not interfere with the penetration force or become a lucrative target while massing for the thrust. However, the position must be close enough to pass through the penetration at the proper time. These points only scratch the surface of the complex issues for the tactical passage but are indicative of the doctrinal implications necessary to conduct a deep maneuver,

Synchronization of effort is the fundamental notion behind a balanced approach to deep operations. It implies that the missions and objectives for each of the deep operations systems are focused on producing a single result. The goal of the synchronized approach is to provide the enemy a multitude of diverse tactical problems to solve that will overwhelm his command and control system. While this is a difficult task, it is a practical

solution that will accomplish the goal of the deep operation, create the opportunity to gain, and maintain the initiative.

Conclusion

The notion of deep operations remains a key concept for attaining victory. Technology, as it changes the conduct of warfare, gives us a diverse array of solutions to the problem of how to execute the concept. Historically, maneuver has been the solution for tactical deep operations, but as technology gives us new capabilities the preferred method is moving toward firepower. It is the preferred method because the effects of fires are more lethal and destructive than ever and in theory the effects of fires are approaching the equivalency of the effects of a maneuver force. This key point means that the enemy can be delayed, disrupted, and destroyed in depth without the difficulty, risk, or expense inherent in deep maneuver. The concept is based on the assumption that the vulnerabilities of the targeting/firing system have no significant counter.

If this is the case, the problem we have presented the enemy is one dimensional and simple to solve. This single solution is not the best answer. Only by giving the enemy commander a multitude of problems, simultaneously, will we be able to seize and maintain the initiative. While this requires balance and synchronization of artillery and air-delivered fires, deception, and electronic warfare, above all it means maneuver, the ability to close with and destroy the enemy—even in the deep battle.

Notes

1. Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1986), 19.
2. Carl von Clausewitz, *On War*, eds. Michael Howard and Peter Paret (Princeton, NJ: 1976), 465.
3. Department of the Army, FM 100-5, 14.
4. Department of the Army, Field Circular (FC) 100-15-1, *Corps Deep Operations* (Washington, DC: 1985), 2-15.
5. Department of the Army, FM 100-5, 38.
6. Clausewitz, *On War*, 6.
7. Clausewitz, 233.
8. Clausewitz, 242.
9. Clausewitz, 345.
10. Clausewitz, 346.
11. Clausewitz, 465.
12. Clausewitz, 462.
13. J. F. C. Fuller, *Armoured Warfare* (London: Eyre and Spottiswoode, 1943), 33.
14. Fuller, 37.
15. Fuller, 96.
16. B. H. Liddell Hart, *Strategy* (New York: Frederick A. Praeger, 1954), 331.
17. Liddell Hart, 331.
18. B. H. Liddell Hart, *The Remaking of Modern Armies* (Boston: Little, Brown, 1928), 45.
19. Donn A. Starry, "Extending the Battlefield," *Military Review* 61, no. 3 (March 1981): 34.
20. Historical Division, Headquarters US Army Europe, *Division Operations during the German Campaign in Russia* (1946; repr., Fort Leavenworth, KS: Advanced Military Studies Department, US Army Command and General Staff College, 1984), 33.
21. Historical Division, Headquarters US Army Europe, 35.
22. Historical Division, Headquarters US Army Europe, 35.
23. The title of FM 17-100 was *Armored Command Field Manual, The Armored Division*.
24. US War Department, Field Manual (FM) 17-100, *Armored Command Field Manual, The Armored Division* (Washington, DC: 1944), 2.
25. Christopher R. Gabel, *The 4th Armored Division in the Encirclement of Nancy* (Fort Leavenworth, KS: Combat Studies Institute Press, 1986), 4.
26. Gabel, 12.
27. Gabel, 14.
28. Gabel, 15.
29. Gabel, 16.

30. Trevor N. DuPuy, *Elusive Victory* (Fairfax, VA: Hero Books, 1984), 256–63; and Chaim Herzog, *The Arab Israeli Wars* (New York: Random House, 1982), 158–59.

31. Department of the Army, FM 100-5, 2-3.

32. John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine 1973–1982* (Fort Monroe, VA: US Army Training and Doctrine Command, 1984), 33.

33. Starry, “Extending the Battlefield,” 32.

34. Department of the Army, FM 100-5, 38.

35. The data is computed for an AOE armored division of six M-1 equipped armor battalions and four M-2 equipped infantry battalions. Diesel usage was figured by operating time versus mileage. Ten to eleven hours operating time is approximately equal to one refueling, 585 gallons for an M-1. This figure was determined by personal experience during numerous field exercises and National Training Center observations.

Chapter 9

A Theoretical Perspective of AirLand Battle Doctrine

Maj. Wayne M. Hall

AirLand Battle is the accepted warfighting doctrine of the US Army. However, there is much evidence that many officers do not understand it. This article attempts to provide an interpretation of some of the theoretical and intellectual aspects of the doctrine and suggests a direction for the professional development of the officer corps.

AirLand Battle has been the official doctrine of the US Army for almost four years. Yet, many leaders in the combat units remain lethargic in accepting the doctrine. This is cause for concern.

Several partial explanations for this lethargy are offered. One frequently heard is, “We do not have the equipment to implement AirLand Battle doctrine, let alone time to think on it.” Another goes, “I do not understand the doctrine; besides, understanding doctrine is for colonels and generals,” and “Doctrine takes ten years to permeate the system.” We can accept these explanations if we are willing to gamble that our opponents will not attack within the next six years.

The principal problem in understanding AirLand Battle doctrine, inculcating it into the collective intellect of the officer corps, and preparing our maneuver units to fight using the doctrine remains cerebral. That is, the officer corps understands neither the theoretical nor the intellectual underpinnings of the doctrine. Blame for this rests on the collective intellect of the officer corps. We, as human beings, generally tend to resist change. Without pressures to do so, we often tend to leave interpretation and difficult thinking to “them”—those “smart people” in institutions and think tanks.

While they can be partially blamed for not helping to interpret AirLand Battle doctrine in sufficient depth, the smart people in divisions and corps also deserve some of the blame. At the division and corps levels, the theoretical can be merged with the practical. Thus, the divisions and corps are ideal places to interpret the doctrine in officer professional development seminars, in field training exercises, in command post exercises, and in the numerous small-group interactions occurring daily.

This chapter is a reprint of Maj. Wayne M. Hall, “A Theoretical Perspective of AirLand Battle Doctrine,” *Military Review* 66, no. 3 (March 1986): 32–43.

Without question, the authors of AirLand Battle doctrine developed it with in-depth theoretical and intellectual underpinnings. They had a vision of modern war connecting the present to the past and the future. This intellectual substance dissipated during the consensus-building process of doctrinal development. Yet, the kernel of brilliance contained in AirLand Battle doctrine has the potential to grow and encourage creativity. After all, the doctrine is a compilation of the thoughts of some of the most brilliant men in history.

The challenge, then, is left to us. We are the professionals who are dedicated to being prepared to fight and to win—to help the doctrine mature, to capture and use its inherent power, to infuse our soldiers with its creative brilliance and, perhaps most importantly, to understand, to the greatest extent practicable, the complicated phenomena of war.

AirLand Battle doctrine assumes an intense interaction between two active and intelligent forces. These forces are attempting to defeat each other. In this respect, war is seen as a duel: “War . . . is not the action of a living force upon a lifeless mass . . . but always the collision of two living forces.”¹ This duel occurs at all levels, albeit with varying degrees of intensity and scope.

The doctrine suggests a strong relationship between engagements, battles, and campaigns. It also suggests a strong relationship between tactics, operations, and strategy. In this respect, engagements and battles are not viewed as discrete events. Instead, AirLand Battle doctrine seeks to join the functions of the battlefield to create synergism. This emphasizes the coalescence of several discrete parts to reinforce the strengths of each into a powerful whole. The doctrine calls for achieving synergism among the combined arms to enhance the chance of defeating a quantitatively superior opposing force.

On the other hand, the doctrine recognizes numerous constraints reducing the effectiveness of combined arms synergy. Of critical importance in overcoming these constraints, the operational campaign plan serves as a guide to the activities of combined arms teams at various levels to release their full potential.

To understand the doctrine, one needs to understand the doctrine’s tenets. These tenets are, in turn, linked to the seven imperatives of combat, the principles of war and the theoretical underpinnings of the doctrine. Thus, to fully understand the abstract and inherent intellectual power of the doctrine, one should understand the links between these aspects of the doctrine.

AirLand Battle doctrine describes the way the Army intends to wage war and guides institutional thinking about the conduct of war. From a materiel perspective, the doctrine guides the development of technology to support the concept of war. Field Manual (FM) 100-5, *Operations*:

Deliberately attempts to bring the components of the triad of soldiers, weapons, and doctrine into harmony. It relates today's dynamic technology to today's soldiers and leaders through forward-looking ideas based on time-tested principles. It provides the parameters with which technology should be pursued.²

From a personnel perspective, the doctrine guides both training and education to enable the Army's soldiers to fight and win. The doctrine provides a common conceptual framework in which commanders and staffs at all levels can plan to wage war effectively. This assumes that the Army has an officer corps that *understands* the doctrine well enough to accomplish both tactical and operational goals.

AirLand Battle doctrine identifies the Army's operational concept. Field Manual (FM) 100-5 discusses this as:

The core of its doctrine. It is the way the Army fights its battles and campaigns, including tactics, procedures, organizations, support, equipment, and training. . . . It must also be uniformly known and understood.³

The US Army's operational concept revolves around four main ideas:

- The primary object of all operations is to destroy enemy forces.
- The importance of "securing or retaining the initiative and exercising it aggressively to defeat the enemy" is crucial to success in combat operations.⁴
- The intent of each higher commander must be understood by the entire chain of command.
- The tenets of initiative, depth, agility, and synchronization are important for success.

The Army's operational concept can influence the entire organization with the somewhat abstract but, nonetheless, powerful offensive spirit. Explanation of the concept sets a base-line intellectual tone that must be accepted to understand modern American war. "The full impact of these conditions taken together are difficult to imagine, much less to understand. But their study is imperative."⁵

In almost all conceivable situations in which our principal antagonist is the Soviet Union, US forces will be forced to fight at a significant quantitative disadvantage. We have, at best, a narrow qualitative advantage. The AirLand Battle doctrine has the potential, when fully implemented, to increase this advantage and offer a “tremendous opportunity to exploit the qualitative edge that the NATO alliance should carry into the twenty-first century.”⁶

In the effort to emphasize qualitative superiority over quantitative inferiority, FM 100-5 emphasizes two critical aspects of modern warfare. The doctrine is designed to accentuate the inherent psychological, social, and cognitive strengths of the US soldier. These strengths include using initiative, emphasizing flexibility, capitalizing on mobility, exploiting latent violence, emphasizing the inherent competitiveness of the American psyche, focusing natural aggressiveness, and doing the unexpected. These strengths are summarized by saying the doctrine:

Makes use of all available resources and avoids stereotyped patterns by calling for bold, flexible, offensively oriented defenses organized to meet the requirements of METT [mission, enemy, terrain, and troops].⁷

AirLand Battle doctrine’s complexity compels a quest for superior planning and superior execution. These, in turn, suggest a need for better thinking by our leaders. One authority states:

In execution, the AirLand Battle means nothing more (or less) than fighting “smart” using every element of combat power from psychological operations to nuclear weapons to defeat the enemy.⁸

Superior planning, superior execution, and better thinking are intended to achieve several significant effects, to include:

- Gaining moral ascendancy over our antagonist.
- Gaining a decisive advantage over our antagonists by thinking and acting quicker, thus facilitating, acquiring, and maintaining the initiative.
- Maximizing the use of all human resources and combat assets to achieve combat synergism.

AirLand Battle doctrine has strong links to the theory of both Sun Tzu and Carl von Clausewitz. It refers constantly to its reliance on the principle of war and uses the seven imperatives of combat to bridge the gap between

theory and reality. The strong ties to both theory and the principles of war serve several purposes, to include:

- Providing perspective to better understand the foundations, thus the true meaning of the doctrine.
- Providing a broad conceptual framework in which to solve military problems.
- Providing commonality of understanding.
- Linking the present to the past and providing the vehicle for thinking about the future.
- Providing depth to a somewhat broad and abstract concept.

AirLand Battle doctrine emphatically underscores the offensive. The offensive has a strong psychological effect on soldiers who are in the attack or who are in the defense going over to the offense:

Surprise, concentration, and violence can give the attacker his only significant advantage—the initiative. If the attacker loses the initiative, even temporarily or locally, he will jeopardize the success of the entire operation.⁹

Emphasis on the offensive suggests the quickest and surest way to either destroy or defeat the enemy. “The offense is the decisive form of war, the commander’s only means of attaining a positive goal or of completely destroying an enemy force.”¹⁰ AirLand Battle doctrine suggests the conduct of the offense to achieve well-thought-out ends; it does not emphasize “mindless” attrition.

AirLand Battle doctrine emphasizes the physical and the moral domains of war. This twin thrust of war can be traced primarily to the theory of Clausewitz:

The effects of physical and psychological factors form an organic whole which, unlike a metal alloy, is inseparable by chemical processes. In formulating any rule concerning physical factors, the theorist must bear in mind the part that morale factors may play in it.¹¹

When discussing the physical domain of war, FM 100-5 again borrows heavily from Clausewitz by emphasizing the destruction of enemy forces: “Of all the possible aims in war, the destruction of the enemy’s

armed forces always appears as the highest.”¹² A prominent historian who recently analyzed FM 100-5 confirms this premise (emphasis on destruction) by stating, “The constant use of the word ‘destroy’ is consonant with the interpretation. Even the destruction of the attacker is mentioned as a goal of the defense.”¹³

Successful wars are fought with a sense of coherence that encourages the careful planning of campaigns linked with equally well-planned engagements and battles. Engagements and battles conducted in either isolation or with no purpose are impotent; engagements and battles fought in consonance with a scheme and an overall campaign goal are powerful in respect to having a unified effort.

The inherent violence of the battlefield encourages thinking through the implications on the moral and the physical domains of war. Again, the writings of Clausewitz provide the theoretical underpinnings for this focus as, “Every engagement is a bloody and destructive test of physical and moral strength.”¹⁴ The necessity to think accurately and deeply about combat in this environment poses substantial mental challenges for those planning to implement AirLand Battle doctrine.

While not discussing the concept, per se, the doctrine emphasizes the importance of identifying what the Germans call a *Schwerpunkt*. This suggests the maneuvering of dispersed combat power to achieve a concentration of mass against an enemy vulnerability. One authority states:

Schwerpunkt is the center of gravity or point of principal effort. . . . The movement of a *Schwerpunkt* is a continual seeking for the weak points of resistance, in order to attack them with local superiority.¹⁵

The *Schwerpunkt* concept emphasizes the need for intelligence, mass, maneuver, and initiative—all essential to AirLand Battle doctrine.

AirLand Battle doctrine places equal emphasis on the moral domain of war. This abstract but important aspect of combat involves the intangibles of war, including will, leadership, intuition, esprit, and collective intellect. Initiative is one of the most important intangibles of combat; the side that has the initiative also has momentum. Momentum makes the enemy react. The side with the initiative has a powerful morale advantage in that it infects soldiers with the intangible but powerful notion of positive activeness toward a goal.

A soldier who experienced German World War II blitzkrieg doctrine stated, “Initiative, surprise, and speed—the keys to victory—are able to

compensate on occasions for lack of material superiority and are able to demoralize and disorder the enemy.”¹⁶ Clausewitz further explains the concept of surprise and its relationship with moral ascendancy by stating:

Surprise therefore becomes the means to gain superiority, but because of its psychological effect it should also be considered as an independent element. The two key factors that produce surprise are secrecy and speed.¹⁷

Along with the emphasis that Clausewitz places on the moral domain of war, Sun Tzu also provides theoretical underpinnings. Sun Tzu emphasized attacking the enemy’s plan.¹⁸ He goes on to state, “Therefore, determine the enemy’s plans and you will know which strategy will be successful and which will not.”¹⁹

Sun Tzu suggests the presence of a mental contest between opposing commanders at each level. Each commander attempts to “turn inside his opponent’s decision cycle.” In effect, each commander is attacking the will of his opponent and is also attempting to attack his opponent’s mind.

To attack the mind of the opponent and to cause him to react, FM 100-5 suggests the use of the indirect approach. While Sun Tzu developed this concept, B. H. Liddell Hart resuscitated it in time for the Germans to use it to great advantage in World War II. The indirect approach is “closely related to all problems of the influence of mind upon mind.”²⁰

The notion of the indirect approach is closely related to *Schwerpunkt*, initiative, surprise, and speed. Liddell Hart states that, “Whatever the form, the effect to be sought is the dislocation of the enemy’s mind and disposition.”²¹ AirLand Battle doctrine advocates striking the enemy’s vulnerabilities when least expected with a superior force. Use of the indirect approach helps the commander attack the will of the enemy commander and troops.

AirLand Battle doctrine also emphasizes deception and operations security (OPSEC). These concepts deal with nuance and abstraction, and their true meaning can be seen only when they complement each other to support the commander’s intent. Sun Tzu addresses deception by stating “war is based on deception. Move when it is advantageous and create changes in the situation by dispersal and concentration of force.”²² Sun Tzu also recognizes OPSEC when he states, “The ultimate in disposing one’s troops is to be without ascertainable shape. Then the most penetrating spies cannot pry in nor can the wise lay plans against you.”²³

AirLand Battle doctrine resurrects the operational level of war. The American way of war in the twentieth century has revolved around the concepts of attrition and annihilation. Since the United States usually outnumbered its opponents in human and materiel resources, acceptance of the concepts of attrition and annihilation was natural. Edward N. Luttwak explains this phenomenon by stating:

In the American case historically the goal has been to accelerate the evolution of any conflict with maximum mobilization of the economy for the fastest possible buildup of forces, the deployment of the largest forces sustainable against the largest concentration of enemy forces possible to maximize the overall rate of attrition.²⁴

While some US commanders in World War II—for example, Douglas MacArthur and George S. Patton—practiced the operational art, the war for the US Army was basically a war of attrition at the tactical level owing to the superiority of materiel resources.

The operational level according to FM 100-5 is:

The theory of larger unit operations. It also involves planning and conducting campaigns. Campaigns are sustained operations designed to defeat an enemy force in a specified space and time with simultaneous and sequential battles.²⁵

The essence of the operational art has been captured by retired Lt. Gen. John H. Cushman, who states that operational art is:

A grasp of warfare as a duel between opposing forces each of which is governed by the minds of men . . . a thorough understanding of what goes on in the dynamics of the air/land battlefield, the ability of the responsible commander to think in terms of the harmonious orchestration of time, space, force, and logistics toward his ends.²⁶

Luttwak explains the primary purpose of the operations level of war as, “The operational level of war seeks to attain goals set by theater strategy through suitable combinations of tactics.”²⁷ This concept implies the existence of a link between tactics, operations, and strategy. Tactics, of course, must be conducted within the scope of operations. In turn, operations must be conducted within the scope of strategy. It also reinforces the criticality of the operational judgment of commanders who actively devise tactics and operations to fit an overall plan or goal. The concept amplifies

the increasingly complex but tightly integrated and closely linked scheme of engagement, battle, and campaign as Clausewitz discusses in *On War*.

One of the best ways to understand the operational level of war and to gain insight into its implications lies in contrasting selected aspects of the tactical and the operational levels. They first differ by the emphasis on defeating and controlling the mind of the enemy commander. The tactical level tends to focus on the destruction of enemy forces.

The enemy division, army, or front commander has to be attacked mentally. He must be manipulated to shape his plan so friendly forces can either destroy or defeat him. The friendly commander must gain moral ascendancy over the enemy commander. With moral ascendancy, the friendly commander can gain and maintain initiative at the operational level. Through defeating the mind of the enemy commander, the will of the enemy can be broken. With a breakdown of will, the enemy can be destroyed in depth. J. F. C. Fuller offers a cogent thought that serves to buttress this argument:

The decisive point is not the body of the hostile army, just as politically the decisive point is not the body of the hostile nation. Politically the decisive point is the will of the hostile nation, and grand tactically (operationally), it is the will of the enemy's commander. . . . To paralyze this will we must attack his plan, which expresses his will—his reasoned decisions.²⁸

Military theorist Col. Wallace P. Franz supports this by stating:

Our objective is to influence the mind of the enemy commander. Mental impressions are more important than physical damage. A decision is achieved when a psychological effect has been produced on the enemy and he becomes convinced that to continue his present course of action is useless.²⁹

Attacking the mind of the enemy commander, though, has several implications for both knowing the enemy and manipulating his thinking through friendly activeness.

Another key difference between the operational level and the tactical level is time. Operational planners, for example, while interested in today, primarily focus on the future. Tactical planners are more concerned with immediate combat. To concentrate on the future, operational planners have to know time-and-space relationships for both friendly and enemy combat, combat support, and combat service support. The expansion of

our focus and compression of the enemy's time are critical in attacking the mind of the enemy commander, in shaping the battlefield, in moving forces and logistics to support operations, and in maneuvering combat power to either defeat or destroy the enemy.

Depth of the battlefield also serves to differentiate between tactics and operations. Depth at tactical levels usually applies to the limits of direct or indirect-fire weapon systems and the organic ability to see deep. But depth at the operational level can stretch for hundreds of kilometers owing to the availability of assets to see deep and attack deep.

Depth also applies to dimensions of the battlefield, including rear, width, and space. One author defends this assertion by stating, "The operational level, by its very nature, moves in dimensions of mass, space, and time that are greater than those of tactics."³⁰ Depth of the battlefield at the operational level is closely related to time and to shaping the opposing force and commander's plan.

While the concepts of centers of gravity are evident in tactical, operational, and strategic levels of war, the concept is especially apropos to the operational level because of simple feasibility. A center of gravity is "the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."³¹ While the center of gravity is often an opponent's army, it can also be other critical aspects or assets of his operations—for example, logistics; command, control, communications, and intelligence nodes; enemy commanders; and pipe lines.³²

The first step in planning for operational campaigns is to identify the enemy's center of gravity. The operational commander, then, must ensure "that the forces to be used against that point are concentrated for a main offense."³³ Once an opponent's center of gravity is identified, coherent plans can be developed involving engagements, battles, and campaigns to attack that center of gravity.

The operational level of war requires an expanded capability to think. This capability is characterized by several requirements. First, due to the depth of corps and higher operations and to the time required for planning and conducting operations, the planner at the operational level must be able to think in the future. Planning for future operations requires anticipatory thinking—that is, thinking that anticipates activities on both sides; thinking that acknowledges links between engagements, battles, and campaigns; thinking that examines effects; and thinking that identifies some of the contingencies possible when frictions of war alter a plan. Sun Tzu offers addi-

tional insight into anticipatory thinking in the statement, “When the enemy presents an opportunity, speedily take advantage of it. Anticipate him in seizing something he values.”³⁴ This type of thinking involves dealing with vagueness, ambiguity, and less than certain information. The officer engaged in anticipatory thinking must be comfortable with ambiguity.

The planner at the operational level must recognize the relationships between the physical and moral domains of war. Maneuver, for example, can be used to obtain the initiative. Initiative enables the friendly commander to achieve moral ascendancy and provides the physical means for the friendly commander to turn inside the enemy commander’s decision cycle. Controlling the initiative encourages freedom of action, so friendly forces can maintain momentum and combat activeness.

While past conventional wars have tended to demand a linear battlefield, AirLand Battle doctrine accepts the notion that US forces may have to fight on a nonlinear battlefield. This conjures images of a less than tidy battlefield in the theorist’s mind. Yet, it makes sense when thinking through the nature of a potential war against the Soviets.

The Soviet vision of war, the way they intend to attack, and the quantitative weakness of NATO combine to dictate this nonlinear battlefield. The Soviets will attack on a wide front, seeking the weakest spots for exploitation. We can assume multiple penetrations along the front very early in a conflict. Additionally, the terrain of Central Europe suggests that physical constraints for the attacker and the defender will dictate a nonlinear battlefield—for instance, narrow valleys, broad plains, and dominating terrain features.

The numerous built-up areas in West Germany pose a dilemma for the Soviets. They must bypass built-up areas to assure momentum and speed. However, they face the risk of significant attacks against their lines of communication from forces defending these locations in strongpoint positions.

Another reason for the nonlinear battlefield is AirLand Battle doctrine itself. In an effort to provide a broad approach for fighting outnumbered and winning, the doctrine advocates the indirect approach, counterattacks, striking weakness with strength and depth on the battlefield. The nonlinear battlefield supports all of these approaches.

Significant portions of a war in Central Europe will be on a fast-moving, mobile battlefield. Penetrations and counter-penetrations will occur. Neither intelligence nor communications will always be effective. The battlefield at times will be confusing and chaotic for both sides. While such

chaos is somewhat distracting for the coherence of a defense, a chaotic battlefield could be devastating to an attacker whose combat power is built on norms and combined arms cohesion. A nonlinear battlefield offers significant advantages to the defense if weapons systems, terrain, and human resources are used correctly. A nonlinear battlefield also implies different approaches to command and control—less control and more command.

Auftragstaktik—the theory, practice, and training in the use of mission orders—is closely associated with an emphasis on command rather than control on a nonlinear battlefield. This concept encourages the choice of “sensible courses of action which contribute to the desired outcome within the framework of the overall scheme.”³⁵ This concept will be crucial when accepting the notion that units will be cut off and communications will be intermittent.

In the same sense that *Auftragstaktik* serves to enable higher commanders to make assumptions about their subordinate’s thought processes and actions, the subordinate can make assumptions about the superior’s thought processes and actions. This applies particularly to reinforcement, combating rear area threats, breakout from encircled positions and resupply.

The nonlinear aspect of future battlefields has several effects on the US officer corps. Flexibility of thinking must be developed, nurtured, and reinforced. The concept of initiative within the bounds of the overall commander’s plan needs to be reinforced. A common intellectual outlook and educational heritage must be developed to enable decisions to be made without normal means of communication, and the officer corps must develop exceptional thinking and planning abilities.³⁶

AirLand Battle doctrine is more descriptive than prescriptive of the phenomenon of war. Therefore, it does not provide definitive answers to ambiguous and difficult problems. Officers should not learn what to think to solve complex military problems but, instead, they should learn how to think about war.

AirLand Battle doctrine is inherently powerful as it focuses on both the physical and the moral domains of war. The officer must understand many abstract relationships between the moral and physical domains of war. Furthermore, the officer must understand how seemingly unrelated elements and events, in the moral and physical domains, fit together on the battlefield. The doctrine is strongly linked with the theories of Clausewitz and Sun Tzu, so US Army officers must have a strong foundation in military theory and history to understand the doctrine.

Part of the doctrine's inherent power lies in its emphasis on both nuance and relationship. Understanding these concepts, though, requires an extensive depth of knowledge in the art and the science of war. AirLand Battle doctrine provides the US Army with the potential power to emphasize our strengths, to expand our mental capabilities, and to defeat a quantitatively superior foe. We must, however, stimulate the thought processes that can turn latent power into active power.

About the Author (from the 1986 article)

Maj. Wayne M. Hall is the executive officer, 104th Military Intelligence Battalion, Fort Carson, Colorado. He received a BS from the University of Nebraska, an MS from Kansas State University, and a PhD from George Washington University. He is also a graduate of the Command and General Staff Officers Course and the Advanced Military Studies Course, US Army Command and General Staff College. He previously served as plans officer, Office of the Assistant Chief of Staff for Intelligence, Headquarters, Department of the Army, Washington DC. His article "A Critique of the Doctrine-Training Fit" appeared in the June 1985 *Military Review*.

Notes

1. Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 77.
2. Huba Wass de Czege, "Military Reform Debate," in *Toward a New American Approach to War, US Military Academy Senior Conference XX* (West Point, NY: US Military Academy, 1982), 10-1-61.
3. Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1982), 2-1.
4. FM 100-5, 2-1.
5. Huba Wass de Czege, "Challenge for the Future: Educating Field Grade Battle Leaders and Staff Officers" (unpublished paper, US Army Command and General Staff College, Fort Leavenworth, KS, 15 September 1983), 5.
6. Joseph J. Redden, *AirLand Battle—The Global Doctrine?* (Carlisle Barracks, PA: US Army War College, 1983), 2.
7. Lt. Col. (P) Huba Wass de Czege and Lt. Col. L. D. Holder, "The New FM 100-5," *Military Review* 62, no. 7 (July 1982): 53–70.
8. Wass de Czege, "Challenge for the Future," 64.
9. Department of the Army, FM 100-5, 8-5.
10. FM 100-5, 8-1.
11. Clausewitz, *On War*, 184.
12. Clausewitz, 99
13. Archer Jones, "FM 100-5: A View from the Ivory Tower," *Military Review* 64, no. 5 (May 1984): 18.
14. Clausewitz, *On War*, 231.
15. F. O. Miksche, *Attack: A Study of Blitzkrieg Tactics* (New York: Random House, 1942), 2 and 16.
16. Miksche, 17.
17. Clausewitz, *On War*, 198.
18. Sun Tzu, *The Art of War*, trans. Samuel B. Griffith (London: Oxford University Press, 1963), 77.
19. Sun Tzu, 100.
20. B. H. Liddell Hart, *Strategy* (New York: Frederick A. Praeger Publishers, 1954), 18–19.
21. Liddell Hart, 164.
22. Sun Tzu, *The Art of War*, 106.
23. Sun Tzu, 100.
24. Edward N. Luttwak, "The Operational Level of War," *International Security* 5, no. 3 (Winter 1980–81): 77.
25. Department of the Army, FM 100-5, 106.
26. John H. Cushman, *Organization and Operation Employment of Air/Land Forces* (Carlisle Barracks, PA: US Army War College, 1981), 7-1.
27. Luttwak, "The Operational Level of War," 61.
28. J. F. C. Fuller, *The Foundations of the Science of War* (London: Hutchinson and Co Publishers, 1932), 10.

29. Col. Wallace P. Franz, "Maneuver: The Dynamic Element of Combat," *Military Review* 87, no. 3 (May 1983): 12.
30. Franz, 4.
31. Clausewitz, *On War*, 595–96.
32. Col. Wayne A. Downing, "US Army Operations Doctrine: A Challenge for the 1980s and Beyond," *Military Review* 61, no. 1 (January 1981): 67.
33. Clausewitz, *On War*, 619.
34. Sun Tzu, *The Art of War*, 140.
35. William DePuy, *Generals Balck and Mellenthin on Tactics: Implications for NATO Military Doctrine* (McLean, VA: BDM Corporation, 1980), 17–18.
36. Erich von Manstein, *Lost Victories* (Chicago: Henry Regnery Co., 1958), 547–48.

Chapter 10

Offensive Tactical Operations

Maj. Gen. L. D. Holder

The Army has a historical preference for offensive operations. Since the Civil War, we have fought our battles overseas, and although we have stood on the strategic defensive throughout this century, our support to allies has always meant containing aggression for the shortest possible time, then going over to the attack. Even in Korea and in Vietnam, where our strategic goals were clearly defensive, we aggressively carried the fight to the enemy.

The NATO General Defense plans—widely criticized for impairing the offensive outlook of our officers—led us to put a lot of time into the study of defense in our military schools. But even so, what we actually did in Korea, Vietnam, Panama, and the Persian Gulf was to attack. All this is to say that we have a long tradition of offensive thinking and action and that we have consistently worked to breed the spirit of the offensive into our soldiers and leaders.

Therefore, what the revised US Army Field Manual (FM) 100-5, *Operations*, says or does not say about offensive operations is of great interest. This article discusses offensive tactical operations in a power-projection Army, summarizes the key ideas of the revised manual, and offers some thoughts about what remains to be done in training and in doctrine to implement the principles of FM 100-5.

Change and Continuity

The time has clearly come to modify our basic doctrine. Even if world and national events had not forced us to reorient toward a strategy of power projection, technical developments since 1986 necessitate restating our basic doctrine. Improved communications have revolutionized command and control from the national level all the way down into the brigades. Intelligence collectors, precision-guided munitions, high-speed data processors, better armor and air defense, advances in air and ground mobility, and more responsive combat service support have all changed the way we fight.

In the realm of pure theory and in a conflict between equals, these changes might tip the tactical balance in favor of the defender. The reali-

This chapter is a reprint of Maj. Gen. L. D. Holder, "Offensive Tactical Operations," *Military Review* 73, no. 12 (December 1993): 48–56.

ties of today's strategic situation, however, make combat between equals unlikely. The United States and its allies will hold an edge in critical aspects of conventional operations, such as air superiority, sea control, command of space, precision fires, operational intelligence gathering, and integrated communications and data transfer. Under those conditions, US tactical doctrine can—and should—continue to put offensive operations in a very prominent place. Our doctrine should reflect our strong potential for conventional offensive warfare, even under the difficult conditions of forced entry or long-range deployment. To balance such claims, FM 100-5 needs only to admit the growing strength of regional powers and to address our greatest vulnerability: countering protracted guerrilla operations with offensive action.

AirLand Battle doctrine made a start in this direction. Its core arguments made offensive operations our doctrinal centerpiece again.¹ The 1982 version dismissed the numbers-driven logic of active defense and called for all Army operations to seek the initiative through indirect attacks, overthrowing the defense by surprise and finishing the fight before the enemy could recover. It elaborated that idea through the tenets of agility, initiative, depth, and synchronization. But the greatest of these was initiative.

The 1993 edition of FM 100-5 preserves most of the main points of AirLand Battle doctrine. It clearly keeps the emphasis on seizing and exploiting the initiative. This comes through clearly in its discussion of the fundamentals of the offense (Chapter 7), which raises the elements of surprise and initiative to greater importance than ever before. In fact, the revised manual transfers the old AirLand Battle formula for operations in general to offensive operations specifically, stressing the importance of surprise, exploitation of enemy weaknesses, relentless pressing of success, and follow-through to prevent the enemy from recovering from the shock of the initial attack.

AirLand Battle doctrine put roughly equal accent on the principles of surprise, objective, and offensive. It gave commanders great freedom in devising original concepts of operation and held them responsible for doing so. (This contrasts with the more mechanical approach of the 1972 manual.) The 1993 manual continues in this direction and is far superior to its predecessors in setting the previously misunderstood business of commander's intent in its proper relationship to the concept of the operation.

Finally, AirLand Battle doctrine kept very close to the dominant offensive theory of the middle twentieth century—the combined arms model started by British theory and German practice. It enlarged that idea by

adding Marshal Mikhail N. Tukhachevsky's conception of simultaneous attacks in depth, the pattern that gave birth to the Army's deep operations. Notably, though, US deep operations aimed explicitly at creating limited, transitory "windows of opportunity" for decisive action in the close fight. In the offensive, the doctrine specified that deep operations would keep the situation fluid and preserve the initiative for the attacker by isolating or immobilizing defending units while delaying and disorganizing enemy reserves at critical junctures.

Within the "close operation," AirLand Battle doctrine held that attacks would follow familiar patterns of fire and maneuver, although they would progress at greater speed and with greater violence. Operations Just Cause and Desert Storm were fought with that doctrine and seemed to bear out those assumptions.

Our revised doctrine leaves most of the offensive basics of AirLand Battle unchanged. It increases the accent on surprise-based, maneuver-oriented attacks, but it retains most of our past doctrine's terms and categories, such as forms of maneuver and types of operations. This will minimize the changes in education, training, and force development that come with doctrinal modification.

At the same time, though, the new material on offense implies that in recent campaigns, technical developments—Joint Surveillance and Target Attack Radar System, space systems, long-range weapons, and others—have changed the nature of combined arms warfare, altering a pattern of relationships that goes back to World War II. The new manual also differs in saying nothing about force ratios. It drops the old framework of the battlefield, insisting that greater variety in design is necessary to accommodate current capabilities. Also, it frees the deep operation from the close operation in a way that would have been unthinkable in 1982.

Its silence on correlation of forces and desirable ratios of combat power is interesting in the light of past practice. We overdid the "calculus of battle" in the days of active defense and exaggerated Iraqi abilities using the less quantitative AirLand Battle doctrine. Removing numerical comparisons from the discussion may not hurt us at the broad level of FM 100-5. In reality, we will still teach staff officers and commanders to make estimates that take account of the numbers of troops available to each side. Revised doctrine, however, will discourage the tendency to quantify things that really cannot be computed and promote the idea that intangible factors can matter as much as numbers. If the doctrine dispels the idea that a six-to-one advantage is necessary for an attack, it can be considered an improvement.

In rejecting the previous battlefield framework, however, the manual fails either to justify its approach or to replace the old idea adequately. It dismisses the past pattern as a relic of the Cold War in the same sentence that it credits that model (see Figure 10.1) with some useful flexibility. Then, without offering other options, it urges Army commanders to “go beyond that single alternative in considering the correct battlefield framework for the mission.”²

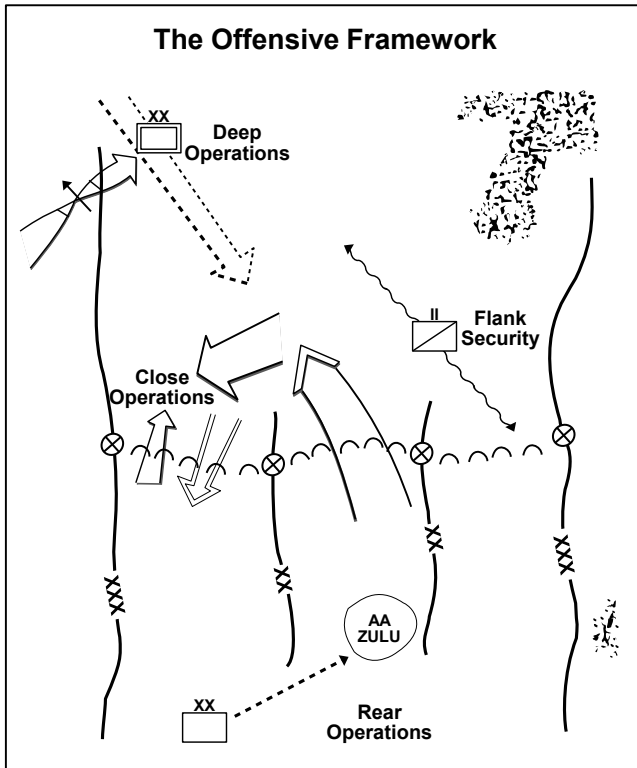


Figure 10.1. The Offensive Framework. Source: Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1993), 107.

Specifically, the manual recommends US joint doctrine as “a preferred” framework for current operations. This makes sense but comes off a bit weak without elaboration. Quoting the Joint Staff’s “A Doctrinal Statement of Selected Joint Operational Concepts” (10 November 1992) would have clarified the matter. In the end, we gain ground by adopting—or at least recommending—a joint-approved model for the attack. But our

own manual does not serve us well either in erasing the workable tie of past Army doctrine or in omitting the details of emerging joint doctrine.

In the confusion, we also lose doctrinal clarity on a set of offensive responsibilities that are highly important and generally misunderstood. The relationship of offensive security forces, advance guards, and main body does not receive sufficient attention in doctrine or in training. We routinely fail to make those elements of the attack interact smoothly in training and in operations. In our training exercises at the National Training Center, Fort Irwin, California, and the Combat Maneuver Training Center, Hohenfels, Germany, we disregard them altogether in our single-minded concern with the isolated battalion/task force. In operations, we define responsibilities poorly, lag in transition from meeting engagements to attack or defense, and train no more than a handful of officers to move and commit reserves without losing momentum. FM 100-5 could have profitably devoted more discussion to these matters in its offensive chapters.

On the plus side, the revised manual introduces a new and better expression of what we used to call areas of interest and influence. Its addition of “battle space” establishes a logical progression of operational areas from the theater of war to the theater of operations into the tactical realm. This adds consistency to our doctrinal view of physical divisions of the area of combat. This is important because it stakes out Army interests in a contested area of joint and service doctrine. Without such an explanation, we would abandon a vital dimension of operations to air theorists who are inclined to limit the land offensive to the fight between committed forces and claim everything beyond the range of organic fires as the air commander’s responsibility.

This leads to the crux of deep operations. On this subject, the new manual takes a substantially different tack than its predecessors. Formerly, deep operations supplemented the close operation; the tie was direct and unbreakable. Now, according to revised doctrine, the deep operation may have a wholly different set of objectives than the close operation and may even be designated the main effort. In the first place, deep operations orient on functions rather than forces. Second, “commanders may pursue separate battle objectives by using deep and close combat operations, either of which may be the main effort.”³

This is radical stuff. At the operational level, it conforms with the Air Force position that actions far beyond the forward line of own troops can decide battles and campaigns.⁴ Army planners can agree on that point without much discussion. In tactics, however, this view comes close to

agreement with air theorists who hold that ground operations may well be subordinate to, and dependent on the effects of the air campaign. FM 100-5 holds that the objectives of the ground commander ought to shape a campaign as it proceeds from one phase to the next. Nonetheless, the revised doctrine changes our previous position significantly.

These basic doctrinal differences are important. They will affect the way young officers learn to think about offensive operations. It is a positive step to get on beyond World War II patterns. At the same time, the revised FM 100-5 leaves a lot more to its subordinate manuals than it should in the specifics of how to conduct offensive operations. It provides much less detailed guidance on operations than any of its predecessors of the last twenty years.

Power-Projection Operations

In spite of all that, the most important feature of our revised tactical offensive doctrine is its focus on contingency or power-projection operations. The doctrine of 1993 will be noted much more for its deliberate change from the tactics of forward deployment to those of power projection than for its subtle shifts of ground on deep operations or organization of operations.

In dealing with power projection, the revised FM 100-5 takes most of its examples from Just Cause and Desert Storm. It would have done better to cite North Africa (1942) and Korea (1950). Those examples may more closely parallel tomorrow's needs. The Army of today must stand ready to move forces from the Continental United States (CONUS) or Europe into distant theaters quickly, act fast to stabilize crises, then promptly shift to the offensive to impose the will of the National Command Authorities. In other words, our tactical offensive will have to be built into the deployment operation just as deliberately as it is crafted into the defense of the entry area.

Offensive operations of a power-projection Army will be different. Their purpose will not change: the manual continues to preach the offensive as the decisive form of war. It also persists in describing the "ideal" defense in the terms of Capt. B. H. Liddel Hart's expanding torrent as its predecessor did.

Still, contingency offensives will differ substantially. They will tend toward bare sufficiency because the Army will be smaller and have fewer "troops available." The need for speed and the size constraints of strategic deployments will also affect the nature of force-projection offensives. Commanders of attacking forces will, therefore, have to make hard deci-

sions of timing and will have to weigh far greater risks than those faced by the commanders of larger forward-deployed forces. Among those are the risks of attacking too soon before the full potential of the deploying force is developed and of waiting too long and thus allowing the original aggressor to solidify his defense. In calling for quick decisions at low cost, the manual accurately records American preferences; squaring those with the realities of deploying and fighting in a distant theater is another matter. In sum, the “bold, decisive, risk takers” idealized by AirLand Battle doctrine will have to get even bolder (wiser, too, in all likelihood) to deal with power-projection offensives.

One hedge against these risks is the idea of “split-base” support. Trading on instantaneous global communications and the US strength in space-based operations, FM 100-5 promotes the idea that we can dedicate more deployment space to combat units and expedite transition to the attack by performing supporting functions such as intelligence analysis and some logistics management from CONUS. Continuous communications between CONUS and the active theater would make this possible. There are some growing pains with the idea—loss of personal contact, tendency to over-rely on technical means—but the leverage that comes with such an idea is too great to ignore.

Political, military, and psychological influences will always compel American commanders to resolve crises fast. This insistence on decisive solutions has important organizational implications for power-projection offensives. It means we will have to form strategically mobile forces that are structured to assume the tactical offensive early. Forces committed to power-projection operations, in other words, will have to serve multiple purposes. As the Army force list gets shorter, doctrine will drive us to retain units that can make a difference in every phase of an operation. We will not be able to afford many highly specialized units like the infantry and armored divisions of today.

Strategically mobile light infantry cannot be relegated to purely defensive missions. While we will need infantry troops in almost every contingency, we must assure that they come with—or are instantly followed by—the air, amphibious, and ground mobility, and the hitting power necessary for seamless transition from defense to attack.

Tactically powerful armored units likewise perform indispensable functions but are hampered by their strategic unwieldiness. The Army prescribed by our doctrine will need the mobile protected striking power of armor in more portable packages. Although it stops short of making the

call explicit, the offensive doctrine of the new FM 100-5 strongly suggests a need for deployable, middleweight armor and mechanized infantry brigades and divisions.

More often than not, force-projection operations will be done in cooperation with forces of other nations. This tendency toward combined operations stems from scenarios that call on Army forces to reinforce a threatened nation and from our own desire for international approbation when we take military action. The tactical consequences of this include the need to adapt our own operational style to those of our allies and a case-by-case requirement to recognize differences, cover vulnerabilities, and exploit advantages of a multinational force.

In offensive operations this will burden us with real, though not strictly tactical, concerns. Such considerations as assuring representation of other nations on staffs and in prominent tactical roles become important. Capabilities of hosts and allies may dictate the tempo of the attack and affect its form. Mixing personalities and organizations, reconciling doctrinal differences, and accommodating the variations in national styles and goals has been a considerable burden in past combined operations, even at the tactical level. As we become more and more a home-based Army, we will need to work at maintaining contacts with the forces of friendly powers. Our basic doctrine should reflect this reality more strongly than ever as we lose the daily contacts that came with forward deployment; the 1993 version of FM 100-5 gives no more coverage to the subject than its predecessor did. Subordinate manuals, exercises, exchange programs, and the military schools will need to fill this gap.

In terms of national doctrine, the manual now distinguishes some new types of offensive operations and preserves our doctrine's eleven-year-old emphasis on the human component in operations. Specifically, the revised FM 100-5 adds definitions of the approach march and search and attack missions—a useful concept for low-intensity conflict. It puts “hasty” and “deliberate” attacks together under the general heading of “attacks” and retrieves reconnaissance in force, raids, spoiling attacks, feints, and demonstrations from their formerly separated location, presenting them as special types of offensive operations.

It also retains the 1986 manual's brief discussion on conducting operations. This section of the new manual is too short and general to be used as a guide. It may, however, direct doctrinal attention to a subject we habitually slight. At best, it will lead to some further treatment in our

tactical courses, which tend to overdo planning at the expense of teaching the techniques and challenges of executing operations.

As for its treatment of human factors, the manual clearly improves on what we have done before. Nothing is more important to leaders than understanding the psychology of combat. Human strengths and weaknesses on both sides of a conflict determine the limits of the possible and the extent of success.

Force projection commonly comes on short notice, making the transitions from peace to war harder and putting soldiers into strange, stressful surroundings at the speed of air travel. Peacetime training cannot realistically portray these human effects. Computer simulations ignore them altogether. It is the job of our doctrine writers and military educators to keep human dynamics firmly in front of our developing leaders.

In the attack, the will to fight and the readiness to take positive action despite bad information and the temptation to wait on events are vital. FM 100-5 makes this quite clear, leaving it to trainers to represent these things as realistically as possible in exercises.

The 1986 version of FM 100-5 included a useful description of the functions of each tactical organization. This annex has been dropped. Instead, the offensive discussion of Chapter 8 handles this in a single paragraph that repeats the old formula for battalions but does not differentiate the offensive roles of brigades and divisions.⁵ This will leave the service schools and training centers on their own to figure out offensive basics, which are really the business of capstone doctrine.

The Battle Command Training Program (BCTP) and the Combined Arms Command, in particular, will have to pick up this slack and give light and heavy forces the detailed guidance for offensive tactics once provided by our capstone manual. Gaining acceptance for their solutions will be far more difficult for those institutions than it would have been for the writers of FM 100-5.

The importance of this is very great. One only has to visit the Combat Training Centers or sit in on a BCTP seminar to gain a sense of how badly founded we are in offensive tactics. Piecemeal commitment of battalions, weak appreciation of the functions and limitations of battalions and brigades, ignorance of the basics of securing offensive maneuver, marginal use of supporting artillery, and failure to maintain momentum typify too many of our attacks in training. Synchronizing the cooperation of light and heavy forces remains difficult for us.

Additionally, few officers understand the role of offensive security forces, the relation of advance guards to the main body, or the practical considerations for sustaining the momentum that FM 100-5 stresses so much. None of our existing manuals address the basics of keeping the reserve positioned for flexible commitment or of managing movement in something as complicated as a heavy corps attack. While some of our Gulf experience is useful, Desert Storm generally serves poorly as an example. To a rare degree, that operation unfolded almost without change in a theater where terrain imposed no limits on forward or lateral movement.

It is not the job of doctrine to solve these training deficiencies for us. However, it should mark them for us because they are systemic blind spots. Current shortages in resources and deficiencies of our training areas only make the need for doctrinal specificity greater. So does the less specific nature of contemporary planning: if future operations turn out to be “come as you are” affairs with pick up task organizations, we better know exactly what we want out of deep operations, security forces, main body troops, and so on. Further, if we expect to integrate formations of other nations into our armies and corps, we ought to be prepared to tell them precisely what our forces do and be able to fit them into a rational, standardized tactical scheme.

In the absence of such specifics, the schools will have to produce more detailed corps and division manuals. The light and heavy force proponents will be required to negotiate standard doctrine for mixed forces. This will be done best by the Combined Arms Command. Its training branch, especially BCTP, can assist by developing tasks and standards for tactical offensive—but these will have to fill in some doctrinal blanks and will, therefore, have to be carefully monitored by the rest of the force.

These things apart, the new manual will serve us well as we transition from forward deployment to force projection. It successfully highlights the differences in attacking in an established theater and from a hastily formed air- or beachhead. It gives the proper lead to combat developers and war planners. It makes the challenge of force design crystal clear, and it leaves the field open to useful debate and instruction in the service schools.

Altogether, it is sound doctrine. Our challenge will be to follow up energetically to act on its conclusions and fill in its gaps. Above all, we need to spell out its implications for conventional attacks and apply its principles for offensive action in the nebulous realms of peacekeeping and unconventional warfare.

About the Author (from the 1993 article)

Maj. Gen. L. D. Holder is the commander, 3rd Infantry Division, Leighton Barracks, Würzburg, Germany. He received a master's degree from Harvard University. He is a graduate of Texas A&M University, the US Army Command and General Staff College (USACGSC), and the Advanced Operational Studies Fellowship, US Army War College. He participated in writing the 1982 and 1986 versions of the US Army Field Manual (FM) 100-5, *Operations*, and served as director, School of Advanced Military Studies, USACGSC; commander, 1st Squadron, 3rd Armored Regiment; and G3, 2nd Armored Division. His article "Education and Training for Theater Warfare" appeared in the September 1990 *Military Review*.

Notes

1. It is now fashionable to describe AirLand Battle as defensively oriented and hopelessly locked on to the Soviet Threat. In fact, the manuals of 1982 and 1986 broke up an existing preoccupation with the defense of Europe, drawing indignant criticism from some NATO officers for its offensive cast.

2. “During the Cold War, US Army doctrine stressed a battlefield framework that fit the conduct of operations against the Warsaw Pact, even while allowing variations of that framework to apply in other theaters.” Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1993), 6-12.

3. FM 100-5, 7-12.

4. All Army officers should be familiar with the Air Staff’s *Joint Force Air Component Commander Primer* (August 1992). It professes a view of responsibilities for deep operations quite different from our own—and (so far) different from joint doctrine.

5. Department of the Army, FM 100-5, 8-1.

Chapter 11

Operational Maneuver: From the American Civil War to the OMG

Lt. Col. James G. Snodgrass

Military men who disdain theory and respect only practical knowledge, forget that the one proceeds from the other; and that theory, properly speaking is only law deduced from facts; it flows from them and also governs their application.¹

The instructed officer, contrary to what is held by those who disdain theoretical studies, will have less hesitation, and feel less embarrassment in action, than the ignoramus who depends solely upon the inspiration to be afforded by his good sense. He will also be more calm because he will know what should be done, and more modest because he is convinced that the wisest man knows but little in comparison to what remains to be learned.²

Introduction: Operational Maneuver Defined

Operational maneuver—what is it, what are its origins, and will it work today? The term operational maneuver is in vogue, discussed in some detail in the current Field Manual (FM) 100-5 and mentioned repeatedly in subsequent articles dealing with doctrinal issues. The Soviets have really popularized the concept by planning for the introduction of specially tailored Operational Maneuver Groups in the opening move of a Western European conflict. Officers in the American military have become enamored with the concept because it lends a unique focus to the operational level of war.

The 1986 version of FM 100-5 defines operational art as “the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations.”³ The operational level is the essential link between strategy and tactics, and the calculated campaign planning designed to accomplish strategic goals and objectives.⁴ We need to achieve those strategic objectives with good campaign planning and the expeditious use of large units which gain operational advantage. General Glenn

This chapter is a reprint of Lt. Col. James G. Snodgrass, “Operational Maneuver: From the American Civil War to the OMG” (monograph, School of Advanced Military Studies, US Army Command and General Staff College, Fort Leavenworth, KS, February 1988).

Otis, CINCUSAREUR [commanding general, US Army Europe], has stated that “the primary purpose of the operational level is to gain positional advantage over the enemy” and “at the operational level . . . your goal is not to kill the enemy, but to provide opportunities for the commander at the tactical level to kill the enemy. Your operational objective is to put the enemy in harm’s way.”⁵ Given these short formulas for operational art and the operational level of war, then exactly what is *operational maneuver*?

FM 100-5 emphasizes that the primary dynamics of combat power necessary to defeat an enemy at both the tactical and operational levels are maneuver, firepower, protection, and leadership.⁶ The leaders, of course, pull all the dynamics together, but maneuver is the key factor:

Maneuver is the movement of forces in relation to the enemy to secure or retain positional advantage. It is the dynamic element of combat—the means of concentrating forces at the critical point to achieve surprise, psychological shock, physical momentum, and moral dominance which enable smaller forces to defeat larger ones. . . . Effective maneuver keeps the enemy off balance and thus also protects the force. It continually poses new problems for the enemy, renders his actions ineffective, and eventually leads to his defeat.⁷

Similar to General Otis’s statements, operational maneuver “seeks a decisive impact on the conduct of a campaign. It attempts to gain advantage of position before battle and to exploit tactical successes to achieve operational results. . . . Effective operational maneuver requires the anticipation of friendly and enemy actions well beyond the current battle . . . and the movement of large formations to great depths.”⁸

Another way of defining it is:

Maneuver is the essence of our fighting doctrine. Maneuver, in the operational sense, is the swift positioning of combat units to attack the enemy’s rear, strike his flank, cut his lines of communication, bog him down in non-decisive areas, fall on an isolated segment of his force, or elude his attack. Maneuver is the *means* to seize or retain the initiative. Maneuver is the *means* of concentrating overwhelming combat power at a decisive time and place. Maneuver is the *means* to create and exploit tactical and operational advantages. It is the *means* to fight outnumbered and win.⁹

Col. L. D. Holder, one of the authors of FM 100-5, reiterates that “in operational maneuver, opposing commanders try to secure favorable terms of battle by obtaining advantages of position or strength. To do so, they shift directions of movement, change dispositions, probe and feint,

throw obstacles in the enemy's path, and, at the best opportunity, mass and commit their forces to battle. In open warfare, this may entail movement of the entire force. In static situations, it involves deception, detailed preparations, and rapidly concentrating forces just before battle."¹⁰

Somewhat congruent, but with a much different bent (and certainly not doctrinal), is military reformer Edward Luttwak's idea of *relational-maneuver*. Luttwak contends that maneuver doctrine is much more appropriate than a firepower-attribution doctrine, ensuring that this operational maneuver 1) avoids the enemy strength as much as possible, 2) uses deception in every phase, and 3) is truly elusive and achieves momentum.¹¹ He uses the German Blitzkrieg of 1940 to illustrate his key points, that the goals of *relational-maneuver* are to 1) "incapacitate the enemy political-military system by destroying political and military command centers" and 2) "destroy selected critical war fighting and recovery facilities." Luttwak recommends the deployment of theater-specialized formations configured especially to exploit the weaknesses of the particular enemy forces in each theater.¹²

The common threads throughout all the foregoing descriptions of operational maneuver include many of our longstanding principles of war (maneuver, mass, offensive, objective, surprise) and our more recent tenets of AirLand Battle doctrine (agility, initiative, depth, and synchronization). This should not be surprising in that operational maneuver is not a new concept, but simply a reemphasized concept which had fallen out of use in the United States military since World War II.

We cannot fully appreciate or understand operational maneuver, however, until we review the thinking of the world's most experienced practitioners of operational maneuver warfare—the Soviets. The Germans in World War II, from the early *Blitzkrieg* on their Western Front to several campaigns on their Eastern Front, were great executors of operational maneuver (especially von Manstein and Guderian), but their loss of the war made the Russians (who likewise practiced this art on a grand scale) the uncontested "experts" at the operational level.

Charles J. Dick, noted British expert on Soviet defense policy and strategic, operational, and tactical concepts, has written several articles as well as the British Army Field Manual on Soviet operations and succinctly describes the guiding principles of Soviet operational art, and, consequently, *operational maneuver*:¹³

- Mobility and a high tempo of combat operations—with the focus on speed and flexibility.

- The concentration of main efforts and the creation of superiority in forces and means at the decisive place and decisive times—quickly and with both quantitative and qualitative correlation of forces.

- Surprise—along with deception and secrecy.

- Combat activeness—essentially seizing and holding the initiative—within their overriding stress on the offensive—keep the momentum and pressure—be bold.

- Preservation of the combat effectiveness of friendly troops—active and passive protection measures and concern for morale of the troops.

- Conformity of the goal of the operation to the conditions of the actual situation—realistic assessment of own and enemy’s strengths and weaknesses.

- Coordination of all branches and arms and effective command and control.

- Simultaneous action upon the enemy to the entire depth of his employment—attack the enemy rear to affect him psychologically and politically as well as physically and militarily.¹⁴

Whether or not the Soviets can execute these principles of their operational art theory, and specifically operational maneuver, will be addressed later. For now, note the obvious similarities between these Soviet principles and the previously described definitions of United States operational maneuver. The commonality of theoretical principles is striking.¹⁵ The four tenets of AirLand Battle are embedded in those eight Soviet principles, as are most of the US principles of war. Should that commonality be surprising? I think not.

Operational maneuver is thusly defined and described. Many large formations are capable of operational maneuver, but one of the most obvious implementations of Soviet operational art is their Operational Maneuver Group (and we should not take lightly the name they have selected for this modern formation—one geared to penetration deep into an opponent’s operational defenses).¹⁶ What is this operational deep strike force?

Operational Maneuver Group Described

The whole point of an OMG is that it is inserted into the enemy rear as early as possible, so that its activities help to crumble the defense from within. The OMG helps bring about the defeat of the enemy defense and a political collapse, and does not merely exploit a victory won by the main forces.¹⁷

*The rear offers masses of prime targets—geographical features, command and control and communications facilities, logistic installations, air-defense complexes, airfields, etc. They cannot all be adequately defended or moved out of harm's way. The disruption and psychological damage done by an OMG could be immense.*¹⁸

The Soviets have studied long and hard the NATO defense structure and ways to defeat it. The Operational Maneuver Group, while not innovative but rather an extension of World War II successes, is the most challenging and exotic (yet untested) part of their current offensive operational doctrine. The OMG is more than an exploitation force in that it sets the pace of the entire campaign. Chris Donnelly tells us that the Soviets believe that to win a conventional war in Europe (and they too want to do everything within their power to avoid a nuclear exchange), the key ingredient will be speed. They must initially achieve some surprise at the strategic and operational levels with enough first echelon strength to fix the NATO defenses and begin to find the weak links ripe for penetration. This first powerful stroke in several potentially vulnerable areas would force the Allies to commit reserves to plug those gaps. Then the Soviets would commit highly “mobile” formations (OMGs), either reinforced divisions in support of an army or reinforced armies in support of a front, to pour through at a penetration to strike deep into the Allied operational depth.¹⁹

Charles J. Dick describes the OMG as a large formation designed to carry the battle deep into the enemy operational rear. This formation (division or possibly army) would be reinforced with air support, artillery, air defense, engineer, and extra logistical support. It would have a mission which would be different from a follow-on second echelon of forces. It would rely a great deal on the ingenuity of the commander, but specifically it would 1) conduct deep raids against enemy communications centers, headquarters, airfields, air defense sites, logistics units and facilities, and nuclear delivery means; 2) attack and destroy any enemy reserves it might encounter in the way of meeting engagements; 3) seize enemy defensive lines in the rear to deny their use by the enemy; 4) block withdrawal routes and attack the enemy from the rear; and maybe even 5) seize strategic political or economic objectives (like the enemy capital or a key seaport).²⁰

The whole concept of the OMG is not to get it involved in a tactical head-knocking fight. On the contrary, they would much prefer that no real fighting be done. They want to turn loose this powerful, mobile juggernaut on the enemy rear area to run rampant from one key objective to another. They want to insert it deep as early as possible and let it run amok to help bring about a defensive collapse and lead to a quicker political collapse

and eventual decision. Nighttime commitment would be especially disastrous and the shock could bring about immense psychological damage.²¹ They want to “force the decision as far from the defender’s main strength as possible.”²²

Soviet-Russian-Asian Heritage and Antecedents

*The OMG . . . is the result of an evolutionary sequence of doctrines, concepts, and force structures with which Russian and Soviet armies have achieved success. To suggest that it is a revolutionary idea is to fail to understand history.*²³

*The current Soviet operational formation is not a unique revolutionary creation. It is a reflection of a long tradition of structuring and deploying for battle. In a sense, it represents a full maturation of the concepts [Mikhail] Tukhachevsky espoused when he defined deep battle in 1936.*²⁴

Given the foregoing description of the OMG, what is its genesis? Where did the idea come from? As indicated above, the OMG is not a revolutionary concept. Richard Armstrong detailed the Soviet World War II experience which led them to use formations which they called “forward detachments” and “mobile groups.”²⁵ He wrote that these formations were carefully organized “to develop the tactical success” and were “committed through gaps, at boundaries, or from the flank of the first-echelon units primarily along successful axes.” They followed “with the objective of rapidly developing the attack to the whole depth of German defenses.” The Soviets were convinced that “the decisive condition for complete destruction of the enemy was achieving a high attack tempo, for even short halts gave the enemy breathing space to maneuver or counterattack.”²⁶

According to Chris Bellamy, a recognized Soviet military history authority, the OMG is the “offspring of the forward detachment and the mobile group, and has aspects of both their characters. The OMG is . . . a forward detachment in its mission to destroy, disrupt, or seize specific objectives rather than enemy forces. However, in scale, and in the sense that it starts behind the first echelon and passes through it, exploiting success to some extent, it is more analogous to the 1941–45 mobile group. Its role in rapidly shifting the focus of combat to the enemy rear is also more consistent with the role of the mobile group as a component of the ‘deep operation.’”²⁷

Col. David Glantz, one of this nation’s most respected experts on the Soviet Army, also described in detail the differences between the forward

detachment and the mobile group and that, over the years, the distinction has really ceased to exist:

The older functions of the forward detachment and mobile groups have almost merged. Together, the contemporary forward detachment and operational group create the conditions for exploitation to the depth of a defense and conduct the actual exploitation. The forward detachments are the forward elements of the exploitation forces, and the operational groups are the main body which completes the process.²⁸

But while it is true that the Soviets perfected their theory and use of these mobile formations during the incredible fighting on the European Eastern Front during 1943–45, this concept was not born of World War II.

The Soviet theory of deep operations, which became well developed in the between-World War years, was a direct outgrowth of the bloody carnage of the trench warfare of World War I, when it seemed that no one could crack the “maneuver” code to overcome the hellish positional, defensive warfare dominated by machine guns and barbed wire.²⁹ V. K. Triandafillov formulated the basis of the 1920s–30s operational art—deep operations theory. He wrote that “deep and crushing blows” were necessary to achieve strategic goals. For him, operational art had to employ fully “all capabilities to develop blows to the maximum depth permitted by the physical and moral condition of troops, by road restoration and supply conditions.” He taught that “deep and crushing blows may put entire state organisms out of the game quite rapidly” and “may lead to the rout of their armed forces piecemeal.”³⁰ He urged changes in Soviet military organization and doctrine and pushed for new equipment assets (tanks and trucks) to carry out this mobile, deep theory.

The man who was most responsible for gaining support for this theory of deep operations and for reequipping the Soviet Army was Mikhail Tukhachevsky. Colonel Glantz underscored Tukhachevsky’s role in his study of the evolution of Soviet operational formations and deep battle. It was Tukhachevsky who, agreeing with Triandafillov and others, had the deep operations theory codified in the official field regulations with words like “penetration of the tactical zone of the defense by attacking units with widespread use of tank forces and violent development of tactical success into operational success with the aim of complete encirclement and destruction of the enemy.”³¹

It was Tukhachevsky who helped to bring on military mechanization beginning with the Five Year Plans of 1928. Malcolm Mackintosh wrote

that the offensive-minded and “fire-eating” Tukhachevsky did not have all the answers to combatting the power of the machine gun in the early 1930s, but “he envisaged the day when the tank would be able to outmaneuver infantry weapons, and set himself the task of providing the Red Army with the necessary armoured vehicles and supporting equipment.”³²

The irony of all this, of course, is that these deep operations advocates were not around at the beginning of the next war. Stalin purged these visionaries in 1937 and ensured that the Soviet Army would watch as the Germans (with their own visionaries like Manstein and Guderian) would be first to demonstrate *Blitzkrieg* to the rest of Europe. But where did Triandafillov and Tukhachevsky get the ideas for the basis of their deep operations—mass mechanization theories? Like most evolutionary thought, they got it from their own professional reading and from their immediate experiences in World War I, their Civil War (1917–22), and Russian military history.

The Russian World War I experience was not very positive and had little to offer doctrine writers. For example, they had 36 cavalry divisions entering the war and “their commanders made lavish claims about a new wave of Huns from the East overrunning everything before them and thrusting right into the heart of Germany. Reality was a bitter mockery of these hopes. In the first few days some Cossacks had penetrated into East Prussia and the German press began to feature lurid stories about wild Asiatics and a trail of rapine and pillage. Their success was short-lived.”³³

Colonel Glantz noted the importance of certain developments of the Russian Civil War. He pointed out that the concept of “mobile operations on a broad front in great depth, the rapid redeployment of forces over wide expanses of territory, the use of shock groups for creating penetrations, and the widespread use of cavalry forces as ‘mobile groups’ exploiting offensive success were all legacies of the [Russian] Civil War.”³⁴

“A classic example of an operational level mobile group acting just like an OMG can be seen in the breakthrough of the Polish front by a cavalry army south of Zhitomir in May–June 1920.”³⁵ Led by Semyon Mikhailovich Budyenny, the famous Red First Cavalry Army (*Konarmiya*) accomplished this great deed using a combination of stealth and shock rather than the previously accepted tactics of frontal attack and cavalry charge. Then once the breakthrough was realized, the mounted formation wreaked havoc on the enemy rear.³⁶

Chris Bellamy notes that “The Soviet and, before them, Imperial Russian armies have for a long time envisaged striking deeply into the

enemy deployment using raids.”³⁷ He cites two specific examples from earlier Russian military history which he suggests are easily identifiable antecedents of today’s OMG. General Gurko’s forward detachment of the Russo-Turkish War (1877) had the mission of seizing passes, destroying Turkish detachments which could be dealt with easily, and paving the way for the main body. Like today’s OMG, it was a large formation augmented with additional engineers. Once committed, the commander had great freedom to act within certain guidelines. There was also a realization of the psychological and moral effect such a unit could have on both the enemy and the local populace. The second example is General P. I. Mishchenko’s raid during the Russo-Japanese War of 1904–05. This deep raid by over 7,000 cavalymen was not totally successful or exactly analogous to current OMG doctrine, but it demonstrates some parallels. The unit was essentially independent and large enough to cause great concern in the enemy rear areas. It had a specific target which, if destroyed, would have affected the war both operationally and strategically. Mishchenko’s brave force, comprised mainly of great Cossack horsemen, seriously alarmed the Japanese.³⁸

We have not yet, however, gone back in time far enough in Russian-Asian history to discover another important antecedent and influence on modern Soviet operational maneuver—the Mongol hordes! Steven Stinemetz wrote that these thirteenth century warriors were experts at mobile warfare and espoused solely an offensive way of warfighting. They avoided head to head fighting whenever possible, preferring the surprise flank or rear attack or ambush and then exploitation of success.³⁹ Mongol warfare at its best, as characterized by Stinemetz, exhibits: “acquisition of strategic intelligence necessary for long-range maneuver; exploitation of deception to dispose the enemy’s reserves; intensification of internal dissent within the enemy’s forces; use of Mongol speed and endurance to achieve surprise; . . . expropriation of regional resources to supply Mongol forces; occupation of cities before effective resistance appeared; and timely coordination of wide-ranging detachments.”⁴⁰ Those characteristics are certainly reasonable goals of a modern OMG.

In another study, Chris Bellamy compared the army of Genghis Khan with the Soviet Army of today to demonstrate the Tartar-Mongol influence. He concluded that 1) Mongol operations were overwhelmingly offensive, 2) the Mongols were astute at a level of war higher than the pure tactical, 3) they preached mobility and high tempos of operations, 4) they believed in heavy firepower (more specifically, “arrow” power), 5) they bypassed enemy islands of resistance, 6) they sought surprise, 7) they considered

logistics for long range maneuver, and 8) they aimed for psychological advantages—all of which are OMG objectives and characteristics.⁴¹

Bellamy acknowledges that some of the similarities may be partly coincidental, but the links are present from the Khans to today. Tukhachevsky surely did not intentionally copy the Mongolian system nor consciously evolve deep OMG-type theory from the Tartar tradition, but the cultural and historical link is present and probably had an influence. In short, Bellamy noted that the “Mongol practices of breaking through the enemy defence before he has time to complete his preparations, encirclement, parallel pursuit, and getting behind the enemy all converge in the modern Soviet device of the OMG.”⁴² It is interesting to note that no less an authority of military history and theory than the Englishman B. H. Liddell-Hart also studied the Mongols in great detail in his search for support of his maneuver warfare theory.⁴³

We have now traced the OMG of today directly back to the Soviet mobile groups of World War II, to the deep operations theory of the between-war years, to the Russian Civil War cavalry raids, to Mishchenko’s raid in the Russo-Japanese War, to Gurko’s forward detachment of the Russo-Turkish War, and far back to the aggressive Mongols of the thirteenth century. There are striking similarities throughout to today’s OMG, although today’s OMG concept is also very much the direct result of an attempt to avoid the unbelievable casualties of recent attrition warfare brought about by modern lethal weaponry.

US Civil War Heritage

*The long-distance strategic cavalry raid represented a new concept for the use of mounted troops in war. Developing side by side with dismounted tactics which themselves emerged as a reaction to the significantly changed circumstances of the modern battlefield, it was no accident that the raid should also arise as part of the evolutionary process which transformed cavalry into an indispensable component of the major [American] Civil War field armies.*⁴⁴

Thus far we have reviewed only Soviet and Russian and Aslan history for precursors of the OMG concept. And although the Soviets proudly claim to be the fathers of the operational level of war—as an outgrowth of the great army groups and greater span of control of World War II—they often intimate that the deep operations theory is solely their brainchild. Ziemke wrote that the Soviets often conveniently omit previous references to operational maneuver and deep operations, although one author did note that “For the sake of historical accuracy it should be mentioned that

the question of deep battle [the tactical aspect of deep operations] was raised first by the English military theoretician Fuller late in 1918.”⁴⁵

The truth, of course, is that since the beginnings of warfare, there have been precious few really innovative ideas. Progress is a result of evolution brought about by improvements and changes in technology and weaponry and military leaders who have had the vision and courage to implement something a little different. The Soviets have not come to their OMG concept in a vacuum. They have looked naturally to their own history primarily. But they are and have been students of the military art in general and pay great heed to the thinking of others.

General J. F. C. Fuller, for example, had some influence on both German (especially Guderian) and Soviet (especially Tukhachevsky) military minds. In his Plan 1919, another effort at overcoming the horrible trench-attrition warfare of World War I, he suggested that the goal should not be to destroy personnel, but rather to destroy command and control apparatus. A proponent of massed, mechanized, smaller professional armies, he proposed that “a sudden eruption of squadrons of fast-moving tanks, which unheralded would proceed to the various enemy headquarters, and either round them up or scatter them. Meanwhile every available bombing machine was to concentrate on the supply and road centres. Only after these operations had been given time to mature was the enemy’s front to be attacked in the normal way, and directly penetration was effected, pursuit was to follow.”⁴⁶ The Plan was his mobile protected offensive power theory carried to a logical extension.⁴⁷

Fuller’s famous contemporary and colleague, Capt. B. H. Liddell-Hart cannot go unnoticed here either. Liddell-Hart also was a renowned proponent of maneuver and armored warfare formations. He was especially interested in the potentialities of mobile operations behind enemy lines, with special reference to raids on communications. He concluded “that there was no good reason why these mobile raids could not be duplicated on a larger scale against armies whose communications were vulnerable to attack by aircraft, airborne engineers, or tanks.”⁴⁸

Liddell-Hart analyzed that:

[W]hen acting in close cooperation with the army, the mobile army proved ineffective in its offensive action. . . . [W]hen used independently, for strokes against the enemy’s communications, the mobile arm was occasionally of great effect” and “the effect seems to have been greatest when executed in conjunction with action by

the main force, and when the enemy's force was on the move. Long range moves seem to have been more effective than close-range.⁴⁹

He opted for strikes deep in the enemy rear, not only to affect the minds of the enemy troops, but to really affect the mind of the commander.⁵⁰ This concept of deep strategic penetration was a logical and realistic outgrowth of his study of both the Mongols and the American Civil War.

The horse cavalry experiences and lessons learned from the American Civil War, I submit, have had an enormous impact on the formulation of subsequent maneuver doctrine, including deep operations and eventually the OMG concept. The American Civil War is probably the real beginning of the execution of deep, operational maneuver. Napoleon, perhaps the father (the first real executor) of operational art, the genius who was the first and best at methodically calculating the movements of giant corps to place them on the battlefield at the right place and time, never really looked past the collision of forces in decisive tactical battle. He had his operational reserves (usually cavalry) which often came onto the battlefield last to turn the tide and seal the victory, but he never really planned and executed deep operations which severed enemy lines of communications and facilities.⁵¹ Battlefields were still relatively small and Napoleon's stated objective was the massed enemy formations, the enemy's center of gravity. The weaponry changes from the Napoleonic era to the American Civil War—specifically rifled, breech-loading muskets and better artillery—made Napoleonic tactics obsolete (although used without success throughout the war with huge casualties) and forced military men to seek other ways to win battles.

A major innovation of the American North-South war was the “strategic long-distance raid.” The idea began slowly and was used initially almost solely by Confederate cavalrymen like J. E. B. Stuart, John Mosby, Nathan Bedford Forrest, John H. Morgan, and Turner Ashby. These horsemen went beyond their traditional missions of reconnaissance, surveillance, and security. They began to separate themselves from their main body by greater and greater distances and cause disruption wherever they went, focusing on enemy wagon trains and railroad lines. These highly mobile (as long as their horses lasted) bands were initially and usually quite small and rarely stayed in any one place very long.⁵²

Southerners were first to be good at cavalry raiding probably because they had more of an aristocratic and horse-loving tradition than the northerners, they had better horses initially, and they were fighting primarily on their own turf. As the war progressed, these cavalrymen got better and better at this new way to wage war in the enemy rear. Raids were conduct-

ed either as ends in themselves or as diversionary maneuvers designed to distract the enemy's attention from larger movements by the main army. "A raid could be pronounced a full success only when it made strategic as well as tactical contributions to the fortunes of the army:"⁵³

By the end of 1862 . . . Stuart and his cavalymen had successfully accomplished two raids by which they not only gained information about the Union Army's strengths and dispositions but also attained much needed supplies. Of equal importance, Stuart's raids greatly alarmed Federal leaders in Washington, causing them to draw off troops for the defense of that city.⁵⁴

Originally conceived and planned as long distance/extended reconnaissance missions, J. E. B. Stuart was the first to turn them into something much more important during the Seven Days Battles in Virginia in June of 1862. His second raid was in August of 1862 and successfully attacked Pope's headquarters. Neither raid was successful beyond some tactical intelligence, but they impressed both sides with their potential for greater use. It gave General Robert E. Lee the idea to send Stuart and his cavalry raiders into Pennsylvania, the first time a Confederate force had ventured onto northern soil; the immediate results were minimal, but the concept was now accepted as worth the risk. Stuart made four more raids during the Fredericksburg campaign.⁵⁵

Out west such horse soldiers as Forrest and Morgan were beginning to extend their influence on the battlefield beyond simple reconnaissance. Morgan and his 900 troopers became a thorn in the northern side in Tennessee during the summer of 1862 when he captured hundreds of prisoners and caused damage to the critical rail network. The first big "strategic" raid in the west was Van Dorn's 2,500-strong force which fell on General Grant's lines of communication in December of 1862 at Holly Springs, burned critical supplies, captured 1,500 prisoners, and forced Grant to modify his plans along the Mississippi River and Vicksburg.⁵⁶

The Federals were slow to learn this new facet of war, but they learned well. They built up a structure which began to produce better horses and better, more aggressive young cavalry leaders. Until 1863 they had not done very much long distance maneuvering and, like their southern counterparts, were not immediately successful. Their first large-scale attempt was when General Hooker sent Stoneman and 4,500 cavalymen around Lee's army during the Chancellorsville campaign. The results were slim, but provided encouragement to Union leaders for future forays.⁵⁷

Raids became more frequent, better organized with well-defined objectives, and included more and more cavalrymen. The forces became more powerful and more threatening to the enemy, and they became more destructive and of greater value “strategically.” Grierson’s raid through Mississippi into Louisiana in April of 1863 was an important diversion for Grant in his battle against Pemberton and the winning of the Vicksburg campaign. Covering 600 miles in sixteen days, Grierson and his 1,700 men destroyed several miles of railroad and 3,000 stands of small arms, captured 1,000 horses, and burned great quantities of supplies. In addition his raid confused Pemberton and occupied forces which Pemberton could have used elsewhere.⁵⁸ Every raid did not succeed; even when well planned, some raids failed miserably—like the ill-fated 4,000-man raid on Richmond led by Kirkpatrick and Dahlgren in early 1864.⁵⁹

Most of the remainder of the war was uphill for the Federals and downhill for the Confederates. General Phil Sheridan’s huge cavalry corps put a giant nail in the Southern coffin in May of 1864 when he not only defeated Stuart’s cavalry at Yellow Tavern but killed Stuart too. The Confederates, who conceived the long-range mounted raid, were to be repaid “with a vengeance for their ingenuity.”⁶⁰ Sheridan gained great fame, Custer made a name for himself, and, as the war drove on to its ultimate inevitable conclusion, “strategic” raids got bigger and threatened not only military targets but non-military targets as well.

The last raid of the war was, appropriately, the largest—it was really a “mounted invasion of the deep South.”⁶¹ James Wilson had seven cavalry divisions numbering over 13,000 troopers, the largest cavalry force of the war. Wilson, at age twenty-seven, was given the independent mission to go south, defeat Forrest, and destroy the South’s remaining ability to support the war logistically. In March–April of 1865, his great force swept south and accomplished all of its objectives, culminating with the taking of Selma and the defeat of Forrest’s forces, hastening the end of the war. Denison called it “one of the most extraordinary affairs in the history of the cavalry service.”⁶² Another author was so impressed that he labeled it *Yankee Blitzkrieg*.⁶³ The destruction caused was overwhelming for the time—7 iron works, 7 foundries, 7 machine shops, plus several factories, arsenals, magazines, 35 locomotives, 565 railroad cars, 320 cannon, and immense quantities of supplies, with only a small loss of manpower.⁶⁴

The “strategic” raid had matured as an accepted, meaningful, valuable part of warfare—at least in the United States. Whether on long or short range expeditions, raiders “were to strike unexpectedly and decisively at assigned targets, to avoid battle with enemy forces of equal or larger size

when at all possible . . . to create maximum damage to enemy resources in minimal time.”⁶⁵ Wilson’s raid culminated the evolution of the raid. “The Federal cavalry which independently invaded the last stronghold of the Confederacy bore little resemblance to the awkward, inexperienced, and divided branch of the services which was almost helpless during the early stages of the conflict.”⁶⁶

Transfer of US Heritage to Europe

*Few wars have so fired the popular imagination as the American Civil War. . . . A surprising number of European soldiers traveled to America to observe the conflict, and periodically since 1865 the Civil War has been the object of special study in the major armies of Europe. Exactly what was learned, how much military doctrine actually was influenced by the Civil War, is not easy to determine.*⁶⁷

*Nor was it surprising that Red Army leaders should search the world’s press and books for forward-looking military writers and thinkers, and that a number of them (including Captain Liddell-Hart) should have been approached to enlist their knowledge, experience, and imagination in the service of the new Red Army.*⁶⁸

How was this American Civil War innovation transferred to Europe? Jay Luvaas, the prolific writer and noted American historian, detailed the many legacies of this war and specifically how its lessons were passed to others in his *The Military Legacy of the Civil War*. Many European visitors observed at least parts of the war. Because of travel constraints, they mostly saw the Eastern actions, but had access to the stories of the Western fighting. One German officer named Scheibert was impressed with the cavalry actions he had seen and heard about although he was not totally sold on the value of the strategic raid. He thought that the results of such raids were “exaggerated” and “even when executed against untrained troops and armies dependent upon supply depots, in a country with few railroads and an inadequate telegraph system, and where thick forests could mask the movements of entire armies—even under these ideal conditions the Civil War cavalry raids had brought only limited success. In Europe, where such favorable conditions did not exist, cavalry raids were bound to be still less effective.”⁶⁹ Scheibert was impressed with very few things worth recommending to his army. It is an irony that the idea of the strategic raid which eventually (at least indirectly) evolved to the *Blitzkrieg* was mainly passed on to the Germans by the British gentlemen Liddell-Hart and Fuller.

General von Bernhardt did pick up on the concept much later. Luvaas points out that he alone among the Germans placed much emphasis upon the strategic raid, arguing that if modern weapons had limited tactical action of cavalry, its strategic importance had if anything increased.⁷⁰ Bernhardt, in discussing the future of cavalry (circa 1909) predicted that cavalry “will be called upon for attempts against the enemy’s communications,” which is strategically important and “these will be all the more important in cases where the district we are fighting over is too poor to supply the enemy’s forces, or where operations have assumed a stationary character, as before Fredericksburg, Paris, and Plevna, and it becomes desirable to hinder the use of the railways for the transport of troops or evacuation of supplies.” These “undertakings . . . will frequently assume the character of ‘raids’ in which the essential purpose is to cover great distances rapidly, often with the sacrifice of all communications with one’s own forces, to appear suddenly at previously selected positions, and after completion of one’s immediate object to disappear suddenly, before the enemy can bring overwhelming numbers against the assailant.”⁷¹

The French observers as a group were somewhat more appreciative of what they had seen. Luvaas recounts that several were especially impressed by the strategic raid; one officer recommended to his fellow officers to read “what had been written on the war of Secession, in which the Americans have employed this kind of tactic on a very large scale, with much success.” Another Frenchman “cited the Civil War raids to show what could still be accomplished by way of seizing enemy convoys, destroying vital railroads, and cutting telegraphic lines. In Europe, ‘populated, cultivated and civilized as it is,’ it might not be possible to emulate the raids of Stuart, Stoneman, Sheridan, and Morgan, but this did not mean that independent cavalry could not perform many useful strategic services in future wars.”⁷² P. Poulet, a military journalist, predicted that future cavalry would include not only reconnaissance, but “independent action against enemy communications and supplies”—all as a result of his study of the Civil War.⁷³

A highly respected Canadian, Lt. Col. George Denison (who was commissioned by the Russian Tsar and had an influence on Gurko’s actions in 1877), did not directly observe the Civil War, but subsequent interviews with many Civil War officers influenced his writings and feelings about cavalry which enjoyed widespread reading in Europe and won over many adherents. Denison advocated that a duty of cavalry was “to make great raids on the enemy’s communications. There is no need to enter into details, but we may simply refer to the raids of Stuart, Forrest,

Morgan, Wilson, and Grierson . . . they might be used for turning movements around a flank.”⁷⁴

The British had several eyewitnesses to the war. Most of them were not enamored with what they had seen, but Maj. (later Sir) Henry Havelock was the first to endorse “wholeheartedly” the cavalry tactics he had seen. He appealed to his army to rid itself of current continental cavalry doctrine and adopt the organization and tactics of Sheridan. He thought that those tactics, including the strategic raid, would be especially useful in India.⁷⁵

Liddell-Hart and Fuller, of course, were not direct observers of the American Civil War, but their intense study of the war and subsequent works had perhaps the greatest influence on European military thought. Their theories on armored warfare, while not exactly alike, were based on maneuver, were largely influenced by the mobile strategic cavalry raids of the American Civil War, and had great influence on subsequent maneuver warfare proponents in Germany (Guderian and others) and the Soviet Union (Tukhachevsky for sure).⁷⁶

It is then well documented that European military men were very much aware of the strategic raid lesson learned from the American Civil War. It is obvious that some heeded the lesson and some did not. For example, Baron Helmuth von Moltke, the Prussian Chief of Staff, was not at all impressed with the American experience. He reputedly stated that “the affair in America was nothing but a matter of two armed mobs chasing each other around the country, from which nothing could be learned.”⁷⁷ It is certain that both the Prussians and the Austrians during 1866 did not choose to apply any lessons learned during their short, brutal war. Arthur Wagner, in his review of the Koniggratz campaign comes down heavily on both sides: “Their use of cavalry showed either an ignorance of, or contempt for, the experience of the American armies” and “Both armies seem to have been afraid to let their cavalry get out of sight. . . . If they had studied the great raids of the American cavalry leaders, they would have learned a lesson which there were excellent opportunities to apply.”⁷⁸ Wagner further states that “It is easy to imagine what would have been the effect upon the Prussians during their advance to the Danube if a Stuart, a Forrest, or a Grierson had operated against the railways upon which the supply of the invading army necessarily depended.”⁷⁹

In 1889, Wesley Merritt, Sheridan’s second-in-command during the Appomattox campaign, wrote in an English journal that the English need to pay greater heed to the cavalry lessons of the American Civil War. He stated that the Russians were profiting better by the American experience.

“In 1884 a former British military attaché at St. Petersburg had written that ‘for some years past influential officers in the Russian Army have constantly advocated that European cavalry of the present day, equipped and drilled after the old-fashioned methods, is unsuited to the requirements of modern warfare, and have insisted that a cavalry . . . taking as its model and example, both as to armament and method of fighting, the American cavalry of the Civil War is the kind of cavalry which will make its mark in future warfare.’”⁸⁰

The days of horse cavalry became numbered with the advent of mechanization, and all of the lessons of American Civil War cavalry were not to have lasting benefit. But the strategic, long-distance raid had its real genesis here, and, coupled with the élan, daring, risk-taking excitement of horsemen on the move, began to make inroads (albeit slowly in some armies) into accepted military thought. The optimum raid was fast paced, independent, well-coordinated, with stated objectives in the enemy rear, used surprise, and operationally gained strategic goals—characteristics not unlike today’s OMG.

Thus it is that the vaunted Soviet OMG concept, shaped partly by the Mongol operations of the Russian past, also draws on the American Civil War cavalry strategic raid. Nothing succeeds like success, and this mobile, raiding, deep attack concept has seen several successes which enhance its popularity and use—from the aforementioned American Civil War raids to isolated Russian use by Gurko and Mishchenko to Budyenny’s Russian Civil War deep exploits to the German *Blitzkrieg* to the Russian mobile groups of World War II. The concept, when executed well, works! Current Soviet plans include its use—but will it work on today’s and the future’s European battlefield? There seems to be a lot of agreement that operational maneuver as earlier defined, and used successfully since the American Civil War, and currently best expressed as the OMG is **the** way to win. There is no agreement, however, on whether or not it **can** work.

Will It Work Today?

Charles Dick is not sure that the Soviets can execute their operational maneuver theory. The OMG concept requires independent units whose leaders can operate out of communications with the headquarters, show initiative, and yet mechanically move through the enemy rear areas to achieve specified objectives. “In effect, the Soviet High Command would like initiative to be something that can be turned on and off like a tap. In practice, turning it on tends to prove difficult, not in the least because of a natural Soviet tendency toward passivity, reinforced by a system which

usually rewards caution rather than boldness.”⁸¹ Dick also lists conflicts between 1) the requirements of speed versus the need for realistic, detailed planning, and 2) the need for high tempo thrusts versus destroying enemy tactical units they may encounter. He also questions Soviet capability to “coordinate” (or “synchronize” in AirLand Battle terms) all the pieces of the OMG necessary to make it work—specifically artillery support of the high speed advance, air defense, electronic warfare, close support aircraft, and command and control.⁸²

Dick is not the only doubter. Another critique lists some potential vulnerabilities of the OMG, specifically: 1) the speed and momentum required to continue to thrust deep as a large unit conflicts with the idea to break off smaller units to take objectives along the way; 2) the logistics required to support the fast moving, deep attacking OMG may simply be beyond the capability of the Soviet logistical system (something they could not set up without being detected by NATO intelligence); 3) the reliance on airpower which is dependent on weather, must overcome NATO airpower, must be superbly integrated with land forces with great command and control links, and cannot be as successful outside the range of their attack helicopters; 4) penetration is necessary by first echelon forces, and, in order to succeed, must achieve at least tactical surprise; and 5) the officer corps may not be talented enough or prepared enough to carry out this ambitious concept.⁸³ “A sociological shortage of initiative makes commanders vulnerable to indecision when OMGs encounter unexpected threats.”⁸⁴

Shields, while noting that the Soviets find the OMG and deep battle so attractive (because of a positive history and their assessment of current NATO defenses), also raises questions about some areas which could potentially defeat the concept: 1) can the deep force be resupplied enough to keep going deeper?; 2) can it defend itself well enough from high quality aircraft?; 3) can it avoid major pockets of resistance?; 4) can it avoid becoming a stationary target (for example, at bridge crossings or when blocked by refugee traffic)?; 5) can Soviet command and control systems minimally support the operation?; 6) can they hide the mobilization they must do and still achieve the surprise they must have?; and 7) what if the NATO defenses prevent the penetration they must have in order to exploit deep?⁸⁵

Current US AirLand Battle “deep attack” operational maneuver doctrine faces some of those same questions. As conceived, deep strike units must “rapidly transit the FLOT, drive deep, conduct lethal and violent attacks on the move to destroy high-value elements of the uncommitted echelons as they are encountered, refuse decisive engagement, and prepare for commitment to continue the attack either on the rear of the first-echelon

divisions or to the depth of the enemy's formations.”⁸⁶ The difference is that where the OMG has several terrain objectives, the US deep attack is focused on enemy forces rather than terrain.⁸⁷ Col. L. D. Holder suggests that the deep attack can go after more than the enemy. It is inherently risky to attempt such attacks, but “the potential for success is so great that such operations will be justified in many instances. When directed against high-value targets such as enemy reserves, command posts, supply dumps, or terrain choke points, maneuver forces can produce the windows for offensive action critical to defensive success or preserve the initiative for offensive operations.”⁸⁸ The idea of the deep attack is to make the enemy change or deviate from his plan and pause to counter this new unplanned threat to his unit or his lines of communication, to make him reactive rather than proactive.⁸⁹ It seems that both sides—the Soviets and the US—have evolved similar doctrine, a situation which could result in stalemating each of these aggressive, theoretically supported, historically developed and carefully constructed operational maneuver forces. Who that would ultimately benefit is beyond the purview of this paper, but if the Soviet OMG capability is negated, then the Soviet ability to overwhelm Western Europe in a massive single stroke may be negated. In order to maximize the use of the OMG, it needs to be used as a “daring thrust” and introduced within the first two days of a conflict. That would create the intermingling of forces desired which the Soviets hope would negate the possible use of nuclear warheads.⁹⁰

Whether or not the US (or NATO forces) could actually pull off deep operational maneuver is open to great debate. War game simulations have been testing the hypothesis for several years. Col. William Brinkley considered the possibility of using a division-size US Army OMG in a European environment and highlighted potential problems: we cannot maintain secure lines of communications upon which would depend evacuation or wounded and equipment to repair; we cannot get forward enough supplies (specifically ammunition and fuel) by airlift alone to maintain the continual fighting capability; and we basically do not have the force structure to allow the commitment of a maneuver strike force deep in the enemy rear which probably will not return as an effective fighting force.⁹¹ We “do not have a division to waste as a deep operation OMG if a conventional nonnuclear war occurs in Western Europe.”⁹² Brinkley's conclusion is based on a theoretical OMG-type 150-kilometer-deep move over a seven-day period across the FLOT using M1 and M2-equipped units. He recommends more limited goals, specifically a maximum of fifty kilometers or twenty-four

hours of operation on shorter raids which could be supported by organic logistical assets and capabilities.⁹³

The answer, of course, is that no one is absolutely sure if the OMG (Soviet), deep attack (US) concept will work. School is still out (and may never be called into session). History is replete with examples of bold, audacious operational maneuver being critical to victory—Grierson's raid, the German *Blitzkrieg*, airborne drops into Sicily, Slim's surprise move across the Irrawaddy in Burma, the great amphibious landing at Inchon. These are the great exploits which make men famous and win wars. There does appear to be agreement of both Soviet and US thinkers that operational maneuver is desirable, and that the OMG-type deep attack concept has potential to meet the needs of both sides. Both are diligently working to refine the concept and to school its officers in how to execute it.

In order for the concept to work, it does seem that a whole host of variables have to be just right, including surprise introduction, the timing of the introduction, exceptionally accurate intelligence, an opening in the enemy defenses, overwhelming air power, enough maneuver space, an enemy rear area that will not or cannot put up much of a fight, the synchronization of several variables (like air defense, engineer, artillery and electronic warfare assets, and command and control), a big and powerful force with the freedom to go where the leader deems necessary, and a plan of support that will keep it going as long as it takes.

That sounds like mission impossible. That sounds like a tall order for even the most fine-tuned, superbly-trained army. Yet it may be the key to victory in a future conflict—the side that can execute this concept most effectively may become a winner. This operational maneuver concept has worked since American Civil War days, and is viable today. We must continue to study it and refine it and prepare to execute it if called upon. You can bet the Soviets will!

Notes

1. Lt. Gen. Brialmont, *Combat Tactics of Cavalry*, translated from the French by the US Infantry and Cavalry School (Fort Leavenworth, KS: 1893), III.

2. Brialmont, IV.

3. Department of the Army, Field Manual (FM) 100-5, *Operations* (Washington, DC: 1986), 10; L. D. Holder, “A New Day for Operational Art,” *Army* (March 1985): 24.

4. John F. Meehan III, “The Operational Trilogy,” *Parameters* (Autumn 1986): 17.

5. Col. William J. Bolt and Col. David Jablonsky, “Tactics and the Operational Level of War,” *Military Review* 67, no. 2 (February 1987): 4.

6. Department of the Army, FM 100-5, 11-14.

7. FM 100-5, 12.

8. FM 100-5, 12.

9. Col. Thomas E. White and Maj. John D. Rosenberger, “The Armored Cavalry Regiment: Catalyst for Operational Success,” *Armor* (March–April 1986): 11.

10. Holder, “A New Day for Operational Art,” 27.

11. Edward N. Luttwak, “The Operational Level of War,” *International Security* (Winter 1980): 66, 70–72.

12. Luttwak, 66.

13. Charles J. Dick is a renowned authority. Among his articles used in my research: “Soviet Operational Maneuver Groups: A Closer Look,” *International Defense Review* 6 (1983): 769–76; “Soviet Operational Concepts—Part I,” *Military Review* 65, no. 9 (September 1985): 29–45; “Soviet Operational Concepts—Part II,” *Military Review* 65, no. 10 (October 1985): 4–19; and United Kingdom Ministry of Defense, *The Army Field Manual*, vol. II, part 2, Soviet Operations (London: 1986).

14. Dick, “Soviet Operational Maneuver Groups: A Closer Look,” 34–42.

15. The similarity of AirLand Battle doctrine with Soviet doctrine has been noted by several authors, including Capt. Stephen P. Aubin and Capt. Robert E. Kells Jr., “AirLand Battle Doctrine: Soviet Strategy Revisited,” *Military Review* 65, no. 10 (October 1985): 42–53.

16. Maj. Gen. Edward B. Atkeson, “The Operational Level of War” *Military Review* 67, no. 3 (March 1987): 30.

17. Dick, “Soviet Operational Maneuver Groups,” 773.

18. Dick, 775.

19. The term “mobile” has taken on a new meaning in modern times. Unlike previous eras when the only mobile arm was the cavalry—it was mounted and could get from one place to another relatively quickly while everyone else was on foot—or earlier in this century when motorized and mechanized units (and a few diehard cavalry units) “rode” into combat while much of the infantry walked, “mobile” alludes more to mission than to mode of travel. Nearly everyone on today’s battlefield (in modern armies) is mobile in that they can get

from one place to another with some speed, but the mission of nearly everyone is to fight the enemy in battle when he can be found. The OMG is a “mobile” group which needs to avoid decisive fighting with the enemy that might stop its momentum and “mobility”—it must be continuously “on the move” to achieve its objectives of surprise, psychological shock, and depth. Mobility, in the OMG sense, does not refer so much to getting from one place to another, but to an overriding mission of maintaining continual mobility, movement, maneuver and thus momentum. Chris N. Donnelly, “The Soviet Operational Maneuver Group: A New Challenge for NATO,” *Military Review* 61, no. 3 (March 1981): 43–60; also in *International Defense Review* 4 (1982): 1177–86. The citing here is from a School of Advanced Military Studies (Fort Leavenworth, KS) reprint of several Course 3 (1987–88) articles, 140–45.

20. Dick, “Soviet Operational Maneuver Groups: A Closer Look,” 773; and United Kingdom Ministry of Defense, *Army Field Manual Volume II, Soviet Operations* (1986): 6–17.

21. Dick, 773–75.

22. Maj. Henry S. Shields, “Why the OMG?” *Military Review* 65, no. 11 (November 1985): 8.

23. Capt. Guy C. Swan, III, “Countering the Daring Thrust,” *Military Review* 66, no. 9 (September 1986): 52.

24. Lt. Col. David M. Glantz, “Soviet Operational Formation for Battle: A Perspective,” *Military Review* 63, no. 2 (February 1983): 11.

25. For more detailed studies of forward detachments, see William F. Scott and Harriet Fast Scott, “The Historical Development of Soviet Forward Detachments,” *Military Review* 67, no. 11 (November 1987): 26–35; Swan, “Countering the Daring Thrust,” 42–53; and Chris Bellamy, “Antecedents of the Modern Soviet OMG,” *RUSI* (September 1984): 50–57.

26. Richard Armstrong, “Mobile Groups: Prologue to OMG,” *Parameters* (Summer 1986): 59.

27. Bellamy, “Antecedents of the Modern Soviet OMG,” 51.

28. Glantz, “Soviet Operational Formation for Battle,” 10–11.

29. Earl F. Ziemke, “The Soviet Theory of Deep Operations,” *Parameters* (June 1983): 23.

30. V. K. Triandafillov, *Nature of the Operations of Modern Armies* (Moscow-Leningrad: 1929), trans. William A. Burhans, RUSS-ENG (Woodbridge, VA: Translations, Inc, 1993). Special course reprint for the School of Advanced Military Studies, 186–87.

31. Glantz, “Soviet Operational Formation for Battle,” 4.

32. Malcolm Mackintosh, “The Development of Soviet Military Doctrine Since 1918,” in *The Theory and Practice of War*, ed. Michael Howard (Bloomington, IN: Indiana University Press, 1975), 253.

33. John Ellis, *Cavalry: The History of Mounted Warfare* (New York: Putnam, 1978), 177.

34. Glantz, “Soviet Operational Formation for Battle,” 3.

35. Bellamy, “Antecedents of the Modern Soviet OMG,” 50.

36. Norman Davies, *White Eagle, Red Star, The Polish-Soviet War, 1919–1920* (New York: St. Martins, 1972), 122–25, and Ellis, *Cavalry*, 180–81.
37. Bellamy, “Antecedents of the Modern Soviet OMG,” 50.
38. Bellamy, 51–57.
39. Steven D. Stinemetz, “Clausewitz or Khan? The Mongol Method of Military Success,” *Parameters* (Spring 1984): 71–80.
40. Stinemetz, 78.
41. Chris Bellamy, “Heirs of Genghis Khan: The Influence of the Tartar-Mongols on the Imperial Russian and Soviet Armies,” *RUSI* (March 1983): 52–55.
42. Bellamy, 59.
43. Bellamy, 59.
44. James A. Schaefer, “The Tactical and Strategic Evolution of Cavalry during the American Civil War” (PhD dissertation, University of Toledo, 1983), 196.
45. Ziemke, “The Soviet Theory of Deep Operations,” 24.
46. Maj. Gen. J. F. C. Fuller, *The Conduct of War 1789–1961* (New Brunswick, NJ: Rutgers University Press, 1968), 243.
47. Col. J. F. C. Fuller, “Tactics and Mechanization,” *Infantry Journal* (May 1927): 190–98.
48. Capt. B. H. Liddell-Hart, “Analysis of Cavalry Operations in the American Civil War with Special Reference to Raids on Communications,” which appears as Appendix B of Jay Luvaas, *The Military Legacy of the Civil War* (Chicago: Chicago University Press, 1959). Liddell-Hart’s study was first printed in 1935. The quote here is from page 223.
49. Liddell-Hart, 243.
50. Liddell-Hart, 244.
51. Schaefer concurs with this observation but notes the following in the interest of accurate history: “The idea of using cavalry for raids did not spontaneously enlighten the minds of cavalry officers or commanding generals at the outset of the [American Civil] war. . . . Useful antecedents for the development of the long-distance raid were almost nonexistent in American military experience. . . . Nor did the European tradition offer guidance. To be sure, raids by cavalry were not unknown in continental military campaigns. Frederick the Great had twice seen Berlin captured in his rear by Austrian and Russian light cavalry, and French armies had suffered from allied cavalry raids to disrupt reserves and supply lines. But Napoleon, the paradigm of military excellence, had not sent his cavalry on large-scale raids, or on any movements at great distance from his main force. He had retained most of his cavalry with his main force to strike the final, decisive blow and to pursue the beaten enemy.” Schaefer, “The Tactical and Strategic Evolution of Cavalry during the American Civil War,” 197.
52. Schaefer, 197–98.
53. Edward G. Longacre, *Mounted Raids of the Civil War* (New York: A. S. Barnes, 1975), 12–13.

54. Mary Lee Stubbs and Stanley Russel Connor, *Armor-Cavalry-Part I*, Army Lineage Series (Washington, DC: Office of the Chief Historian of the US Army, 1969), 18.
55. Schaefer, "The Tactical and Strategic Evolution of Cavalry during the American Civil War," 198–200.
56. Schaefer, 201–06.
57. Schaefer, 207–09.
58. Schaefer, 212–18.
59. Schaefer, 224–27.
60. Schaefer, 227.
61. Schaefer, 239.
62. Lt. Col. George T. Denison, *A History of Cavalry—from the Earliest Times with Lessons for the Future* (London: Richard Clay and Sons, 1877), 386.
63. James P. Jones, *Yankee Blitzkrieg: Wilson's Raid through Alabama and Georgia* (Athens, GA: University of Georgia Press, 1976).
64. Longacre, *Mounted Raids of the Civil War*, 325.
65. Longacre, 12.
66. Schaefer, "The Tactical and Strategic Evolution of Cavalry during the American Civil War," 244.
67. Luvaas, *The Military Legacy of the Civil War*, ii.
68. Mackintosh, "The Development of Soviet Military Doctrine since 1918," 252.
69. Luvaas, *The Military Legacy of the Civil War*, 66.
70. Luvaas, 140.
71. Lt. Gen. Frederick von Bernhardi, *Cavalry in Future Wars*, trans. Charles Sydney Goldman (London: John Murray, 1909), 33–34.
72. Luvaas, *The Military Legacy of the Civil War*, 148.
73. Luvaas, 153.
74. Denison, *A History of Cavalry*, 537.
75. Luvaas, *The Military Legacy of the Civil War*, 111.
76. Richard Simpkin, *Deep Battle* (London: Brassey's Defence Publishers, 1987).
77. Schaefer, "The Tactical and Strategic Evolution of Cavalry during the American Civil War," 254.
78. Arthur L. Wagner, *The Campaign of Koeniggraetz, A Study of the Austro-Prussian Conflict in the Light of the American Civil War* (Fort Leavenworth, KS: 1889), School of Advanced Military Studies reprint, 88–89.
79. Jay Luvaas, "Cavalry Lessons of the Civil War," *Civil War Times Illustrated* (January 1968): 27.
80. Dick, "Soviet Operational Concepts - Part I," 43.
81. Dick, 43.
82. Dick, 43–44.
83. Swan, "Countering the Daring Thrust," 48–50.

84. Swan, 51.
85. Shields, "Why the OMG?" 8–9.
86. Col. William G. Hanne, "AirLand Battle: Doctrine, not Dogma," *Military Review* 63, no. 6 (June 1983): 15; and Lt. Col. John S. Doerfel, "The Operational Art of the AirLand Battle," *Military Review* 62, no. 5 (May 1982): 3–10.
87. Hanne, 15; Doerfel, 3–10.
88. Lt. Col. L. D. Holder, "Maneuver in the Deep Battle," *Military Review* 62, no. 5 (May 1982): 56.
89. Hanne, "AirLand Battle: Doctrine, not Dogma," 16.
90. Swan, "Countering the Daring Thrust," 46–47.
91. Col. William A. Brinkley, "The COST across the FLOT," *Military Review* 66, no. 9 (September 1986): 40.
92. Brinkley, 40.
93. Brinkley, 40–41.

Chapter 12

Operational Art: How Clausewitz and Isserson Turn American Strategy into Tactical Action

William J. Denn

The president—after weeks of consultation with the joint chiefs, national security advisor, cabinet officials, and others—has reached a conclusion. Instability in a particular country featured increasingly in the news is a threat to vital US national interests. The danger is real that the country will become a safe haven for terrorists, and the president will announce in a televised address that the United States will deploy a force to help train the foreign country’s military and enhance its institutional capacity to defeat the insurgents. Within weeks, teams are on the ground advising local military forces on counterinsurgency operations. These actions are a direct result of the president’s declared objectives. However, the translation of the president’s objectives into military action is a complex and often difficult process. Converting these political objectives into direct, tactical action is the role of what the US Army calls “operational art.” But while strategy and tactics have been studied independently for millennia, operational art theory is a comparatively young concept. Indeed, the operational level is a surprisingly new feature in US Army doctrine, only formally emerging in the 1980s.

The US Army defines operational art as “the pursuit of strategic objectives, in whole or in part, through the arrangement of tactical actions in time, space, and purpose.” Operational art now forms a fundamental element of Army doctrine—as depicted in the simplified vignette above and practiced in real-world scenarios in all of America’s modern wars. Yet in no place within current doctrine does the US Army make explicit reference to operational art’s theoretical roots. Theory and history trace three inherent concepts within this definition: first, war as an extension of politics; second, the chaotic and unpredictable nature of war; and third, the distributive character of modern warfare. These concepts are derived from an amalgamation of past theorists, particularly the Prussian Carl von Clausewitz and Soviet commander Georgii Isserson. By understanding

This chapter is a reprint of Maj. William J. Denn, “Operational Art: How Clausewitz and Isserson Turn American Strategy into Tactical Action” (commentary, Modern War Institute, West Point, NY, 30 December 2016).

these theories and concepts, military planners can gain a greater appreciation for doctrine's concept of the operational art in order to apply its theoretical underpinnings to modern military operations.

War as an Extension of Politics

The goal of military operations derived from operational art is, foremost, "the pursuit of strategic objectives," but where does the military receive guidance as to what those objectives are? The answer may seem obvious, but the institutionalization of the political nature of war was not generally held until the widespread publication of Carl von Clausewitz's *On War* in the mid-nineteenth century.

Clausewitz, a Prussian army officer, observed during the French Revolution and Napoleonic Wars tremendous social and political upheaval. These changes accelerated an evolution in the relationship between the military and the government that occurred over a millennium in Europe. According to historian Charles Tilly, in medieval Europe, the military and monarchy were much the same: the king and his knights were the political powerholders. The king directly led his troops into battle; politics and warfare were innately linked. Yet, as nations and bureaucracies grew to support large national armies conducting large-scale campaigns by a professional military class (rather than the king), a gap developed between political "reason" for wars and military objectives. Clausewitz described the variance between these two elements metaphorically as two among three tendencies in his "paradoxical trinity." Political reason and military objectives are examples of the variable relationship between the tendency of war as an instrument of policy (the realm of the government) and war as a play between chance and probability (the realm of military commanders). The gap between the two tendencies has only increased with modern war.

Prior to Clausewitz, theorists mostly wrote about the proper execution of warfare on the battlefield; but Clausewitz sought to describe what he saw as the nature of war itself—the relationship between military objectives and the political goals of the government—without which "battle" would be pointless. As Clausewitz described, "The political object is the goal, war is the means of reaching it, and means can never be considered in isolation from their purpose." Based on this connection Clausewitz observed that "the political object—the original motive for the war—will thus determine both the military objective to be reached and the amount of effort it requires." His logic would derive his well-known observation that war is merely the continuation of policy by other means.

When doctrine articulates that the purpose of operational art is the pursuit of strategic objectives, this concept is a derivative of Clausewitz's theory. Political rationale determines political and strategic objectives, which in turn frame military objectives. This notion is an important concept describing the nature of war itself—a contribution to a theory of war. Clausewitz's concept would have a tremendous influence on the Prussian and later German army. By the early twentieth century, the German army was a widely emulated model—its doctrine was absorbed by many foreign armies, including that of the United States after World War I.

The Chaotic and Unpredictable Nature of War

The second concept inherent in the definition of the operational art is that the nature of war is chaotic and unpredictable. This concept is inferred by operational art overcoming “the ambiguity and intricacies of a complex, ever-changing, and uncertain operational environment,” also a Clausewitzian concept. Clausewitz's contemporaries, like the Swiss general Antoine-Henri Jomini, were products of the Enlightenment era. The Enlightenment was characterized as a celebration of human reason, where all phenomenon, when applied through the scientific method, could be reduced to basic principles—Newtonian physics, for example. The same scientific methodologies were applied to the study of war. Writers like Jomini advertised that their scientific analysis had discovered fundamental principles of war that, when applied correctly, could lead to victory. Clausewitz, among others, resisted this approach. The zealotry of eighteenth-century Enlightenment thinking resulted in a Counter-Enlightenment movement, particularly in Germany. Historian Azar Gat explains that this movement challenged the fundamentals of the Enlightenment's worldview: “The world was for them not basically simple but, on the contrary, highly complex, composed of innumerable and unique elements and events, and always in a state of flux.”

Clausewitz's *On War* reflects the ideas of the Counter-Enlightenment movement. Clausewitz explains, “War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty.” Clausewitz also describes war as “the realm of chance. . . . Chance makes everything more uncertain and interferes with the whole course of events.”

In stark contrast to the ideas of Clausewitz's contemporaries, his theory of war was deeply rooted in the complexity and unpredictability of war. Today, US Army doctrine recognizes Clausewitz's inherent uncertainty of warfare by appreciating the importance of skill, knowledge, experience,

judgment, and an agility of mind to help compensate for the chaotic and unpredictable nature of the battlefield.

The Distributive Character of Modern War

The third concept, the distributive character of modern war, reflects operational art's approach to arranging tactical actions in time, space, and purpose. Modern war is characterized by the employment of forces in deep distributed operations. The characteristic of warfare prior to modern operations was that of a strategy of a "single point." According to Soviet military theorist Georgii Isserson, for centuries armies marched and came together for battle in a dense mass on a single point in the theater of operations; this was the most efficient use of force during this period due to limitations of logistics and command and control. This strategy reached its apex during the Napoleonic Wars as corps maneuvered separately but concentrated together in battle.

By the US Civil War, however, modern conditions altered the logic behind a strategy of a "single point." Concentrated armies were penalized with very high casualties due to the increased lethality of modern firepower. Inversely, modern firepower and trench defenses incentivized armies to disperse their forces. Other innovations, like the railroad and telegraph, empowered armies to conduct widely dispersed yet coordinated operations. These changes resulted in a profound revolution in a general theory of warfare that elevated maneuver as the dominant aspect. Gen. Ulysses S. Grant's 1864–65 campaign serves as an example of this new form of warfare characterized by coordinated, distributed operations driven by large-scale maneuver. Grant's campaign consisted of several distributed operations: in the West, Sherman drove along one axis with three armies toward Atlanta; supporting Sherman, an army under Nathaniel Banks conducted an operation from Alabama toward Atlanta; all the while Grant directed three operations against Gen. Robert E. Lee in Virginia. These five operations, aggregating their effects, robbed the Confederates of freedom of action against the North. The resulting paradigm that emerged was that forces should be employed in deep distributed operations—tactical actions coordinated in time, space, and purpose.

Soviet general Mikhail Tukhachevsky articulated the concept of distributed operations in 1923 as "a series of destructive operations conducted on logical principles and linked together by an uninterrupted pursuit may take the place of the decisive battle." Isserson, a brigade commander and contemporary of Tukhachevsky, codified this concept into Soviet doctrine by 1936 in *The Evolution of Operational Art*. "Under present condi-

tions,” he wrote, “we must refer not to a series of successive operations, but to a series of *successive strategic efforts, and to a series of separate campaigns in a single war.*” Coinciding with Isserson, the German army, under General Hans von Seeckt, also developed its own distributed, maneuver-focused doctrine during the interwar period: *Bewegungskrieg* (maneuver warfare). As German doctrine highlighted, “the goal of modern strategy will be to achieve a decision with highly mobile, highly capable forces, before the masses have even begun to move.”

In both the Soviet and German cases, the linking of multiple battles through operations and campaigns to achieve strategic objectives resulted in a conceptually new level of war—the operational level. While the US Army certainly fought distributed, maneuver-centric operations during World War II, it would not adopt conceptual frameworks like the “operational level” of war into its own doctrine until the early 1980s. During the post-Vietnam era, Col. Huba Wass de Czege developed the School of Advanced Military Studies (SAMS) to study theory and large-unit operations to cultivate operational art doctrinal concepts. The result of SAMS’ studies of Clausewitz, Isserson, and historical campaigns, was a 1986 revision of US Army Field Manual 100-5, *Operations*, that included the concepts of distributed operations at the operational level of war. These concepts continue to influence US Army operational art, especially in current doctrine like Army Doctrine Publication 3-0, *Unified Land Operations*.

Why Theoretical Roots Matter

In order for military planners to apply judgment in the application of the US Army’s concept of operational art, a historical and theoretical understanding of its origins is critical. In an era of newly emerging threats that are combated in rapidly changing domains, conceptualizing operational planning as a mere link in a chain of orders is a mistake. Commanders and operational planners that understand their roles in translating strategic, political objectives into tactical actions will perform better because of that context. And that context must necessarily be based on a recognition that operational art is rooted within a rich foundation of theories of both war and warfare, particularly three specific concepts: war as an extension of politics, the chaotic and unpredictable nature of war, and the distributive character of modern warfare. Knowledge of the historical lineages of these concepts gives commanders and planners a greater appreciation of operational art—an understanding of the nature of war and the battlefield logic it operates within. While the logic of operational art remains mostly unchanged since the mid-nineteenth century, understanding its historical roots is as important as ever on today’s battlefields.

About the Author (from the 2016 commentary)

Maj. William J. Denn is a US Army military intelligence officer and a student at the US Army's School of Advanced Military Studies. He holds a BS from the US Military Academy, an MPP from Harvard's Kennedy School of Government, and an MMAS from the US Army Command and General Staff College. Denn is a recipient of the General George C. Marshall Award and the General Douglas MacArthur Leadership Award. The views expressed herein are those of the author and not necessarily those of West Point, the Department of the Army, the Department of Defense, or any agency of the US government.

Chapter 13

Deep Maneuver and Operational Art in the Twenty-First Century Military Canon

Robert F. Baumann

The renewal of the discussion of deep maneuver undertaken in this volume is overdue. It is no less true that the suspension of the discussion since the end of the Cold War is entirely understandable. Following Operation Desert Storm in 1991, security issues departed sharply from the extended front, mass operations executed during World War II or envisaged during the decades of NATO-Soviet standoff in Europe. In what for a decade or so appeared to be an emergent era of cooperation among the world's major powers, peacekeeping operations and limited interventions predominated. The major exception to this trend was the invasion of Iraq in 2003, but even then the American military mission soon boiled down to counterinsurgency operations and security assistance.

Events of the last several years have created a new context that necessitates a reassessment of where we are and what should concern us. Heightened tensions in Eastern Europe, particularly following Russia's annexation of Crimea and the incitement of civil war in eastern Ukraine, have reactivated almost-forgotten scenarios of direct military conflict between Russia and the west. In the meantime, nuclear brinkmanship by North Korea, and a vastly more assertive geopolitical role assumed by China have necessitated a reevaluation of American expeditionary capabilities in the event of conventional conflict.

This chapter aims to consider the implications of events of the past twenty-five years with respect to deep operations and the broader framework encompassed by the concept of operational art. One particularly fruitful line of thought is to examine the evolution of Russian military thinking during the period in question. Soviet military theorists, who set the stage for contemporary Russian military thought, pioneered the theory of deep operations and were the first self-conscious practitioners of operational art. In important respects, they founded the modern understanding of large-scale combat operations.

One of the most remarkable, but seldom discussed, phenomena of doctrinal evolution and military studies since the dissolution of the Soviet Union has been the divergent paths taken in the functional definition of operational art. For example, it has come to pass that even while Americans

have continued a professional dialog about operational art, interest has lapsed in Russia as evidenced by the direction of analysis in professional military periodicals. Second, Russians have continued to think holistically about the evolution of war even as Americans have remained focused on the conduct of military operations. This is no doubt in large measure due to the fact that for most of the past twenty-five years the United States has been engaged in military operations. While American forces have been learning by doing, Russian forces have mostly remained on the sidelines. That does not mean that Russian observers have not been paying close attention. On the contrary, Russian writers have studied recent events closely and thought deeply about the implications for their own security.

The American experience in the twenty-first century has been highly distinctive. Although counterinsurgency has occupied the spotlight most of the time, there were occasional large operations such as the invasion of Iraq in 2003. Quite logically, the American military brain trust spent a lot of time focused on problem-solving. This almost certainly placed a practical limit on the amount of brain power devoted to reflection and theory about future war. The school house, as evidenced by the US Army Command and General Staff College, presented the rare opportunity for officers to step back just a bit and ponder their profession.

As noted by other authors in this anthology, the US Army embraced operational art in its 1986 Field Manual (FM) 100-5, *AirLand Battle*, doctrine; this construct has served as a core element of American military thought ever since. Professional publications and student works by officers at the US Army Command and General Staff College alike continue to reflect on the application of operational art, whether in a historical or future context. The key 2017 doctrinal publication, FM 3-0, *Operations*, affirms the centrality of operational art in the Army's thinking. It would be hard to fault someone who believes that the definition of operational art can be found etched in stone somewhere at Fort Leavenworth.

Before pursuing this line of thought, however, it is important to counterpoise another surprising trend. During the past two decades, operational art has quietly slipped into the background in Russian military thinking. Why is this surprising? The development of the concept of operational art was arguably the single greatest contribution of Soviet theorists to the field of military art and science. Luminaries such as A. A. Svechin, B. V. Gerua, M. N. Tukhachevsky, V. Triandafillov, G. S. Isserson, and more shaped the concept that propelled theory and doctrine throughout most of the late twentieth century and into the next millennium.¹ Even in the post-Soviet period, no army reveres its heritage more than the Russian Federation, the

foremost heir of Soviet intellectual tradition. Yet, somehow, it seems that the Russians have moved on. This is not to say that operational art has been discarded; rather, it simply does not occupy quite as central a place in the constellation of big thoughts over which Russian military intellectuals are ruminating these days.

Thus, the main question of this discussion consists of two parts. First, what influences have contributed to this intellectual divergence? And, second, are Russians and Americans actually as far apart as they appear to be? To begin, it is worth looking briefly at the evolution of Soviet theory of operational art, followed by the American “discovery” of the concept in the late 1970s. Finally, it is essential to understand what has impelled Russian thinkers into new modes of analysis.

Among the first US analysts to examine the post-Soviet development of operational art as a historical construct was Jacob Kipp of the Foreign Military Studies Office at Fort Leavenworth. In 2010, reflecting on two decades of Russian discussion of the evolution of war, Kipp noted the “disappearance [of operational art] from the common analysis narrative.” He went on to describe Russia’s concept of military systemology “as an alternative reconceptualization of operational art.”² Kipp added: “The development of operational art was a good deal more complex than presented in Western Cold War scholarship.”³ That assertion leads us to review both how operational art emerged as a concept and its belated adoption in the West.

Discussion of the evolution of operational art has tended to follow two roughly parallel lines of thought. One line has focused on its intellectual origins, tracing the idea to formative influences both among late Imperial Russian and German writers. These include key figures such as Gerua (noted above) and A. Neznamov, on the Russian side, and Helmuth von Moltke the Elder on Germany’s part.⁴ The general point here is that the lines of inquiry that would by the 1930s crystallize as Soviet operational art took recognizable form during the late nineteenth century when the scale and complexity of warfare underwent a monumental expansion. Changing technology, elongated fronts, rail-based mobilization timetables, industrial infrastructure, and an astonishing combination of mass and speed created an unprecedented cognitive challenge to strategists and commanders. As described by Svechin, a chasm emerged between the tactical actions of units and the strategic objectives envisioned by planners. Operational art, therefore, emerged as an intellectual construct to rationally connect the two and thus came to be seen as the third and intermediate level of war.⁵

Svechin was among those imperial staff intellectuals who successfully navigated the transition to the Red Army. Along with N. P. Mikhnevich and Neznamov, he offered his services to the revolution. Despite enormous cultural and ideological resistance among the Bolshevik military leadership, the offers were accepted thanks in no small measure to the forceful intervention of Leon Trotsky, who insisted that so-called military specialists were essential to wage civil war successfully against the former tsarist (now White and counterrevolutionary) military establishment.⁶ By helping to forge the theoretical underpinnings of Red Army doctrine, they helped bridge the gaping ideological divide between the old armed forces and the new in Russia.

The historical moment facing the Red Army from 1919 to 1921 was brutally challenging. Trotsky, an apparent novice, a former part-time journalist and long-time revolutionary theorist, served as the Commissar of War and effective leader of the Red Army. His extraordinary energy and rhetorical gifts made him a supremely effective motivator of troops. Moreover, he had an intuitive knack for reading situations. Meanwhile, broad strategic guidance emanated from Vladimir Lenin, another career conspirator and political operative, schooled in military affairs almost exclusively through familiarity with the writings of Friedrich Engels. Years of studying the nature of political power helped him overcome an obvious lack of military background. Another notable figure, Mikhail Frunze, would vault from a position as leader of provincial revolutionary militia unit to front commander in only two years. His rapid rise through the ranks of the Red Army owed as much to his ideological fervor as to his obvious organizational talent and relentless drive.⁷ Overall, there was no reason to believe that this group of men at the top of the Bolshevik hierarchy could successfully run a war. Yet, somehow this new military beginning proved amazingly fruitful.

Again, a key factor, as noted above, was the assimilation of a handful of gifted specialists from the old army. Another factor was the peculiar character of Bolshevik revolutionary ideology. Drawing deeply from Marxism as interpreted through Lenin, the Bolsheviks believed in the inexorable march of history based on scientifically determined principles. Most fundamental was the view that political revolutions were the engine of historical progress, each ushering in a new stage of social evolution. Each stage featured a marked departure from the past and would be attended by the rise of a new social consciousness that would pervade all aspects of human endeavor. In practical military terms, this meant that bourgeois military science was about to depart the world stage, driven off by the discovery and development of a higher form of military thought that

would revolutionize tactics and strategy. The truth of this article of faith is not important here. What is essential to understand that this assumption constituted a shared belief among most of the Bolshevik military theorists. As such, it offered the possibility of a new intellectual beginning, liberating analysts from past theory. Indeed, to fail to advance beyond the theory of the past would constitute a failure and dereliction of duty.

Even Russian theorists in emigration recognized the propitious combination of a radical abandonment of old ideas and the act of constructing a brand new state. E. Messner wrote in the émigré Russian journal *Znamia Rossii* (Russia's Banner) in 1937 that Red theorists, "free from the path of dogma and stagnation," were able to go forward boldly to unlock the key ingredients of future Soviet thought—speed and maneuver.⁸

Looking back at the early years of the Soviet Union, which was officially proclaimed as a multinational state in 1922, it is altogether too easy to miss the burst of creative energy that shaped post-revolutionary life for the next decade. Intellectual and artistic life actually flourished in many corners of Soviet society before the crushing weight of ideological orthodoxy extinguished most forms of individual initiative. Soviet experiments in education, literature, science, and military theory rolled out at an astonishing rate. To acknowledge this is not to ignore the rapid expansion of a police state, man-made catastrophes in Ukraine and Kazakhstan, a wholesale assault on religion and other ideas antithetical to official doctrine, or frenzied persecutions in the name of class warfare. Still, prior to the ascendance of Stalinism, the idea of building a new society inspired a lot of original thinking.⁹

This open environment lasted perhaps the longest in military affairs as a result of the perceived urgency of building a powerful Red Army, which necessitated the massive diversion of resources to meet the perceived challenge of an existential military threat from the capitalist world. Compared to their Western counterparts in the United States, Britain, or France, the leadership of the Red Army enjoyed the full backing of the state to take bold initiatives and build a futuristic force. Since Red Army leaders had minimal ties to the past, they were not weighed down by tradition and they were infused with the fighting spirit born of a belief in the inevitability of the next war and the need to carry the revolution beyond the national frontiers. In addition, the Reds, as inheritors of a Marxist intellectual tradition, were more likely to examine the connections between war and social phenomena. Consequently, they were more attuned to the power of propaganda and more able to build a case for public support than their White adversaries who held to a compartmented concept of war. Not

surprisingly, Mikhail Frunze, one of the most talented Red commanders from the Civil War, promoted the idea of unified military doctrine, which included a comprehensive understanding of conflict.¹⁰

This ferment produced the concept of operational art, along with associated ideas such as deep battle and deep maneuver. Military historian Jacob Kipp writes, “Based upon their own experiences in the Civil War and Foreign Intervention, studies of the major operations of World War I, and a critical reading of foreign military theory, a group of young Red commanders including M. N. Tukhachevsky and V. K. Triandafillov addressed the problem of designing an attack which would achieve breakthrough and allow exploitation using an echeloned commitment of forces and aviation in this process to penetrate to the depth of an enemy’s defense.”¹¹ The works they produced were forward-looking and innovative. The 1936 Soviet Field Regulations surpassed the efforts of all contemporary powers in terms of creating a workable solution to the formidable challenges posed by the World War I battlefield.

Stalin’s purges, which reached into nearly every corner of Soviet society, forced a prolonged detour on the road to implementing deep maneuver concepts. Not only did most leading theorists face execution, but the ideas with which they were associated automatically became suspect as well. That, in turn, adversely affected the equipping and organization of new formations. Put another way, for several years the Red Army experienced extraordinary personnel and organizational turbulence while its principal threat, Hitler’s Germany, was gaining extensive combat experience.

Only the existential threat presented by Nazi power in Germany brought the Soviet Union and Stalin back to some semblance of reality; and only Russia’s extraordinary strategic territorial and demographic depth made it possible to survive Operation Barbarossa. The USSR was seriously unready to deal with Hitler’s 1941 invasion, even after the two-year pause provided by the Molotov-Ribbentrop Pact of 1939 that proclaimed a state of non-aggression and cooperation. It also afforded an opportunity via the “secret clauses” for the Soviet Union to seize eastern Poland; annex the Baltic states of Estonia, Latvia, and Lithuania; and wage a winter war against Finland to acquire additional real estate along the Gulf of Finland. The small territorial buffer Stalin acquired as a result made little difference in the end as the Wehrmacht rolled all the way to the outskirts of Moscow before Soviet reinforcements and severe winter brought the advance to a halt.

Stalin would never be free of morbid suspicions about all those around him, but he had an almost unsurpassed ability to concentrate on a problem

once he confronted it. Thus, once the German invasion began, he reached a *modus vivendi* with Georgi Zhukov and other top commanders who had been fortunate enough to survive the purges. The Red Army returned to deep maneuver concepts and in an amazing feat of military construction, redesigned its army amidst the pressures of war itself. From the Battle of Kursk in the summer of 1943 forward, the Red Army made rapid strides in the execution of deep maneuver. Operation Bagration across Belarus in the summer of 1944 was a masterful exhibition of operational art, yet it was surpassed by the final operations of the war in late 1944 and early 1945. All of the vital elements of Soviet doctrine came into play—shock and massed fires, deception, simultaneous actions along extended fronts hundreds of kilometers in length, deep strikes throughout the depth of German defenses, and rapid exploitation.¹²

For years after the end of the Second World War—the Great Patriotic War as remembered in Russian history—Western military professionals relied on the impressions and commentaries of former German generals to comprehend the feats of the Red Army. Consequently, for a time, the myth persisted that Soviet victory was largely the product of inexhaustible manpower reserves and the ferocious winter of 1941–42 that thwarted Operation Barbarossa at the gates of Moscow. Former German commanders threw Hitler’s increasingly irrational strategic thinking into the mix of crucial factors as well. None of these factors were inconsequential, but what was missed for a time was the role of Soviet deep maneuver theory.

Thanks to the efforts of a small cadre of Russia-focused specialists at Fort Leavenworth, such as military historian David Glantz, the veil of mystery obscuring Soviet operational skill gradually lifted.¹³ Perhaps most amazing was the fact that most of the vital material that would help forge this new analysis was out there in print all along. During the 1960s and 1970s, retired Red Army Commanders published important memoirs and Soviet military historians produced invaluable operational accounts of major campaigns. Unfortunately, the relentless political messaging, stilted prose, and obvious signs of censorship masked the true substance of these works. Glantz and others found that close study of these Soviet historical compilations revealed the outlines of a finely crafted approach to land combat.

Proof of the impact of these works appeared in the form of FM 100-5 (1986), also known as *AirLand Battle Doctrine*. For the first time Soviet concepts such as operational art, deep battle, deep operations, and so on found a prime place in an emerging US Army understanding of the battle-

field. Thinking about the battlefield through its entire depth, along with a renewed emphasis on speed, shock, and disruption, reflected a profound shift in the American vision of the European battlefield.

This is not to suggest that American doctrine came to resemble a mirror image of Soviet thinking. Circumstances alone prevented such an alignment. Soviet land forces remained substantially larger and were also oriented to combat in territory contiguous to the Warsaw Pact, that eastern bloc of states that had been coerced into alliance with the Soviet Union in the immediate postwar years. Despite a substantial presence of American forces in Europe as part of the North Atlantic Treaty Organization (NATO), US geography and strategic interests dictated a more expeditionary mindset based on operating at vast distances. The roles of the Air Force, Navy, and Marines Corps were integral to the defense of America's global interests.

So were tactical nuclear weapons. NATO strategy relied heavily on deterring a Warsaw Pact invasion. Given the clear numerical superiority of the Warsaw Pact, the threat of resorting to tactical nuclear weapons provided a measure of insurance but also opened a Pandora's Box in terms of the nuclear escalatory ladder. Of course, strategic nuclear deterrence presented a similar problem at a higher level. By the 1970s, both sides had more than enough so-called nukes to annihilate the other. However, as anticipated by deterrence theorist Bernard Brodie, the real key was to eliminate the threat of an incapacitating first strike.¹⁴ In other words, for deterrence to work, the credible certainty of a counter-strike was essential. One way to ensure this capability was to harden and disperse ballistic missile launching sites. Another, adopted to one degree or another by both sides, was to maintain various means of delivery, such as strategic bombers or nuclear-armed submarines. Overall, the architecture of deterrence always seemed a little precarious, but it worked.

In the post-Cold War era, the emphasis began to shift in ways that portended radical new approaches to the idea of striking deep against an adversary. Operation Desert Storm offered a preview, but the theoretically significant example followed a few years later. The United States' air war against Serbia during the Kosovo crisis of the late 1990s illustrated the capacity of a technologically advanced power to strike at long range with near impunity. Stealth technology and precision-guided missiles launched from the air or sea seemed to cut the requirement for powerful land forces almost out of the equation.¹⁵

Russian Federation military analysts were not slow to grasp the theoretical and strategic significance of what was taking place. Vladimir Slipchenko observed in 2004 regarding the Kosovo conflict: “There was no theater of combat in this war. . . . One side strikes from aerospace and the other cannot repulse the attack. . . . What is more—and this was quite a surprise for us—the Americans conducted operations against Yugoslavia’s information resources.”¹⁶ Slipchenko went on to explain that a theater of war—non-contact war to be precise—did exist, but not a theater of combat that requires both sides to be militarily engaged. Slipchenko also sounded the alarm for Russia, asserting that the Americans were now a full generation ahead in their military capabilities.

Since that time, Russian military thought has focused heavily on the problem of neutralizing US military advantages and exploring the possibilities afforded by new technologies such as the internet. During the past decade, President Vladimir Putin’s military has rolled out new generations of tanks, missiles, and a variety of other equipment. Moreover, they have shown a growing facility for information war, highlighted by internet attacks in Georgia and the Baltic.

Increasingly, Western analysts have noted the intensification of Russian interest in new methods of warfare. Long-time Russia specialist Tim Thomas has brought to light the nature of Russian intellectual experimentation with new concepts. For example, in 2013 the phrase “new generation warfare” appeared, only to be mothballed a short time later. The evident replacement is “new-type warfare,” sometimes known in English by its abbreviation NTW. Also of interest is the fact that Russia considers NTW as an apt description of the way it practices war whereas the description “hybrid war”—often employed in the West—does not. Rather, as Russians see it, “hybrid war” is what the West does.¹⁷

Of course, part of the Russian distinction between NTW and hybrid war might be a reflection of “not-invented-here syndrome.” In other words, Russia reserves the right to brand its own way of war rather than leaving that designation to others. This is perhaps also interesting in light of Moscow’s increasing push in recent years to characterize Russia as a distinctive civilization, quite apart from and even historically in opposition to the West.¹⁸ Part of the background for this outlook is the public discourse in Russia about Eurasia and Eurasianism, which holds in a general sense that the Russian Federation is the standard bearer for Eurasian heritage. Although Eurasianism remains poorly defined, given the wide ideological

diversity among its advocates, the general thrust seems to suit the current Russian mood and political agenda.

In 2013, General Valery Gerasimov, Russia's chief of the general staff, identified characteristic features of contemporary warfare that reflect the observations made by Slipchenko a decade earlier.¹⁹ He points out, for example, that nonmilitary methods—those not involving traditional fires—are becoming vitally important. To an extent this comment reflects a defensive mindset that has set in among the Russian political and military establishment under Putin. For instance, they tend to view so-called “color revolutions” as a form of attack by the West. The massive protests in Moscow and elsewhere that attended Putin's return to the presidency at the end of 2012 constitute a form of subversion orchestrated by outsiders. Put another way, opposition to the current regime is a form of foreign aggression. To be sure, the United States did offer public encouragement to Russia's democratic opposition. However, what Americans viewed as sticking up for the democratic process was an assault on the Russian system from the perspective of Putin's government.

Two other Russian authors, S. A. Bogdanov and S. G. Chekinov, wrote in 2013 that information superiority is the key in the future. Particularly interesting in this instance are the methods they identify. Specifically, they cite use of the news media, nongovernmental organizations, foreign grants, and disinformation aimed at creating social disruption.²⁰ A 2006 national security textbook published by the Russian Academy for State Service in essence argued for a new way of thinking about the deep strike: “It seems possible to defeat groups of forces, reserves, the economic and administrative centers of one side across the entire depth of its territory.”²¹

Again, Russians seem to perceive that these means are being used against them and that they must learn to respond in kind. Thus, the divergence between Western and Russian perceptions is striking in one key respect. Whereas Westerners view NGOs or free media as part of the normal and constructive functioning of the international community, Russian authorities regard them as alien influences aimed at harming Russia's internal order. Just as ominous is the description of peacemaking operations as a method of cover for attacks on the interests of another state. Russia perceived intervention to prevent ethnic cleansing in Kosovo, for example, as subterfuge to take down a Russian ally, and thus harm Russia's strategic interests. The fact that it could be done remotely gave new meaning to the idea of deep maneuver since the movement of forces on the ground was no longer necessary.²²

Current Russian thought almost seamlessly embeds global political events into the analysis of conflict. An interesting case in point is the increasingly popular interpretation of the Arab Spring as a true harbinger of the way war can be conducted in the twenty-first century. As Gerasimov wrote in 2013, “Of course, it is easiest of all to say that the events of the Arab Spring—these are not war, because to us military people, there is nothing to study. But perhaps, to the contrary—this is exactly what will typify war in the twenty-first century.”²³ If we zoom in on this thinking a little bit, what becomes evident is that popular mass movements from Russia’s viewpoint are weaponized actions against the state. Mass protests or revolutions cannot be organic; they must be the product of forces orchestrated by outsiders. It is no wonder that the 100th anniversary of the Russian Revolution of 1917 received such a tepid commemoration in 2017—the memory of revolution in Russia—has become highly problematic under a regime that values stability over all.

A fascinating corollary of this proposition is the increasing tendency to depict the unravelling of the Soviet Union as the result of foreign—chiefly American and NATO—subversion, rather than acknowledge the role played by a genuine homegrown political movement (not to mention Mikhail Gorbachev, the last leader) that recognized the increasing futility of the Soviet system. This take on the collapse of the Soviet Union found its voice in the mid-1990s when retired general Makhmut Gareev credited the United States with orchestrating a brilliant campaign to win the Cold War. In his book, *If War Comes Tomorrow*, Gareev cited George Kennan’s assessment of the Soviet Union as illustrative of the future. “Kennan,” he wrote, “came to the conclusion that the Soviet dilemma could not be solved by purely military means, and he called for the search for more flexible forms and methods.”²⁴

To be sure, Gareev did not pin all of the responsibility on the United States. He noted acerbically that Soviet politicians failed where their American counterparts succeeded in creating an environment in which the military could excel. Thus, even though Soviet theorists were more advanced, their government was an albatross.²⁵ The United States consequently took much better advantage of the revolution in military affairs that marked the turn of the century. Gareev wrote in 1995, “The key to victory in modern armed conflict becomes the ability to find the enemy before he finds you, and to employ weapons systems of high accuracy and lethality.”²⁶ The United States would demonstrate this capability repeatedly throughout the 1990s. Thus, as described by Gareev, “War coordinates

have left earth and gone to aerospace. Earth is no longer a combat theater. Take note: not one US soldier set foot in Yugoslavia.”²⁷

Another interesting feature of war cited by Gerasimov is that war no longer is declared.²⁸ It is not absolutely clear what he means by this, but it is not hard to infer what he probably has in mind. Due to the advent of new methods of information struggle, such as internet attacks, conflict on a low level has become nearly constant. The perception remains that we are still at peace because no shots are fired, no missiles launched. Yet, the fact is that this is not really so different from the experience of the Cold War when both sides attempted to seek political and psychological advantage in a myriad of ways. Sometimes the arena of competition was in sports, such as at the Olympic Games; at other times it came in the form of culture wars or competition for influence in the nonaligned world. The difference today is that an internet attack or an attack on a country’s satellite communications could have devastating consequences. A crippling economic attack via the internet would lack only human casualties, which still seem to mark the threshold of actual war.

Yet another point offered by Gerasimov that speaks to the main issue of this article is that the role played by modern information technologies has brought about a flattening of the levels of war. The distinctions between strategy, operations, and tactics are not quite what they used to be, and particularly in the information realm a given action can resonate across all three domains simultaneously. This perhaps accounts in part for a decline in discussion of operational art on the Russian side. One implication is the growing significance of asymmetric methods exploiting new technologies. This implies closer integration of military and civilian infrastructures, also thereby shortening the distance between the tactical and strategic.

Gerasimov returned to this subject and others in a 2018 address to the Academy of Military Sciences. This organization, a private entity resembling a think tank, in and of itself reflects Russia’s emphasis on a search for deeper understanding of modern war. With a staff of nearly 2,000 researchers, among them a large number of former high-ranking officers, the academy is becoming Gerasimov’s “go-to source” for current appraisals of military art. Gerasimov returned to the theme of advanced technology, including the roles of information and the employment of assets in space. In his view, future attacks will focus on enemy command and control as well as the economy.²⁹ The vast, highly integrated information systems that make possible spectacularly effective military strikes themselves become supremely lucrative targets. The vulnerability of banking systems and the markets of advanced states also lies in their integrated networks.

In other words, the same kind of thinking that went into operational art and deep maneuver has brought Russia to a new intellectual place concerning war. There are more moving parts and means to deliver an attack than ever before. This does not mean that ground maneuver lacks an important place, however. Just as during the Cold War nuclear stalemate virtually foreclosed the possibility of resort to nuclear weapons, today the means for attacks on information systems—and the great risk of counterstrikes that could devastate economies—may provide a formula for digital stalemate. Still, nuclear stalemate during the Cold War left the door open for small-to-medium-sized regional conflicts such as in Vietnam or Afghanistan. Reciprocal deterrence in one arena does not automatically imply the same in every other.

Past experience suggests that ground forces will continue to have an important role for the foreseeable future. The ability to seize and hold ground—or to defend that ground—will remain critically important if only for its deterrent effect. Deep maneuver, too, will stay in the mix. Although there is no indication that we will see enormous armies of the World War II variety, or even on the scale of the Cold War, the ability to penetrate through and beyond an adversary's defenses could easily present a *fait accompli*. Russian presence in Crimea, Eastern Ukraine, or South Ossetia demonstrates how hard it can be to remove an occupying force.

New-type warfare seems to rely less on traditional armed combat but will still reflect a “deep” mindset in terms of disrupting and paralyzing an adversary well beyond any notional front line.³⁰ By whatever name we choose to call it, conflict will increasingly encompass an entire spectrum of methods and technologies, including many that do not overtly cross the threshold into what we traditionally recognized as creating a state of war. Consequently, it will be difficult to establish when war actually begins. One writer, Janis Berzins of the National Defense Academy of Latvia, contends, “The Russian view of modern warfare is based on the idea that the main battlespace is the mind.”³¹ This, in turn, makes the escalatory ladder increasingly perplexing. Russia has exploited this ambiguity in Eastern Ukraine where the West's response, for good reasons, has been cautious and tentative. Perhaps this is evidence of Russia's concept of “reflexive control,” which broadly refers to means of disrupting adversary decision-making. More likely, however, the carefully measured Western responses—mostly in the form of sanctions—reflect the delicacy of the situation.

Meanwhile, this world of ambiguity and nuance has contributed mightily to pushing operational art into the background. Traditionally conceived in a context of conventional operations, operational art had yielded

its place to discussion of design in US doctrine.³² As Kipp observed, “Soviet operational art, which emerged out of the Stalinist system designed to fight and win a total war, collapsed in the face of a qualitative shift in the nature of future war, from an industrial model to one based on information and control.”³³ The figure who helped bring Russia to its current state was Viktor Riabchuk, a professor of operational art at the Combined Arms Academy in Moscow. According to Kipp, “Riabchuk sought to apply military systemology to operational art in the epoch of deep precision strikes.” Furthermore, this approach stresses “the value of a system approach for assessing the international environment, national interests, threats, and the means of national defense.”³⁴

In a March 2019 speech to the Russian Academy of Military Sciences, Gerasimov talked about the use of “limited actions” in the pursuit of strategic ends. This implies employing small forces in places like Syria to produce disproportionately large effects. Although this can be construed as something new, it is not that different from the cautious approach of the Cold War. While massive NATO and Warsaw Pact forces eyed each other across the Inter-German Border, much smaller forces took on strategically relevant tasks such as training and equipping friendly forces, or advising in proxy conflicts. These days such foreign assistance could entail use of unmanned aerial vehicles, robotics, or other technologies to shape the conflict environment.³⁵

Broadly speaking, Gerasimov talks about an active defensive posture for Russia with the aim of preventing threats to the homeland. This is not particularly concerning on its face, but a couple of underlying assumptions require careful assessment. One is the emerging idea that all means of struggle are part of the new rules of engagement. The other is that a state of conflict is “the new normal.”³⁶ As viewed along a historical continuum, deep maneuver has taken on a host of new forms. Large-scale combat operations still have a place, but will be preceded and accompanied by the latest capabilities that technology can provide.

About the Author

Robert F. Baumann is a Ministry of Defense advisor representing the Defense Security and Cooperation Agency as senior faculty and education advisor at the Armed Forces Academy of Uzbekistan. Previously, he served as professor of history and director of degree programs for the CGSC from 2003 to 2020. Baumann joined the CGSC faculty in 1984 and served for nineteen years as a member of the Department of Military

History/Combat Studies Institute. He received a BA in Russian from Dartmouth College as well as an MA in Russian and East European studies, a Master of Philosophy degree in history, and a PhD in History from Yale University. Baumann wrote *Russian-Soviet Unconventional Wars in the Caucasus, Central Asia, and Afghanistan* (1993) and more than twenty scholarly articles and book chapters and has been a frequent contributor to *Military Review*. He was coauthor of *Invasion, Intervention, Intervention: A Concise History of the U.S. Army in Operation Uphold Democracy* (1998), *My Clan Against the World: A History of US and Coalition Forces in Somalia 1992–1994* (2004), and *Armed Peacekeepers in Bosnia* (2004)

Notes

1. For a good account of imperial antecedents to Soviet thought, see Bruce W. Menning, “The Imperial Origins of Operational Art, 1878–1914,” in *Historical Perspectives of the Operational Art*, eds. Michael Krause and R. Cody Phillips (Washington, DC: US Army Center of Military History, 2005), 189–211. For a broader discussion, see Bruce Menning, *Bayonets Before Bullets: The Imperial Russian Army 1861–1914* (Bloomington, IN: Indiana University Press, 1992).

2. Jacob Kipp, “Operational Art and the Curious Narrative on the Russian Contribution: Presence and Absence Over the Last Two Decades,” in *The Russian Military Today and Tomorrow: Essays in Memory of Mary Fitzgerald*, ed. Stephen Blank and Richard Weitz (Carlisle, PA: Strategic Studies Institute, 2010), 194, <https://jstor.org/stable/resrep121110.7>.

3. Kipp, “Operational Art,” 206. See also Kipp, “The Origins of Soviet Operational Art, 1917–1936,” in *Historical Perspectives of the Operational Art*, 213–46.

4. See A. A. Neznamov, *Sovremennaia voina: Deistviia polevoi armii*, [Contemporary War: The Actions of Field Armies], 2nd ed. (Moscow: 1912). On Moltke, see Michael Krause, “Moltke and the Origins of the Operational Level of War,” in *Historical Perspectives of the Operational Art*, 113–48.

5. Svechin develops this thought in his most famous work, *Strategiia* [Strategy], 2nd ed. (Moscow: 1927). N. Varfolomeev rendered a great service to historians by placing Svechin’s contribution in context in “*Strategiia v akademicheskoi postanovke* [Strategy in Academic Construction],” *Voina I revoliutsiia*, [War and Revolution], no. 11 (1928), 83–85.

6. Orlando Figes, “The Red Army and Mass Mobilization during the Russian Civil War 1918–1920,” *Past and Present* 129 (November 1990): 178, https://www.jstor.org/stable/pdf/650938.pdf?ab_segments=0%2Fdefault-2%2F-control&refreqid=search%3A8bee0341a154ed3677745c94977a715d. Figes offers a good overview of recruitment issues for the Red Army. Desertion was a huge problem.

7. Laura Engelstein, *Russia in War, Revolution, Civil War 1914–1921* (New York: Oxford University Press, 2018), 353–58. This is the best overall account to date of Russia’s Civil War.

8. E. Messner, *Sovietskaia I emigrantskaia voennaia mysl’* [Soviet and Émigré Military Thought] (Moscow: 1999), 345. As cited in N. S. Niazov, *Osnovnye strategicheskie kontsepsii I vooruzhennye sily vedushchikh stran mire mezhoennogo perioda* [Fundamental Strategic Concepts and the Armed Forces of Leading Countries of the World in the Interwar Period] (St. Petersburg: St. Petersburg University, 2005), 48–49.

9. For a good overview, see Jacob Kipp, *Barbarossa, Soviet Covering Forces, and the Initial Period of War: Military History and Airland Battle* (Fort Leavenworth, KS: Foreign Military Studies Office, 1989).

10. See M. A. Gareev, *M. V. Frunze: Military Theorist* (London: Pergamon-Brassey, 2004); and Walter Darnell Jacobs, *Mikhail Frunze: the Soviet Clausewitz, 1888–1925* (The Hague: Martinus Nijhoff, 1969).

11. Kipp, “Barbarossa,” 1.

12. For a thorough account of the Red Army’s maturation during the war, see David Glantz’ *Soviet Operational Art: In Pursuit of Deep Battle* (New York: Frank Cass, 1991).

13. For a concise look, *The Evolution of Soviet Operational Art: The Documentary Basis, 1927–1991*, 2 vols., trans. Harold Orenstein with a foreword and introduction by David M. Glantz (New York: Routledge, 1995).

14. See Bernard Brodie, *Strategy in the Missile Age* (Princeton, NJ: Princeton University Press, 1959).

15. See Andrew Bacevich and Eliot Cohen, eds., *War over Kosovo: Politics and Strategy in a Global Age* (New York: Columbia University, 2001); and Congressional Research Service, “Kosovo: Lessons Learned from Operation Allied Force,” 19 November 1999, <http://congressionalresearch.com/RL30374/document.php>.

16. Makhmut Gareev and Vladimir Slipchenko, *Future War* (Fort Leavenworth, KS: Foreign Military Studies Office, 2005). This quote is from the text of a lecture delivered by Slipchenko.

17. Timothy Thomas, “The Evolving Nature of Russia’s Way of War,” *Military Review* 97, no. 4 (July–August 2017): 35–36. As noted by Les Grau, Charles Bartles, and Jacob Kipp, Slipchenko also used the phrase “Sixth Generation Warfare” to describe the phenomena of NTW. This typology would align with the writing of former Soviet Chief of the General Staff Nikolai Ogarkov. See Jacob Kipp, “Russian Sixth Generation Warfare and Recent Developments,” *Eurasia Daily Monitor Online* 9, no. 17 (25 January 2012), <https://jamestown.org/program/russian-sixth-generation-warfare-and-recentdevelopments/>; and Lester Grau and Charles Bartles, *Factors Influencing Russian Force Modernization* (Fort Leavenworth, KS: Foreign Military Studies Office, 2018).

18. See, for example, Charles Clover, *Black Wind, White Snow: The Rise of Russia’s New Nationalism* (New Haven, CT: Yale University Press, 2016), 306–18.

19. Thomas, “The Evolving Nature,” 36.

20. Thomas, 37–39, as discussed in S. G. Chekinov and S. A. Bogdanov, “On the Character and Content of Wars of a New Generation,” *Military Thought* 10 (2013): 13–24.

21. *Osnovy voennoi politiki i obsepecheniia voennoi bezopasnosti rossiskoi federatsii: Uchebnoe posobie* [Fundamentals of Military Policy and the Establishment of the Military Security of the Russian Federation: Instructional Reading] (Moscow: Russian Academy of State Service, 2006), 44.

22. Gerasimov, “*Tsennost’ nauki v predvidenii* [The Value of the Science of Forecasting]”, *Voenno-promyshlenyi kur’er* [Military-Industrial Courier] (26 February 2013), <https://vpk-news.ru/articles/14632>.

23. Gerasimov.

24. Makhmut Gareev, *If War Comes Tomorrow: The Contours of Future Armed Conflict*, trans. Yakov Fomenko (London: Frank Cass, 1998), 101.
25. Kipp, Introduction to Gareev, *If War Comes Tomorrow*, 15.
26. Kipp, 15.
27. Vladimir Slipchenko, "Lecture," in Makhmut Gareev and Vladimir Skipchenko, *Future War*, 23–24.
28. Tim Thomas, "The Evolving Nature of Russia's Way of War," 36.
29. Roger McDermott, "Gerasimov Outlines Russian General Staff's Perspectives on Future Warfare," *Eurasian Daily Monitor* 15, no. 50 (3 April 2018). McDermott cites the newspaper *Moskovskii komsomolets*, 25 March 2018, as his source for Gerasimov's speech. See also Charles Bartles, "Getting Gerasimov Right," *Military Review* 96, no. 1 (January–February 2016): 30–33.
30. Ronald Sprang, "Russian Operational Art, New Type Warfare, and Reflexive Control," *Small Wars Journal* (17 September 2018), <https://smallwarsjournal.com/jrnl/art/russian-operational-art-new-type-warfare-and-reflexive-control>.
31. Janis Berzins, "The New Generation of Russian Warfare," *Aspen Review* (March 2014), <https://www.aspen.review/article/2017/the-new-generation-of-russian-warfare/>.
32. Kipp "Operational Art and the Curious Narrative on the Russian Contribution," 204.
33. Kipp, 233.
34. Kipp, 238–39.
35. See Roger McDermott, "Gerasimov Unveils Russia's 'Strategy of Limited Actions,'" *Eurasia Daily Monitor* 16, no. 31 (7 March 2019).
36. Berzins, "The New Generation of Russian Warfare."