Art of War Papers

From Domination to Consolidation:

At the Tactical Level in Future Large-Scale Combat Operations

Dominik Josef Schellenberger, Lieutenant Colonel, German Army

US Army Command and General Staff College Press
US Army Combined Arms Center
Fort Leavenworth, Kansas

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A US Army Command and General Staff College Press Book
Published by the Army University Press

Library of Congress Cataloging-in-Publication Data

Names: Schellenberger, Dominik Josef, author. | U.S. Army Command and General Staff College Press, issuing body.
Title: From domination to consolidation : at the tactical level in future large-scale combat operations / Dominik Josef Schellenberger.
Other titles: At the tactical level in future large-scale combat operations | Art of war papers.
Description: [Fort Leavenworth, Kan.] : Army University Press, [2020] | Series: [Art of war papers] | "A US Army Command and General Staff College Press Book." | Includes bibliographical references.
Identifiers: LCCN 2020012373 | ISBN 9781940804101 (paperback) | ISBN 9781940804101 (Adobe PDF)
Subjects: LCSH: United States. Army--Stability operations. | Consolidation of gains (Military science) | Effects-based operations (Military science)--United States. | Reconstruction (1939-1951)--Germany. | Germany--History--1945-1955.
Classification: LCC U167.5.S68 S34 2020 | DDC 355.02/873--dc23 | SUDOC D 110.18:T 11
LC record available at https://lccn.loc.gov/2020012373

August 2020

Editor
Elizabeth J. Brown

Program Description

The Command and General Staff College (CGSC) Art of War Scholar's program offers a small number of competitively select officers a chance to participate in intensive, graduate level seminars and in-depth personal research that focuses primarily on understanding strategy and operational art through modern military history. The purpose of the program is to produce officers with critical thinking skills and an advanced understanding of the art of warfighting. These abilities sare honed by reading, researching, thinking, debating and writing about complex issues across the full spectrum of modern warfare, from the lessons of the Russo-Japanese war through continuing operations in Afghanistan and Iraq, while looking ahead to the twenty-first century evolution of the art of war.

Abstract

The current operational environment is characterized by the emergence of the information age and peer and near peer adversaries. The 2017 Field Manual (FM) 3-0, *Operations* addresses those paradigm shifts by introducing the multi-domain extended battlefield and four Army strategic roles—shape, prevent, conduct large-scale ground combat, and consolidate gains. FM 3-0 officially implements consolidation of gains and the related consolidation area for the first time into US Army doctrine. The purpose of consolidation of gains is to make enduring any temporary operational success and set the conditions for a stable environment allowing for a transition of control to legitimate authorities. An analysis of the historical role the US Army played at the end of World War II for the transition in occupied Germany as well as of current doctrine and future-oriented concepts leads to eighteen suggested doctrinal changes concerning consolidation of gains across US Army operations, leadership, and mission command doctrine. Four of those suggested doctrinal changes are the introduction of a comprehensive multi-domain consolidation area, the emphasis of intent-guided procedural control, the codification of virtual and cognitive consolidation of gains, and the doctrinal recognition of the possible need for temporary military government.

Acknowledgments

First of all, I thank my loving wife, Jasmin, and my precious daughter, Sophie, and son, Raphael, for their mental support and patience with their husband and dad spending so much time on this research project. Both, your love and God's blessing, have made this possible.

Second, many thanks, of course, go to my committee, which—in best mission command style—has given me an intent and the necessary latitude to enable my initiative: Lt. Col. Alexander Meseck, who has sparked my interest in this topic, Dr. Thomas Bradbeer, who has constantly helped with academic guidance, and, finally, Col. Rich. D. Creed, Jr, who—together with his entire Combined Arms Doctrine Directorate team—has provided critical and candid thoughts and suggestions.

Third, I really want to thank the Ike Skelton Distinguished Chair for the Art of War, Dr. Dean Nowowiejski, and the entire Art of War class of 2018. The feedback and inputs from that outstanding group of scholars have significantly contributed to the focus and direction of this paper.

I also want to thank Lt. Col. Eric Peterson and his G-5 team from the 1st Infantry Division, Fort Riley, Kansas, for their upright and valuable support as well as my "brother in arms" James J. Torrence from my previous Staff Group 14B. Jim, your motivational comments particularly during the starting phase of this project kept me on the edge and going. Final thanks go to Mrs. Venita Krueger for navigating me through the challenges of formatting and editing this thesis.

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Illustrations

Acronyms

1ID	1st Infantry Division
ADRP	Army Doctrinal Reference Publication (US)
ADP	Army Doctrinal Publication (US)
BCT	Brigade Combat Team
CADD	Combined Arms Doctrine Directorate
CAL/DAL	Center of Army Leadership/Damage Assessment List
CAS	Close Air Support
CDPX	Combined Displaced Persons Executive
CG	Commanding General
CIC	Counterintelligence Corps
COIN	Counterinsurgency
CMOC	Civil Military Operations Center
CUB	Commander's Update Brief
DP	Displaced Persons
DPX	Displaced Persons Executive
DOTMLPF-P	Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy
EAB	Echelons Above Brigade
FM	Field Manual (US Army)
FO	Field Order
GLOC	Ground Lines of Communication
GP	Guided Projectile
HN	Host Nation
HQ	Headquarters
IADS	Integrated Air Defense System
IDP	Internally Displaced Person
IE	Information Environment
IO	International Organization
IPB	Intelligence Preparation on the Battlefield

IRC	Information Related Capabilities
ISIL	Islamic State of Iraq and the Levant
ISR	Integrated Service Routers
IW	Information Warfare
JCS	Joint Chiefs of Staff
JP	Joint Publication (US)
LOC	Line of Communication
LSCO	Large-Scale Combat Operations
MDB	Multi-Domain Battle
MDMP	Military Decision Making Process
MEB	Maneuver Enhancement Brigade
MMAS	Master of Military Arts and Science
MMLA	Mission Military Liaison Administrative
MTOE	Modification Table of Organization and Equipment
NGO	Non-Governmental Organization
OA	Operational Area
OE	Operating Environment
OIR	Operation Inherent Resolve
PNT	Positioning, Navigation, and Timing
POW	Prisoner of War
RAMP	Recovered Allied Military Personnel
RDSP	Rapid Decision-making and Synchronization Process
RMA	Revolution in Military Affairs
SACP	Support Area Command Post
SHAEF	Supreme Headquarters Allied Expeditionary Force
SOF	Special Operations Forces
SOP	Standard Operating Procedures
SSE	Suspected Sensitive Exploits
SSTR	Stability, Security, Tranasition, and Reconstruction
TCF	Tactical Combat Force

UNRRA	United Nations Relief and Rehabilitation Administration
USFET	United States Forces, European Theater

Chapter 1
Introduction

> 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.[1]
>
> — Carl von Clausewitz, *On War,* 1832

> If you break it, you own it.[2]
>
> — Colin Powell, 65th United States Secretary of State, 2004

> We have won the German war. Let us now win the peace.[3]
>
> — Bernard Montgomery, Commander-in-Chief British Forces Germany, 8 May 1945

Purpose and Significance

The purpose of this study is to identify challenges regarding the transition from large scale combat operations to consolidation of gains as described in the 2017 US Army Field Manual 3-0 in order to inform the US Army in general and the Combined Arms Doctrine Directorate in particular in the process of developing new doctrine. For the first time, Field Manual 3-0 officially implements consolidation of gains and the related physical consolidation area as part of the operational framework into US Army doctrine.

Thus, the thesis topic is significant to the military profession, because it intends to familiarize political and military leaders at all levels of war, particularly at the tactical level, with the doctrinal idea behind consolidation of gains as well as its related challenges, ramifications, and implications. In addition, combined arms doctrine directorate has not yet broken down the broad tactics and procedures from Field Manual 3-0 into more detailed techniques. This study will add to the endeavor of filling this gap. Hence, this manuscript focuses mainly on tactical to operational level considerations in order to help drive doctrine development.

Issues

The US Army has not fought conventional large-scale combat operations since the end of the Second Gulf War in 2003. Since then, the main emphasis of organizing, training, and equipping the force has been on stability operations in Afghanistan and Iraq. In addition, the military has undergone several structural reforms, which has led to reduction in

both size and numbers. In the meantime, the current operating environment has changed significantly over the last 25 years. Near-peer threats have emerged such as Russia, China, Iran, and North Korea. Those threats, as well as malicious non-state adversaries, have developed capacities and capabilities that challenge and partly overmatch US forces in land combat and also in other domains of warfare: air, maritime, space, and information environment. At the same time, those challenges differ significantly from the still on-going campaigns in Afghanistan and Iraq. This evolution of the operating environment, characterized by the emergence of the information age and peer and near peer adversaries, caused the US Army to address those paradigm shifts by adjusting operations doctrine.

One fundamental assumption about large-scale combat operations found in Field Manual 3-0—Army units must be able to operate in sensor rich and heavily contested multi-domain battlefields requiring ground forces to enable operations in other domains, especially air. In other words, while the US Army has been in a receiving mode profiting from joint capabilities, it has now conceptually shifted into an enabling mode, setting conditions for the joint force. Quick and decisive offensive operations such as strikes against enemy long-range fire capabilities or radar sites, are necessary to maintain tempo and momentum while bypassing enemy remnants. This logic inherently contains the necessity to consolidate operational gains in order to achieve the ultimate policy or strategic goal of an operation.

The fundamental shift from counterinsurgency operations to large-scale combat operations also encompasses a significant cultural change in the US Army. Fighting counterinsurgency campaigns has changed the mindset of the US military. Over the last 15 years, US soldiers have fought from a position of relative advantage, relying on overmatch in all domains. Examples for that overmatch are: immediately available overwhelming firepower, close air support, and aeromedical evacuation. As large-scale combat operations have become "more lethal, and more likely, than it has been in a generation," to fight a near peer or peer adversary necessitates a cultural change within the US Army.[4] Arguably, the most important group of soldiers who has to embrace this cultural change is the non-commissioned officer corps, the backbone of the Army in garrison as well as deployed.

Problem Statement

Field Manual 3-0 details, "how we [The United States Army] deter adversaries and fight a peer threat today, with today's forces and today's

capabilities."[5] In this regard, Field Manual 3-0 introduces two ideas which help to understand the changing operating environment and how to fight near peer threats in the operating environment: The multi-domain extended battlefield as well as the US Army strategic roles—shape, prevent, conduct large-scale combat operations, and consolidate gains. As Figure 1.1. illustrates, the US Army will use those strategic roles in order to contribute to the six groups of military activities of future joint combat operations. As in the past, the US Army will have to be capable of executing the strategic roles simultaneously across one or multiple theaters of operation.

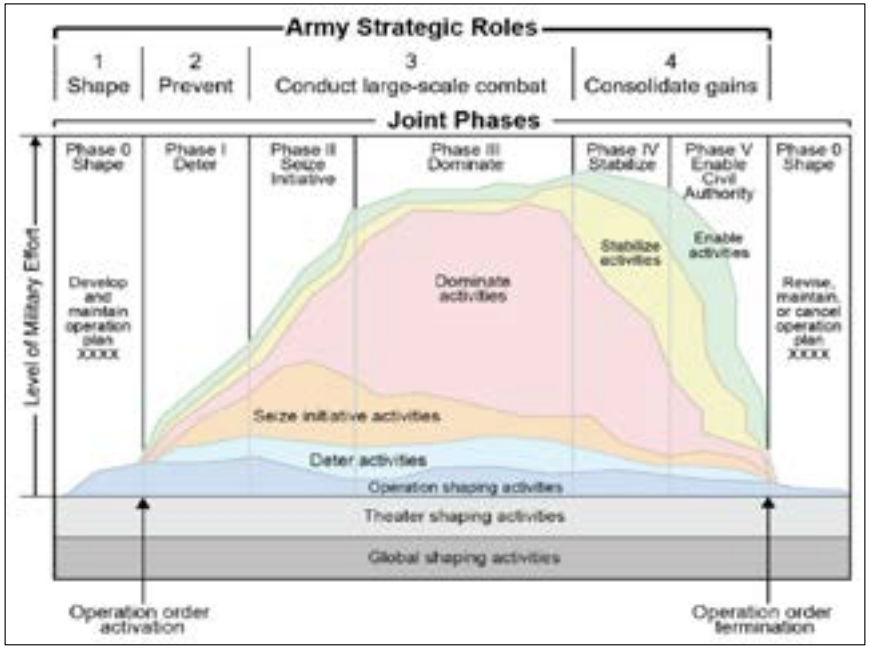

Figure 1.1. Army strategic roles and their relationships to joint phases.

Source: Created by author, on basis of US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 12.

Particularly, the shift in phases from joint phase III *Dominate* to the joint phases IV *Stabilize* and V *Enable Civil Authority* has historically been the decisive step to "set the conditions for a sustainable environment, allowing for a transition of control to legitimate civil authorities" achiev-

ing the political and strategic purpose of an operation or campaign.[6] This is where consolidation of gains comes into play as the ultimate objective of operations to consolidate gains is to fulfill that strategic purpose. Consequently, the success or failure of the transition from large-scale combat operations to consolidation of gains decides whether a war is perceived as won or lost. Figure 1.1. also shows how the joint phases and respective transitions normally occur concurrently, not sequentially. To doctrinally implement consolidation of gains, Field Manual 3-0, there are three stages; first, add a physical consolidation area (as area of operation) to the operational framework; second, introduce physical, temporal, cognitive, and virtual aspects of that operational framework in the context of a multi-domain operating environment; and third emphasizes the importance of consolidating gains to exploit positions of relative advantage and achieve enduring favorable outcomes.[7]

While the reconstruction of Germany, Italy, and Japan after World War II are positive examples of consolidation of gains following large-scale combat operations, the failures in Haiti, Nicaragua, Somalia, Vietnam, and Libya as well as the ongoing and protracted conflicts in Afghanistan and Iraq, illustrate how difficult it is to effectively consolidate gains while fighting an insurgency inside a developing nation.[8] Regarding Iraq (2003), the president of the United States made the fundamental decision to administer post-war Iraq by a civilian-led organization, not by some sort of military government as used in Germany at the end of and upon completion of World War II. In the planning for the occupation of the Philippines (1898), Japan (1945), and Germany (1945), national leaders initially preferred civilian administration over military government. The main reason for that preference lay in the assumption that the necessary experts could be recruited. In all three examples "civilian administration either failed or was rejected during the planning processes based on past failures, and each failure was directly linked to the general inability to recruit such experts."[9] Although the political and economic reconstruction is central to rebuilding a state following armed conflict, US armed forces are not adequately manned, equipped, and trained for this challenge.[10] This problem set leads to the research questions of this study.

Research Questions

- Primary Research Question: How can the US Army tactically best plan and execute the transition from ground combat to the consolidation of gains?

- Secondary Questions;

- How do current Joint and US Army doctrine and concepts relate to consolidation of gains?

- What can the US Army learn for today's consolidation of gains from doctrine and practice in the European theater at the end of World War II?

- What are current and future cross-functional considerations and challenges inherent in consolidating gains?

- Optional Research Question: How can multinational partners, such as the German military, tie into the consolidation of gains at the tactical level on the multi-domain battlefield?

Assumptions and delimitations

This study builds upon three major assumptions and delimitations. Those assumptions have a twofold purpose: On the one hand, they function as foundation for the related research and, on the other hand, they cover those realms and issues, which go far beyond the outlined research questions and, thus, the scope of this study.

The central delimitation is that this study does not analyze in detail the joint phases II *seize the initiative* and III *dominate the battle space.* Instead, this study focuses on the unprecedented challenges specifically related to the transition from large-scale ground combat to consolidation of gains. Those challenges have been caused by the evolving operating environment as briefly outlined above.

Second, this study assumes the operating environment is as outlined both in Field Manual 3-0 and the US Army Training and Doctrine Command concept *Multi-Domain Battle: Evolution of Combined Arms for the 21st Century, 2025-2040, Version 1.0* (multi-domain battleconcept).[11] It will further detail this operating environment as part of chapter 3, but not analyze its feasibility and probability of occurrence.[12] Using large-scale combat operations as the focal point for the operating environment causes several subordinate assumptions and implications, which are closely related to consolidation of gains and, therefore, will be addressed as part of the analysis in chapter 4. In short, due to increased lethality, large-scale combat operations will most likely go hand in hand with significantly more military and civilian casualties, collateral damage, internally displaced persons and refugees, prisoners of war, and others. As a notional example, a Russian attempt to militarily annex the Baltic states would most likely trigger a large-scale counterattack by NATO, leveraging all instruments

of power of its members, in order to regain the occupied territory and defeat the Russian invaders. Thus, consolidation of gains will involve nation states, whose governments and infrastructure will require a significant amount of reconstruction and support immediately upon gaining control of the respective territory. The failure to respond swiftly to that need "will threaten our long-term operational success in that state and will also result in America's expenditure of a great deal more money and time to achieve the strategic objectives that dictated its presence in that state in the first instance."[13] This is even truer with regard to possible conflicts in and around urban areas.

The third assumption is that the division is the first tactical echelon able to effectively plan and coordinate the employment of capabilities within the multi-domain operational framework, i.e. across all domains and in all environments.[14] Brigade combat teams and lower echelons do not possess the required capabilities, staff elements, and personnel. Therefore, the focal point of this study is US Army tactical echelons above brigade. This tactical to operational level focus has consequences for the derived deductions of chapter 4 and the conclusions of chapter 5.

Summary and Focus

This manuscript centers on the recently published Field Manual 3-0, *Operations,* and a two-fold major paradigm shift, which Field Manual 3-0 is trying to capture: The shift from the industrial to the information age and from non-state to peer and near peer threats leading to transitions, such as from counterinsurgency to large-scale combat operations, see Figure 1.2. Field Manual 3-0's answers to those paradigm shifts are the introduction of the multi-domain extended battlefield and four Army strategic roles, including the preparation for the shift from large-scale ground combat to consolidation of gains. Consolidation of gains and the question of how the US Army can tactically best plan and execute the transition from ground combat to the consolidation of gains, form the theoretical cornerstone of this study. To answer this primary research question, this manuscript maintains tactical to operational level focus, with US Army eschelons above brigade as its focal point. That way, this research intends to inform US Army doctrine development regarding consolidation of gains, ultimately, funneling into a cultural change in the US Army. The chosen thesis title "From Domination to Consolidation of Gains at the Tactical Level in Future Large-Scale Combat Operations" reflects both the mentioned transitions and focal points.

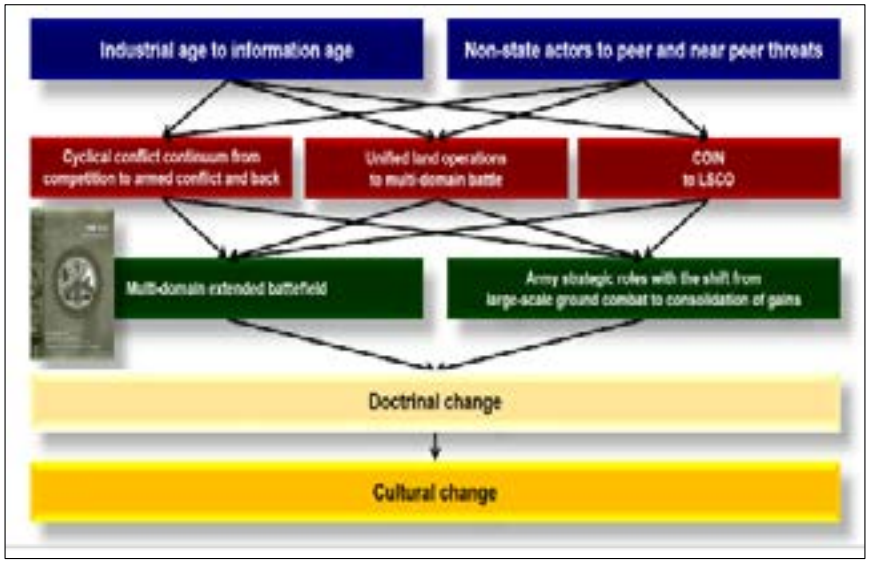

Figure 1.2. Paradigm shifts and answers.

Source: Created by author.

Notes

1. Carl von Clausewitz, *On War,* ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 81.

2. Colin Powell, *It Worked for Me: In Life and Leadership,* ed. Tony Koltz (Harper, NY: an imprint of Harper Collins Publishers, 2012).

3. Christopher Knowles, *Winning the Peace: the British in Occupied Germany, 1945-1948* (Bloomsbury Academic, NY: an imprint of Bloomsbury Publishing PLC, 2017), 1.

4. US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), Foreword.

5. US DA, Field Manual 3-0, *Operations,* Foreword.

6. US Department of the Army, Field Manual 3-0, *Operations,* 1-16.

7. US Department of the Army, Field Manual 3-0, *Operations,* XI. Before this, the operational framework had encompassed the so-called deep, close, and support area. The new consolidation area has several implications such as the requirement for additional combat power, while not drawing forces away from the close or deep area. This study further examines those implications as part of chapters 4 and 5.

8. Conrad C. Crane, "Where Wars are Really Won," in *Turning Victory into Success: Military Operations after the Campaign,* ed. Dr. Brian M. De Toy (Fort Leavenworth: Combat Studies Institute Press, 2004), 2.

9. Richard M. Whitaker, "Military Government in Future Operations," (Strategy Research Project, US Army War College, Carlisle, PA, 2006), Abstract and 5.

10. Nadia Schadlow, *War and the Art of Governance: Consolidating Combat Success into Political Victory,* (Washington, DC: Georgetown University Press, 2017).

11. The changing operating environment will be further described and defined as part of chapter 3.

12. In contradiction to Field Manual 3-0, Jahara Matisek and Ian Bertram state that "No near-peer country is openly challenging America's globally constructed world order of norms, rules, and institutions created through decades of American blood, sweat, and tears. Such adversaries are operating in a peripheral and indirect fashion, however, to secure limited gains helpful to their own interests. These efforts chip away at American strategic interests in such a way that it is difficult for political and military leaders to justify the mobilization of American political willpower and military resources to prevent and/or reverse adversary gains. Indeed, US strategy is caught in a paradoxical situation in which the conventional warfare concept is needed for overall deterrence but is dead because no adversary wants to engage directly with conventional American military might." For more details, see Jahara Matisek and Ian Bertram, "The Death of American Conventional Warfare: It's the Political Willpower, Stupid," *Strategy Bridge,* 5 November 2017, accessed 13 November 2017, thestrate-

gybridge.org/the-bridge/2017/11/5/the-death-of-american-conventional-warfare-its-the-political-willpower-stupid.

13. Whitaker, “Military Government in Future Operations,” 11.

14. Chapter 2 will further elaborate on the domains and environments as well as the operational framework and its related considerations.

Chapter 2
Research Methodology

Based upon the primary research question, the purpose of this study is to identify doctrinal shortfalls regarding the transition from large-scale combat operations to consolidation of gains as described in the 2017 Field Manual 3-0. Against this backdrop, this study follows a four-step methodology as Figure 2.1. illustrates.

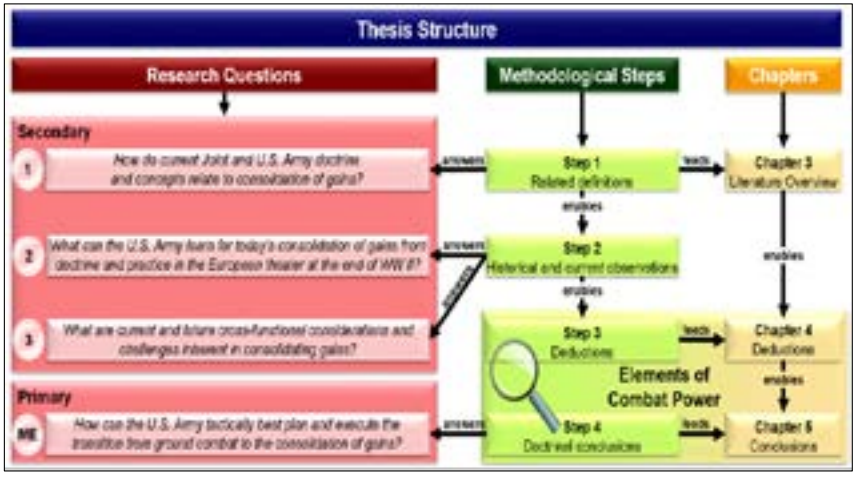

Figure 2.1. Thesis structure.

Source: Created by author.

Step 1—Related Definitions

In the first step, the literature review of chapter 3 not only provides an overview about both historical and current problem-related literature and doctrine, but also identifies, compares, and contrasts definitions, which are directly related to consolidation of gains. Those definitions are divided into two sets—transitional and operational definitions. Transitional definitions—in accordance with the title of this manuscript—cover the transition from phase III Dominate to the phases IV Stabilize and V Enable Civil Authority; operational definitions provide the necessary operational background, setting the stage for historic, current, and future problem-related considerations.

Step 2—Historical, Current, and Future Observations and Considerations

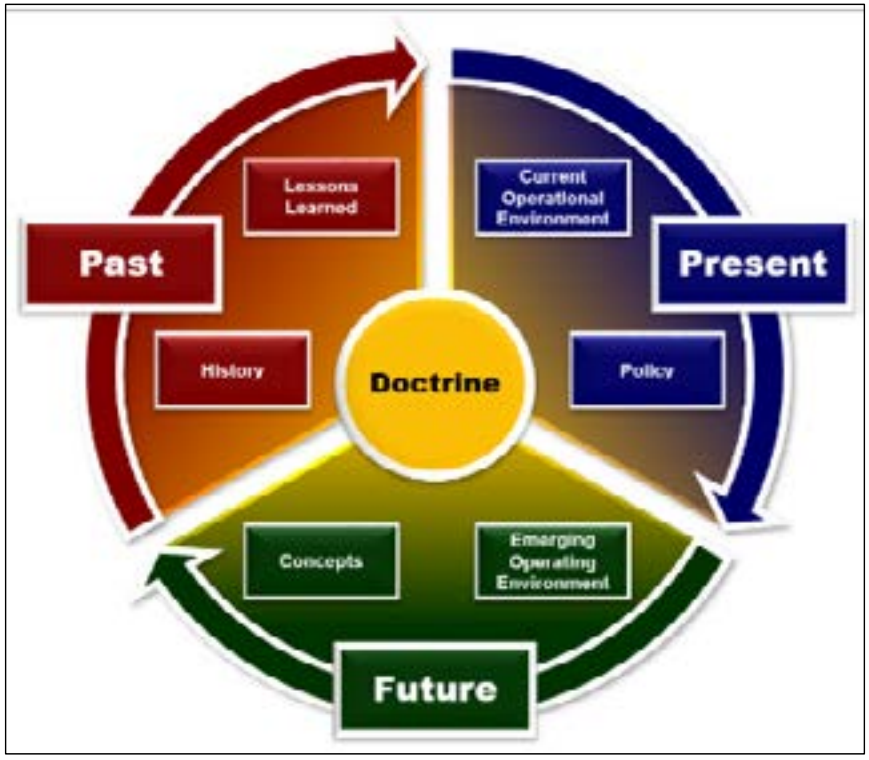

Figure 2.2. Wheel of doctrine development.

Source: Created by author.

Doctrine development is informed by three main drivers: By insights from the past, such as historic case studies or operational lessons learned; by current factors, such as the current operating environment or policy; and by future estimates, such as the emerging operating environment and concepts, see Figure 2.2. The impact of those drivers or—in terms of Figure 2.2.—the size of the segments can vary depending on the focus of the respective doctrine and under which circumstances it is or was developed. The current Field Manual 3-0 with its focus on large-scale combat operations is certainly more influenced by lessons from history than, for

instance, the 2008 manual with its strong emphasis on stability operations and civil support.

By exploiting one determinant from each of the three segments of figure 4, this study intends to inform doctrine development in a threefold way. From the past, this study analyzes the role the US Army played at the end World War II for the transition in occupied Germany in order to identify historical challenges and lessons; regarding the present and the future, this study builds on the operating environment as introduced by Field Manual 3-0 and critically analyzes the multi-domain battle concept and its flanking publications in order to identify current and future cross-functional challenges, considerations, and ramifications for operations to consolidate gains at the tactical level. To do that, the second step encompasses a qualitative document analysis of both historical and current literature and doctrine and concepts, which is introduced as part of the literature review in chapter 3. Thus, this step answers the second research question: What can the US Army learn for today's consolidation of gains from doctrine and practice in the European theater at the end of World War II?; as well as the third secondary research question: What are current and future cross-functional considerations and challenges inherent in consolidating gains?

This study focuses on the historic timeframe September 1944 to May 1945. This timeframe explicitly excludes the Battle of Normandy, the Allied invasion of Western Europe beginning on 6 June and lasting approximately until the end of August 1944. Instead, this timeframe covers the allied advance into Germany across the Rhine River near Cologne as well as later-on deeper into Germany across the Elbe River near Magdeburg. This also includes the Battle of the Bulge, 16 December 1944 to 25 January 1945, and actions in the Ruhr pocket while in and around Aachen, one of the most intense urban operations during World War II. Units analyzed are the Twelfth US Army Group under General Omar Bradley and several units thereof, mainly Third Army under General George S. Patton, VII Corps under Maj. Gen. J. Lawton Collins, 75th Infantry Division (Ninth Army, XVI Corps) under Maj. Gen. Ray E. Porter, and 82d Airborne Division (Fifteenth Army, XVIII Corps) under Maj. Gen. James M. Gavin. Three reasons led to the selection of those units: (1) they represent different echelons from division level upward, (2) their histories and after action reports from the analyzed timeframe are well maintained, and (3) they participated in combat operations, which remarkably resemble the understanding of the to-be defined consolidation of gains.

In this context, it is important to recognize and account for the danger of interpreting past lessons in the context of today's terminology. Lessons from the industrial age of World War II cannot simply be transferred to the information age of today. In that sense, many historical examples throughout the text will show that the term consolidation of gains is new in doctrine, but the fundamental idea is not. While consolidation of gains during World War II happened mainly within the land, air, maritime, and information domain; today's consolidation of gains must account for the space domain as well as the evolving information environment.

In addition, to avoid confusion, it is crucial to distinguish between doctrine on the one hand and concepts on the other hand. Doctrine contains "validated principles, tactics, techniques, procedures, and terms and symbols that the force can apply;" concepts are "ideas for a significant change based on proposed new approaches to the conduct of operations or technology."[1] Thus, doctrine defines the current operational framework and environment, whereas concepts propose how the force might do something significantly different in the future operating environment. This differentiation is important, because this study uses Field Manual 3-0 as well as the multi-domain battle concept to derive both current and future doctrinal weaknesses, deductions, and conclusions for consolidation of gains. Hence, to a certain extent, blending doctrine with concepts is necessary. The two main reasons for purposefully blending doctrine with concepts are: (1) that both concepts and the current operating environment drive doctrine, and (2) that Field Manual 3-0 already embraces basic ideas of the multi-domain battle concept, such as the multi-domain extended battlefield. Notwithstanding, unified land operations is still the US Army's current operational concept, not multi-domain battle.[2]

Finally, to allow up-to-date and applicable insights, this step also includes recent planning experiences from 1st Infantry Division, Fort Riley, Kansas. The chosen population consists of the civil affairs section of 1st Infantry Division. The rationale for the selection of that sample follows three major reasons: (1) 1st Infantry Division recently underwent command post exercises, during which the doctrine this study analyzes was applied, (2) the civil affairs section encompasses all necessary warfighting functions to answer the questions provided, and. (3) 1st Infantry Division is located in close proximity to Fort Leavenworth and, therefore, easily accessible in person. The necessary data was collected with the help of a survey, containing six very general, qualitative guiding questions on how 1st Infantry Division prepares to implement and execute consolidation of gains. On purpose, the provided questions blend both doctrinal tactics and

procedures from Field Manual 3-0 with conceptual ideas from the muti-domain battle concept. The survey was voluntary and did not collect any kind of social, administrative, demographic, and personal data or individual opinions. The approval to conduct human subjects research can be found in Appendix C, the gained informed consent in Appendix D, and the survey itself, as well as the provided answers, in Appendix E. This documentation enables cross-references for chapter 4 and chapter 5 of this study.

Step 3—Deductions

Based on the document analysis of historical and current literature and doctrine as well as the answers provided by 1ID, step 3 derives deductions from the gained observations. To structure and evaluate the findings of steps two to four, this step uses a reference framework encompassing the US Army elements of combat power, including the warfighting functions. As depicted in Figure 2.1. and detailed in Figure 2.3., the elements of combat power figuratively serve as "burning glass" and literally as a recording matrix for the analytical "look" at the research questions. This recording matrix with all observations and related deductions can be found in Appendix B.

Figure 2.3. Elments of combat power.

Source: Created by author on basis of US Department of the Army, Army Doctrine Reference Publication (ADRP) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 5-1 – 5-6.

Army Doctrine Reference Publication (ADRP) 3-0 defines combat power as "the total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time."[3] In that sense, combat power includes "all capabilities provided by unified action partners that are integrated and synchronized with the commander's objectives to achieve unity of effort in sustained operations." As Figure 2.3. depicts, combat power encompasses eight elements, whereas the US Army describes the last six of those eight elements as warfighting functions. Commanders apply combat power through the six warfighting functions using leadership and information.

Against the backdrop of combat power as defined above, warfighting functions provide the tactical level with an intellectual organization for common critical capabilities and, thus, resemble the physical means to accomplish given missions.[4] Warfighting functions are the categories in and through which commanders and their staffs think, plan, prepare, execute, and assess tactical-level military operations. To do so and to synchronize a force according to commander's intent, commanders and staff have to formally and informally integrate the warfighting functions throughout the operations process.[5] Thereby, the mission command warfighting function serves as the hub, through which commanders and staffs coordinate and integrate all other warfighting functions.[6] The clustering of identified observations follows the categories of Army Doctrine Reference Publication 1-03, The Army Universal Task List. To further sharpen its focus, the anlysis zoomes in on the four combat power elements: movement and maneuver, mission command, information, and (non-lethal) fires.Those elements, have the most potential to further develop the US Army's doctrinal understanding of consolidation of gains. This apporach helps to condense the findings in accordance with the purpose of this study. The other four elements—leadership, intel, sustainment, and protection—are either already sufficiently codified in doctrine or reach far beyond this study's scope.

Step 4—Conclusions

In the final step, this study compares and contrasts the findings from the previous three steps; utilizing the deductions from step 3, chapter 4 to draw conclusions for consolidation of gains on the modern multi-domain battlefield. By doing that, this step will both answer the primary research question of this study, How can the US Army tactically best plan and execute the transition from ground combat to the consolidation of gains? and fulfill its purpose, which is to inform the US Army and Combined Arms Doctrine Directorate in the process of developing new doctrine regarding consolidation of gains.

Consequently, step 4 centers on the "D" doctrine from the doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy approach. Developing required doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy solutions marks the second module and is the cornerstone of the US Army Force Management Model.[7] This focus will help the US Army drive the necessary doctrinal change:

To ensure the Army is prepared to prevent conflict, shape the security environment, and win wars, if necessary. Change requires the continual adaptation and development of both materiel and non-materiel solutions across the Army's doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy domains.[8]

To conclude, the chosen framework, consisting of the US Army elements of combat power on the one hand and the doctrinal focus on the other hand, forms the cornerstone for the research methodology of this study. The purpose of this approach is to use a tool, which resembles the way US Army commanders and staffs think. Thus, this study will enable relevant considerations and conclusions for US Army tactical to operational level doctrine. Overall, the analysis follows the triple jump: observe and address—deduct and assess—conclude.

Notes

1. US Department of the Army, Army Doctrine Publication (ADP) 1-01, *Doctrine Primer* (Washington, DC: Government Printing Office, September 2014), 2-6.

2. For more details on Unified Land Operations as the US Army's current operational concept, see US Department of the Army, Army Doctrine Reference Publication (ADRP) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), chapter 3.

3. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 5-1.

4. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 5-2.

5. US Department of the Army, Army Doctrine Publication (ADP) 5-0, *The Operations Process* (Washington, DC: Government Printing Office, May 2012), 1-11. For more details on the US Army operations process, see US Department of the Army, Army Doctrine Publication 5-0, *The Operations Process.*

6. US Department of the Army, Army Doctrine Publication 5-0, *The Operations Process,* 1-2.

7. For more details on the Army Force Management Model and its sub-processes, see US Army War College, *How the Army Runs: A Senior Leader Handbook 2015-2016* (Carlisle, PA: US Army War College, August 2015), 3-2 – 3-4.

8. US Army Command and General Staff School, Department of Logistics And Resource Operations, *F101: Foundations of Change. Consolidated Extracts* (Fort Leavenworth: US Army Command and General Staff College, June 2017), 1.

Chapter 3
Literature Review

Introduction

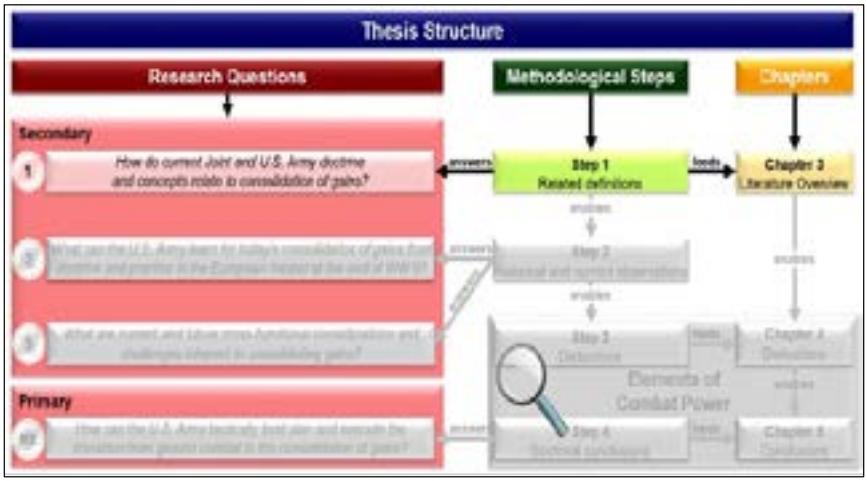

Figure 3.1. Methodological anchorage of chapter 3.

Source: Created by author.

As outlined in the research methodology, in a first sub-step, this chapter provides an overview over both historical and current problem-related literature and doctrine, and in a second sub-step, it identifies, compares, and contrasts definitions, which are directly related to consolidation of gains. Accordingly, this study rests on two broad pillars of literature. Historical literature and doctrine as first pillar mainly encompasses case studies and will provide examples and lessons of how the US Army consolidated gains and, thus, "won the peace" at the end of World War II in Germany. To complement those historical case studies as second pillar, this study also analyses current literature and doctrine. This category will help to frame both the current operational and the future operating environment as well as implications of possibly fighting peer or near peer threats on the multi-domain battlefield, see Figure 3.2.

Building on both categories, the literature review derives a set of common doctrinal and conceptual definitions. This is necessary to define new terms, such as multi-domain battle and to clarify the broad spectrum of

definitions, which are somehow related to consolidation of gains. For instance, authors use definitions interchangeably such as phase IV operations, transition operations, governance operations, occupation operations, or post-conflict operations, although partly differing concepts are related to them. In addition, because of using World War II as a historical backdrop, the two activities of military government and consolidation of gains have to be compared and contrasted.

Literature

Historical Literature and Doctrine

Figure 3.2. Pillars of literature and doctrine.

Source: Created by author.

Due to the focus of historical analysis, military government and occupation are the central themes running through the historical literature supporting this study. The unit after actions reports mentioned in chapter 2 are supplemental and set into the larger context by Earl Ziemke's *The US Army in the Occupation of Germany, 1944-1946,* the official US Army history of the occupation of Germany, published in 1975, as well as two of the so-called "green books" from the US Army in World War II series. According to the chosen timeframe and central theme, those "green books" are Harry L. Coles and Albert K. Weinberg's C*ivil Affairs: Soldiers become Governors,* first published in 1964, and Charles B. MacDonald's

United States Army in World War II: The European Theater of Operations, *The Last Offensive,* first published in 1973.

Earl Ziemke, former deputy chief of the US Army general history branch, officially examines the instituionalized "birth" of military government within the US Army as well as the organization, planning, training, and execution of the occupation of Germany, ending with the completion of tactical occupation operations in 1946. With regard to the execution of these occupation operations, Ziemke outlines the evolution of the operation plans from Rankin to Talisman to Eclipse; in addition, he describes an "army-type occupation" with divisions spread out across the countryside and company-sized units viewed as ideal for independent deployment.[1] Against that backdrop, Ziemke exemplifies that "an occupation has residual characteristics of the combat operation and that the occupation is as much the final stage of the war as it is the assumption of the victor's rights and powers."[2] One of Ziemke's conclusions is that military government as specialized function requires trained personnel, going hand in hand with the challenge to sustain this capability until its deployment.[3] In the Mediterranean and European theater of operations, those units were the civil affairs detachments, which were attached to tactical units and had the task to establish military government while the fighting was still going on. In several cases, those detachments were so close to the fight that they had to withdraw due to German counteroffensives; the battle of the Bulge being one example.[4] One particular challenge the allies in general and the civil affairs detachments in particular had to deal with in Germany was the de-nazification, the removing of all influences of the national socialist ideology from all parts of society, culture, press, economy, judiciary, and politics.

Harry L. Coles and Albert K. Weinberg, in *Civil Affairs: Soldiers become Governors,* provide an evolution of civil affairs policy and practice in the Mediterranean and European Theaters of Operations during World War II. With that, they also depict the decision-making process, which led to president Roosevelt's decision in favor of military government instead of civilian administration upon the invasion of Germany. Historical American experiences with civilian-led administrations during the American Civil War, the Spanish American War, and World War I played into that decision.[5] From the operational perspective, Charles B. MacDonald, with *The Last Offensive,* provides the last volume of the European theater of Operations subseries to the US Army in World War II history. As the title indicates, MacDonald covers the final allied offensive across the Rhine into Germany and the ultimate defeat of the German armed forces.[6]

Louis A. DiMarco, in his 2010 dissertation "Restoring Order: The US Army Experience with Occupation Operations, 1865-1962," concludes that army occupation experiences from the end of the Civil War onward positively influenced the occupations that occurred during and after World War II.[7] DiMarco argues that those occupation experiences have led to a unique American way of conducting occupation operations, comprising of several general characteristics: the primacy of installing democratic government, transitioning government to civil control as quickly as possible, understanding the limits of imposing foreign ideas on native populations, a reliance on the civilian leadership for strategic policy, as well as an emphasis on public education, the rule of law, and the health and welfare of the civilian population.[8] According to DiMarco, army doctrine in general and the army's institutional culture in particular served as facilitators of continuity and, thus, further contributed to Germany's successful restoration.[9]

Current Literature and Doctrine

For the first time in US Army doctrinal history Field Manual 3-0 officially recognizes the importance of operations to consolidate gains, only a very limited number of sources refers to it and draw relevant conclusions across all levels of war. Therefore, the recent Army Doctrine Reference Publication 3-0, *Operations* and Field Manual 3-0 are the key sources for this study. Interestingly, contrary to the usual US Army doctrinal hierarchy, Army Doctrine Reference Publication 3-0 provides detailed information on the fundamentals of operations, and Field Manual 3-0 provides the tactics and procedures for operations, which precede US Army Doctrinal Publication 3-0, *Operations* as capstone doctrinal document. Normally, Army Doctrinal Publication 3-0 sets the stage by providing the fundamental principles, upon which Army Doctrine Reference Publication 3-0 and Field Manual 3-0 builds.

Lt. Gen. Mike Lundy, Commanding General, US Army Combined Arms Center (CAC), and Col. Richard Creed Jr., Director Combined Arms Doctrine Directorate (CADD), have flanked the publication of Field Manual 3-0 with an introductory article in *Military Review.* This article exemplifies the major changes to both Army Doctrine Reference Publication 3-0 and Field Manual 3-0 in comparison to the previous versions.[10] Beyond US Army operations doctrine, this study also refers to an extensive list of joint and US Army doctrinal publications, mainly on stability operations, civil affairs, military government, mission command, and leadership.

To complement the recent doctrine, this study also analyzes the multi-domain battle concept and its accompanying literature. In December 2017, the US Army Training and Doctrine Command officially published this concept. A series of four articles of Gen. David G. Perkins, former Commanding General, TRADOC, as well as the Army-Marine Corps white paper *Multi-Domain Battle: Combined Arms for the 21st Century* paved the way for the multi-domain battle concept.[11] The latest development in that evolution is the combined article "Multidomain Battle, Converging Concepts Toward a Joint Solution" by Gen. David G. Perkins and General James M. Holmes, Commander US Air Force Combat Air Command.[12] As indicated above, Army Doctrine Reference Publication 3-0 and Field Manual 3-0 already cover central ideas of the multi-domain battle concept, such as the multi-domain operational framework; however, the multi-domain battle concept adds additional aspects to this operational framework, which are relevant for consolidation of gains.

The primary research question of this study, how can US Army Divisions best plan and execute the transition from ground combat to the consolidation of gains, is sparked by Nadia Schadlow's dissertational thesis, that the US military overall is not organized, trained and equipped to successfully consolidate the "political order, which requires control over territory and the hard work of building local government institutions."[13] According to Schadlow, previous deputy assistant, White House National Security Adviser, the major reason for that shortfall is that "American civilian and military leaders have been reluctant to think through, operationalize, and resource efforts needed to consolidate political gains in war."[14] Many negative examples, such as Afghanistan, Iraq, or also Libya, illustrate that the failure to consolidate gains results in "protracted conflicts, increased costs, higher causalities, and the loss of public support for the effort."[15] All in all, Schadlow analyzes four explanations for this "denial syndrome:" (1) democratic discomfort with the idea of military lead in political activities, (2) American concerns about colonialism and governing others, (3) the persistent belief in civilian lead in governance operations, and (4) the Army's narrow emphasis on the tactical defeat of adversaries.[16] In conclusion, she develops five recommendations to overcome the "denial syndrome," all directed towards both the political and military strategic-level leadership: (1) the acceptance that war is inherently political, (2) the need for unity of command instead of unity of effort, (3) the necessity for military operational control instead of civilian control, (4) the realization that stand-off kinetic means do not address the root causes of conflicts and (5) the need for standing military capabilities and organizations pre-

pared for key governance tasks.[17] Schadlow concludes that the US Army has always served as the "critical operational link" and "leading role" in shaping transitions from a military defeated regime to one more compatible with US interests.

In his introductory key note presentation at the 2004 annual military symposium on *Turning Victory into Success,* Conrad C. Crane, Chief Historical Services, US Army Heritage and Education Center, US Army War College, anticipates two of Schadlow's four explanations for the "denial syndrome:" the common belief in the necessity of civilian lead in governance operations as well as the predominant focus of the military on winning wars. Crane further suggests, that quick and decisive battle—other than during and at the end of World War II—will hinder, if not, prevent detailed planning for phase IV *Stabilize* during phase III *Dominate*.[18]

Summary

In her in 2016 published dissertation *War and the Art of Governance: Consolidating Combat Success into Political Victory,* Schadlow focuses on political and military strategic-level analysis and recommendations. She points out the military as a "critical operational link" to achieve America's political objectives in wartime and to set a foundation for the development of longer-term strategic outcomes, but forgets to provide operational and tactical level takeaways for the Army as that "operational link."[19] To fill that void, the recently released Army Doctrine Reference Publication 3-0 and Field Manual 3-0 form a first and very important doctrinal step towards a broad understanding of the concept of consolidation of gains across all levels of political and military leadership. This is just a starting point to a much-needed broader debate about and a more detailed doctrine on the topic. Thus, the US Army doctrinally accounts at least partly for Schadlow's recommendations to overcome the "denial syndrome." Field Manual 3-0 indirectly recognizes that "success in war ultimately depends on the consolidation of political order, which requires control over territory and the hard work of building local government institutions."[20] This necessity for local government is closely related to military support to governance or—if necessary—military government, which underlines the need for the historical analysis of this study.

The US Army's occupation of Germany during and after World War II set the conditions for the German *Wirtschaftswunder* (economic miracle) in the 1950s and ultimately for Germany's North Atlantic Treaty Organization (NATO) membership in 1955. Therefore, this occupation regularly serves as a positive example and benchmark for many other comparable

and often times failed attempts of nation building thereafter. Against that backdrop, two of DiMarco's arguments are of importance: First, the role of US Army doctrine as a continuity factor; and second, the general characteristics of the American way of occupation as well as the influence and applicability of those characteristics today. In the same sense as DiMarco, Dobbins et al., and Andrew Rawson argue that the level of effort that the US government has invested into planning, preparing, and executing Germany's occupation significantly contributed to the US Army's long-lasting success.[21]

Ziemke clearly depicts the most significant differences between large-scale combat on the one hand and occupation on the other hand. While objectives, success, and outcomes are obvious in battle, occupation lacks that clarity. In that sense, Ziemke's official Army history of the occupation of Germany offers many implications, which will be further analyzed as part of chapter 4. For instance, as Ziemke points out, long scale combat operations are very likely to lead to "hatred" and "aroused public opinion."[22] During the occupation of Germany, this further complicated already challenging tasks such as the de-nazification. An occupation force, therefore, is always an instrument of social and political change with the sole aim of military government to further military objectives.

Definitions

This study rests upon two sets of definitions—operational and transitional. The operational definitions—including the operating environment, the operational framework, multi-domain battle, and the levels of war—mainly cover current and future considerations; the transitional definitions—including consolidation of gains itself, stability, enabling civil authority, post-conflict and transition operations, governance operations, military government, and civil affairs operations—mainly provide the ground for historic considerations.

Transitional Definitions

Consolidation of gains

Field Manual 3-0 defines "consolidate gains" as the "activities to make enduring any temporary operational success and set the conditions for a stable environment allowing for a transition of control to legitimate authorities."[23] During large-scale combat operations, Army forces focus on the defeat and destruction of enemy ground forces; thus, consolidating gains becomes the focus of Army forces after large-scale combat operations have concluded. Consolidation of gains activities are conducted by a

separate maneuver force in designated consolidation areas—corps or division. Lt. Gen. Lundy describes the consolidation area—set apart from the close and support area—as well as the associated tasks as follows:

> Consolidation areas are dynamic, as the units assigned them initially conduct offensive, defensive, and minimal stability tasks necessary to defeat bypassed forces, control key terrain and facilities, and secure population centers. Over time, as the situation matures, the mix of tactical tasks is likely to be equal parts security and stability, but security-related tasks always have first priority.[24]

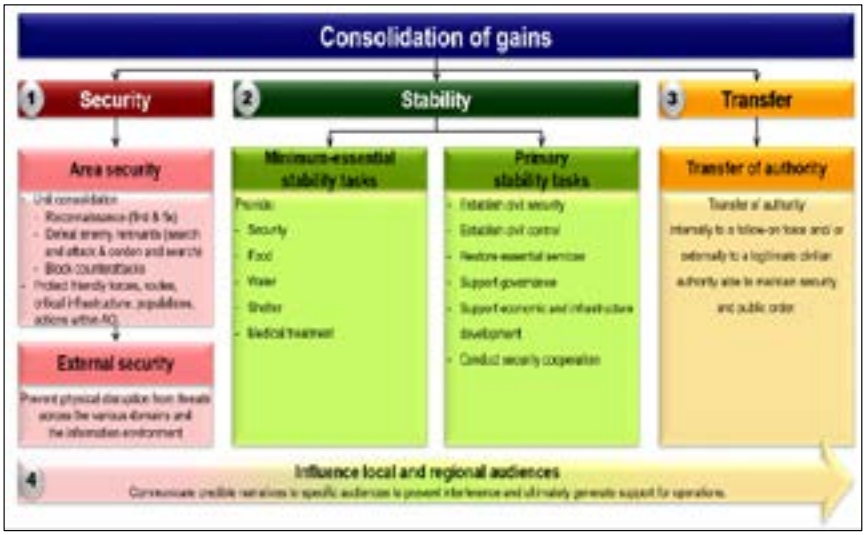

Figure 3.3. Consolidation of gains activities.

Source: Created by author. This figure visualizes the consolidation of gains activities as introduced across chapter 8 of Field Manual 3-0. For more details, see US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 8-2 – 8-3, 8-7 – 8-13.

Although Field Manual 3-0 recognizes the possible simultaneity of consolidation of gains activities, at the same time it suggests a certain sequence of those activities. As Figure 3.3. illustrates, this sequencing generally follows a four-step process.

Consolidation of gains is an integral and continuous part of armed conflict.[25] Hence, consolidation of gains links joint phase III *Dominate* even stronger to the following phases IV *Stabilize* and V *Enable Civil Authority* than ever before. Consequently, the responsible unit must concurrently plan for both, combat and consolidation of gains.[26] Importantly, the definition, activities, and purpose indicate consolidation of gains spans across all levels of war—tactical, operational, and strategic. Successful execution of tactical consolidation activities leads to the manifestation of operational objectives contributing to the strategic military end state. This study regularly recurs to the inherent three-dimensionality of consolidation of gains.

Stabilize and enable civil authority

The US Army's strategic role to consolidate gains mainly encompasses the joint phases IV *Stabilize* and V *Enable Civil Authority.*

Stability operations phase IV are "an overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief."[27] Principles of stability operations—laying the foundation for long-term stability—are (1) conflict transformation, (2) unity of effort and unity of purpose, (3) legitimacy and host-nation ownership, and (4) building partner capacity. Doctrine further differentiates between minimum-essential stability tasks and primary stability tasks, see Figure 3.3.[28] Normally, stability tasks are conducted in a peacetime environment, during conflict, or in a post-conflict situation in support of a host-nation government. When no legitimate government exists, stability tasks may also support a transitional civil or military authority.[29] Army Doctrine Reference Publication 3-07, *Stability* explicitly takes transitional military authority as interim solution into consideration: "Military forces may assume the powers of a sovereign governing authority under two conditions: when military forces intervene in the absence of a functioning government or when military operations prevent a government from administering to the public sector and providing public services."[30] For consolidation of gains, the principle unity of effort is of particular importance. Unity of effort is "the coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization."[31]

According to Field Manual 3-0, phase V *Enable Civil Authority* is primarily characterized by joint force support to legitimate civil governance. Its purpose is to help civil authority regain its ability to govern and administer services and other needs of the population. Thus, this phase enables the achievement of the military end state.[32]

Post-conflict and transition operations

Conrad C. Crane points out that phase IV stability operations are often also described as "post-conflict operations." This interchangeable use of both terms is misleading because stability operations mostly do not occur after, but parallel to large-scale combat operations. Due to this transitional character of stability operations, Crane suggests transition operations as a better descriptive term. During such transition operations, military forces try to position the area of operation to move back to peace and under control of civilian government."[33]

Governance operations

Schadlow defines all "political and military activities undertaken by military forces to establish and institutionalize a desired political order during and following the combat phase of war" as "governance operations." As those "governance operations" are integral and inherent to all kinds of wars, Schadlow stresses the need for preparation and respective resources.[34] In the same sense as Crane, Schadlow underlines the overlap of "transition operations" and "governance operations" with combat. Her focus on political and military activities neglects, at least as part of the definition, economical and informational activities which the military must undertake as part of such governance operations.

Military government and civil affairs operations

The identification of historical challenges and lessons regarding the role the US Army played at the end World War II necessitates to compare and contrast consolidation of gains with the concept of military government. According to the 1949 Command and General Staff College manual *Military Government,* military government includes "all powers and responsibilities exercised by a military commander in an occupied territory over the government, the inhabitants, and the lands and properties thereof."[35] The reasons for the establishment of military government are either military necessity as a right, or the obligation imposed by international law.[36] The Command and General Staff College manual further differentiates between a combat type of military government during the combat phase and an occupational type thereafter. Limits for military government

are the rules of international law as well as established customs of war.[37] According to Richard M. Whitaker, military government, in comparison to civilian administration, offers several significant advantages: "the consolidation of security and reconstructive planning and execution, a single line of authority, superior manning, a growing number of highly trained civil administration experts, a superior grasp of the terrain and those that live on it, all harnessed by highly proficient leadership."[38]

Based on the 1949 understanding of military government, the current Field Manual 3-57, *Civil Affairs Operations* defines the essence of civil affairs operations as the conduct of civil affairs core tasks synchronized and integrated with the supported commander's intent and operational concept. Civil affairs core tasks involve the application of civil affairs functional specialty skills in areas that are normally the responsibility of civil government to enhance the conduct of civil military operations. Of significance for consolidation of gains is the civil affairs core task "support to civil administration."[39] This support differentiates between civil administration either in friendly or in occupied territory. In occupied territory, support to civil administration encompasses the "establishment of a temporary government, as directed by the SecDef [Secretary of Defense], to exercise executive, legislative, and judicial authority over the populace of a territory that US forces have taken from an enemy by force of arms until an indigenous civil government can be established."[40]

Operational Definitions

Operating environment

Despite the delineation in chapter 1, a more precise understanding of the operating environment is mandatory in order to follow the deductions of chapter 4 and the conclusions of chapter 5. Joint Publication 3-0, *Joint Operations* defines an operating environment as "a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander." It encompasses physical areas of the air, land, maritime, space, and cyberspace domains as well as the information environment, the electromagnetic spectrum, and other factors.[41] Perkins and Holmes conclude that enemies and adversaries of the US have learned three fundamental lessons:

> First, do not let the United States and its allies gain access to the area of operations. Once established, we have the operational advantage and can provide overwhelming logistic, firepower, and command and control (C2) support. Second, try to fracture our operational framework by isolating the air domain from the

> land domain in order to defeat air and land forces in sequence. Third, fix us and do not allow our forces to maneuver and bring all of our elements of combat power (including leadership) to bear in order to gain a position of advantage.[42]

For the first time in US Army doctrinal history, Field Manual 3-0 names the enemies and adversaries, which possess the capabilities to contest and degrade the battlefield across all domains as the "4+1:" Russia, China, North Korea, and Iran as well as radical ideologues and transnational criminal organizations, such as Islamic State of Iraq and the Levant or al-Qa'ida. As Figure 3.4. illustrates, those threats continuously challenge the US in multiple domains and in most cases purposefully below the threshold of open conflict or, as Lt. Gen. (ret.) James M. Dubik and Nic Vincent call it, in the gray zone.[43] Thus, according to Perkins the operating environment "will be defined by an enemy who will challenge our ability to maintain freedom of maneuver and superiority across the air, cyberspace, land, maritime, and space domains, and the electromagnetic spectrum."[44]

A look into the multi-domain battle concept reveals, how the operating environment continues to change in four fundamental and interrelated ways: (1) the emerging operating environment is contested in all domains; (2) it is increasingly lethal across the entire operational area; (3) it is complex, for instance, through the combination of regular and irregular forces with criminals and terrorists; and (4) deterrence is more and more challenged, for example, through the enemy's artful employment of all instruments of national power.[45] Those developments, combined with the aforementioned adversary lessons learned, translate into three significant effects of change for the battlespace. The battlespace—now and in the future—is expanded in time (phases), domains, geography (space and depth), and actors; it is converged through unprecedented concentration of capabilities and centralized political and military systems; and it is compressed regarding the three levels of war.[46] Consequently, in armed conflict, the enemy is capable of simultaneously attacking strategic, operational, and tactical targets within multiple domains throughout the battlespace with the purpose of overwhelming existing mission command practices and systems and forcing friendly forces to fight isolated, domain-centric battles without mutual support.[47] The muti-domain battle concept defines the resulting military problem as follows: How will US ground forces, as part of the Joint Force and with partners, deter and defeat increasingly capable peer adversaries' intent on fracturing allied and Joint Force cohesion in competition and armed conflict?[48]

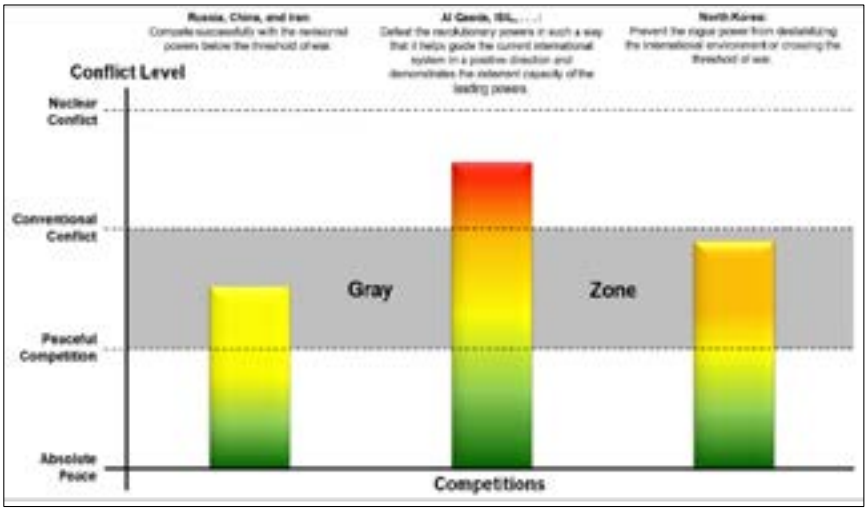

Figure 3.4. Tri-challenge Rubik's cube of the operating environment.

Source: Created by author on basis of James M. Dubik and Nic Vincent, *America's Global Competitions: The Gray Zone in Context* (Washington, DC: Institute for the Study of War, 2018), 8-9.

Operational framework and concept

Field Manual 3-0 modifies the operational framework to best embrace multi-domain battle. Therefore, Field Manual 3-0 does not only add the consolidation area to the operational framework, but it also introduces physical, temporal, cognitive, and virtual considerations; list follows.[49] Those considerations are related to all framework areas as well as the focus of a particular echelon, see Figure 3.5. The operational framework considerations vary in terms of focus and priority depending upon the echelon, force capabilities, and the operating environment. While physical, virtual, and information related capabilities all influence friendly, adversary, and enemy behavior; cognitive considerations relate to decision-making, both friendly and enemy, and the perceptions and behavior of populations and the enemy.[50] The purpose of the operational framework consideration is to provide a "lens" to look at multiple domains and the information environment in the context of operations on land.[51]

Operational framework considerations list:

- Physical: Relevant physical aspects of each domain such as geography, terrain, infrastructure, populations, distance, weapons ranges and effects, known enemy locations, climate, weather, etc.

- Temporal: Temporal considerations cross the physical domains and the dimensions of the information environment encompassing aspects such as when capabilities can be used, how long they take to generate and employ, and how long they must be used to achieve desired effects.

- Virtual: Virtual considerations are those pertaining to activities, capabilities, and effects relevant to the layers of cyberspace.

- Cognitive: Cognitive considerations relate to people and how they behave. They include unit morale and cohesiveness, as well as perspectives and decision making.[52]

Multi-domain battle concept

As the focus of this study is Field Manual 3-0, considerations from the multi-domain battle concept will only account for those aspects, which are of relevance for consolidation of gains. Overall, the multi-domain battle concept is an operational concept with strategic and tactical implications providing commanders of a Joint Force the multiple options required to deter and defeat highly capable peer enemies. The theoretical foundation of the multi-domain battle concept is that the nature of war remains unchanged. As Figure 3.6. illustrates, instead of assuming a linear conflict continuum from peace to war and back to peace, the multi-domain battle concept rests on a cyclical conflict continuum, which is defined by three circular stages.[53]

Against that backdrop, competition, on the one hand, is defined as the condition "when two or more actors in the international system have incompatible interests but neither seeks to escalate to open conflict in pursuit of those interests." During competition, violence is not the adversary's primary instrument. On the other hand, armed conflict resembles the condition "when the use of violence is the primary means by which an actor seeks to satisfy its interests."[54]

Sophisticated peer enemy threats lead to the fact that a Joint Force can no longer assume continuous superiority in any domain. Hence, the interrelationship of multiple domains—air, land, maritime, space, and the information environment, including cyberspace—requires a cross-domain understanding of the emerging operating environment. In armed conflict,

multi-domain battle aims at "a rapid campaign of maneuver across all areas of the expanded battlespace in multiple domains and locations simultaneously, denying the enemy its strategic objectives without escalation." To return from armed conflict to competition, the Joint Force has to deal with a still-capable peer adversary. Multi-domain battle allows to retain the initiative and consolidate the before won gains by "helping restore public services, reestablish law and order, and isolate and defeat the adversary's subversive activities."[55] In short, multi-domain battle requires flexible and resilient ground formations that project combat power from land into other domains to enable Joint Force freedom of action, as well as to seize positions of relative advantage and control key terrain to consolidate gains.[56] In this context, the multi-domain battleconcept also formulates several central problems. Amongst them is the question, how US forces can consolidate gains and produce sustainable outcomes, set conditions for long-term deterrence, and adapt to the new security environment?

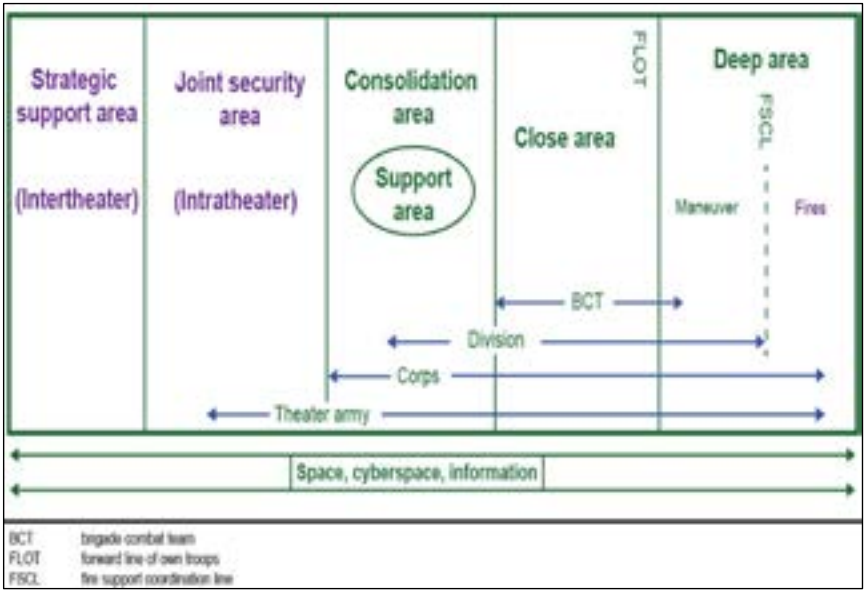

Figure 3.5. Corps area of operations within a theater of operations.

Source: US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 1-30.

Contributing to the multi-domain battle discussion, Perkins and Holmes add the aspects of jointness and command. In this context, they present a joint battlefield framework by inegrating both the Army and Air Force frameworks with each other, and, furthermore, by stipulating the discussion about the commander's role within that framework and within the operations process:

> These frameworks have worked separately over the past 30 years. Recent advancements by peer adversaries across the globe—drive a requirement for the Services to adopt a new framework to achieve a continuing advantage in a contested, degraded, and operationally limited environment:Victory in future combat will be determined by how successfully commanders can understand, visualize, and describe the battlefield to their subordinate commands, thus allowing for more rapid decision making to exploit the initiative and create positions of relative advantage.[57]

Despite this realization, Perkins and Holmes conclude that the Army and Air Force are currently having "somewhat differing perspectives on mission command versus C2 and on a battlefield framework." Additionally, they leave the question of how the commander should best understand, visualize, and describe the battlefield, against the backdrop of the ever-increasing complexity of multi-domain battle, unanswered.[58] Both, the US Army as well as the US Air Force will have to define, how and to what extent mission command as a philosophy is suited to prepare tactical units for muti-domain battle.

Levels of War

According to Joint Publication 1-0, the three levels of war—strategic, operational, and tactical—link tactical actions in the field to the achievement of national objectives. The strategic level employs the instruments of national power (diplomatic, information, military, and economic) to achieve theater and multinational objectives. The operational level builds a bridge between the strategic and the tactical level by establishing operational objectives needed to achieve the military end states and strategic objectives. The tactical level of war is where battles and engagements are planned and executed to achieve military objectives assigned to tactical units or Joint Task Forces.[59] Distinction of the levels of war is important for this manuscript due to its tactical to operational focus, the inherent three-dimension of consolidation of gains, and the recurring interrelationship of the levels of war with the to-be-introduced levels of leadership.

The multi-domain battle concept describes how the levels of war might evolve in the future. Against the backdrop of the clear-cut distinction between the three levels of war, the multi-domain battle concept describes the current and future battlespace as strategically to tactically compressed. This strategic-to-tactical compression is caused by the ability of adversaries to both expand the battlespace and converge multi-domain capabilities, while at the same time presenting multiple forms of contact simultaneously to friendly forces.[60]

Figure 3.6. Cyclical conflict continuum.

Source: Created by author on basis of Gen. David G Perkins, "Multi-Domain Battle, The Advent of Twenty-First Century War," *Military Review* 97, no. 6 (November-December 2017): 10.

Conclusion

The purpose of chapter 3 was to provide an overview of historical and current problem-related literature and doctrine as well as to identify, com-

pare, and contrast definitions, which are directly related to consolidation of gains. Against this backdrop, this chapter allows for three major conclusions. All three conclusions will be carried through the remaining three methodological steps of this study.

First, the delineation of transitional definitions clearly indicates that consolidation of gains is not a synonym, but to a large extent serves as an "umbrella" for most of the outlined definitions. At the same time, as Figure 3.7. illustrates, the consolidation of gains "umbrella" does not span all aspects of the above introduced concepts and definitions. The "conditio sine qua non" for operations to consolidate gains is the existence of some kind of legitimate civil governance. Notwithstanding, Field Manual 3-0, in contrast to the successful World War II experience with military government, does only mention "support to governance" as one of the consolidation of gains activities, but it does not explicitly take the establishment of military government into consideration; consolidation of gains activities do not account for this eventuality. The "Consolidation of gains umbrella" visualizes this doctrinal gap. This study will further examine this doctrinal discrepancy as part of the following chapters.

Second, as suggested by the multi-domain battle concept, the strategic-to-tactical compression of the battlefield—caused by the ability of adversaries to both expand the battlespace and converge multi-domain capabilities at the same time—has consequences for all levels of war. Tactically, US forces become vulnerable to lethal and non-lethal effects from any and at any place in the world; operationally and strategically, adversaries challenge the deployment and echeloning of US forces.[61] If the strategic-to-tactical compression of the battlefield makes tactical US forces generally vulnerable anywhere and anytime, this also applies to operations to consolidate gains and, for instance, to search and attack operations against bypassed enemy forces, although those might have been isolated from physical lines of communication (LOC) and support. During World War II, an enemy unit, which had been bypassed, was normally and automatically cut off from any kind of support, including fires and logistics. In many cases, such a tactical isolation had tremendous consequences for the morale of the encircled enemy elements. On today's multi-domain battlefield, this truism has changed. An enemy unit, which gets physically isolated, is not necessarily cut off, for instance, from (deep) fire support, both lethal and non-lethal. This reality of the multi-domain battlefield has severe consequences for operations to consolidate gains. Basically, complete isolation across all domains and in all environments is necessary.

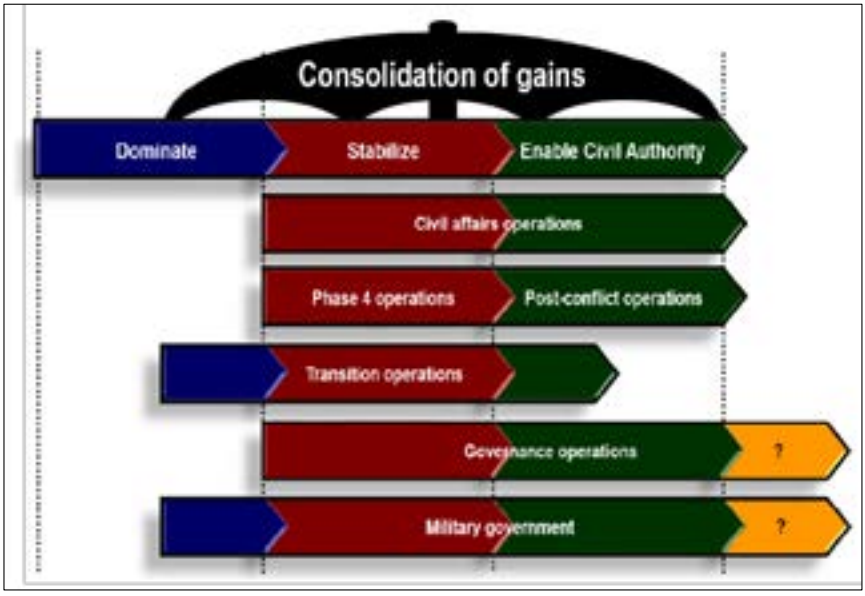

Figure 3.7. Consolidation of gains "umbrella."

Source: Created by author. This figure depicts all introduced definitions and compares and contrasts them with consolidation of gains. For more details on consolidation of gains, see US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 8-2 – 8-3.

Finally, multi-domain battlewith its domains and environments has added additional layers of complexity to the concept of consolidation of gains. As an example, at the end of World War II, the information environment certainly played a role for successful consolidation of gains by the US Army forces. The chapter 4 analysis will underline that. Maneuvering in the information environment has the potential to decide if a war is ultimately perceived as won or lost. Consequently, it is not sufficient to physically consolidate gains against enemy remnants; instead, it is equally important to virtually and cognitively consolidate gains in the information environment.

In addition to those two multi-domain conclusions, the multi-domain battle concept holds further implications, which are related to consolidation of gains, but which go beyond the scope of this study. For instance, the multi-domain battle concept associates consolidation of gains mostly

with the return from armed conflict to competition. In such a return to competition after armed conflict, the battlespace will initially be characterized by widespread violence and enemy conventional forces retaining significant lethality, occupying some friendly terrain, and preventing a rapid reduction in violence.[62] The strategic-to-tactical compression as well as the importance of the information environment indicate that consolidation of gains is not limited to the return from armed conflict to competition, but has to occur along the entire cyclical conflict continuum, see Figure 3.6. This leads to the assumption that US forces are continuously, at least, in competition. In competition, "forces actively campaign to advance or defend national interests without the large-scale violence that characterizes armed conflict."[63] Consequently, consolidation of gains not only applies to armed conflict and the return to competition, but also to competition below the threshold of open conflict. This study will address those challenges in chapter 5 as part of the recommendations for further research.[64]

Notes

1. Operation Eclipse assumed a surrender of Germany and defined this surrender in two ways: Either as an instrument formally signed by a German government or the German High Command, or as a decision to be made by Eisenhower when the majority of the German forces had capitulated or been overpowered. The operation consisted of two phases, whereas the second phase centered around five objectives. Those were: (1) primary disarmament and control of the German forces; (2) enforcement of the terms of surrender or the will of Supreme Headquarters Allied Expeditionary Forces (SHAEF) in the event there was no surrender; (3) establishment of law and order; (4) beginning of the total disarmament of Germany; and (5) redistribution of allied forces into their national zones. For more details on operation Eclipse and the "army-type occupation," see Earl F. Ziemke, *The US Army in the Occupation of Germany 1944-1946* (Washington, DC: Center of Military History, 1975), 163-167, 320-322.

2. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 320-322, 444.

3. Ziemke, 320-322, 448.

4. In the run-up to the German offensive through the Ardennes, the affected military government detachments officers came to the common conclusion only to withdraw in the most extreme necessity for the following reasons: (1) presence in town assists the local tactical unit; (2) departure would be obvious to civilians who have already seen a group and a battalion headquarters leave and would have serious effect on morale possibility resulting in a mass evacuation that would be difficult for tactical units to control; (3) military government would be handicapped in the future in the "Kreis," if the unit departed leaving those who had cooperated at the mercy of the German military." For details, see Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 154.

5. Harry L. Coles, and Albert K. Weinberg, *United States Army in World War II: Special Studies; Civil Affairs: Soldiers become Governors* (Washington, DC: Office of the Chief of Military History, Department of the Army, 1964), 3-9, 14-21.

6. Charles B. MacDonald, United States Army in World War II: The European Theater of Operations, *The Last Offensive* (Washington, DC: Center of Military History, United States Army, 1993).

7. Louis A. DiMarco, "Restoring Order: The US Army Experience with Occupation Operations, 1865-1962," (PhD Diss., Kansas State University, Manhattan, KS, 2010), V.

8. DiMarco, 353.

9. Christopher Knowles, in his recent study *Winning the Peace: The British in Occupied Germany, 1945-1948,* indirectly confirms DiMarco's thesis, but for the British military. Knowles conducts a biographical analysis examining twelve British individuals, including the British generals Montgomery, Robertson, and Bishop. As central conclusion, he suggests that a remarkable change in

British policy occurred from the very restrictive "Four D's" of de-militarization, de-nazification, de-industrialization, and democratization, agreed at Potsdam, to a more positive policy, which he describes as the "Three R's" of physical and economic reconstruction, political renewal, and personal reconciliation. In particular the mentioned army generals were mainly interested in restoring order from chaos, preventing unrest, and preserving the established social order, following missionary ideals such as "saving the soul of Germany." One central assumption of all analyzed biographies was that "winning the peace"—for the British—meant preventing the Nazi party and its affiliates from regaining power and, ultimately, preventing another war. For details, see Christopher Knowles, *Winning the Peace: The British in Occupied Germany 1945-1948* (London: Bloomsbury Publishing, 2017), 179-180.

10. Lt. Gen. Mike Lundy and Col. Rich Creed, "The Return of US Army Field Manual 3-0, Operations," *Military Review* 97, no. 6 (November-December 2017): 14-21.

11. For details see Edwin B. Werkheiser, "Multi-Domain Battle: Combined Arms for the 21st Century," (Army-Marine Corps White Paper, US Army Training and Doctrine Command, Fort Eustis, VA, February 2017); Gen. David G Perkins, "Multi-Domain Battle, Driving Change to win in the Future," *Military Review* 97, no. 4 (July-August 2017): 6-12; Gen. David G Perkins, "Preparing for the Fight Tonight: Multi-Domain Battle and Field Manual 3-0," *Military Review* 97, no. 5 (September-October 2017): 6-13; and Gen. David G Perkins, "Multi-Domain Battle, The Advent of Twenty-First Century War," *Military Review* 97, no. 6 (November-December 2017): 8-13.

12. Gen. David G. Perkins and Gen. James M. Holmes, "Multidomain Battle, Converging Concepts Toward a Joint Solution," *Joint Force Quarterly,* no. 88 (1st Quarter 2018): 54-57.

13. Schadlow, *War and the Art of Governance,* 1.

14. Schadlow, 272.

15. Schadlow.

16. Schadlow, 14-23.

17. Schadlow, 272-280.

18. Crane, "Where Wars are Really Won," 1.

19. For more tactical-level conclusions, see for instance G. John Ikenberry, *After Victory; Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars* (Princeton, NJ: Princeton University Press, 2001); and Garland H. Williams, *Engineering Peace: The Military Role in Postconflict Reconstruction* (Washington, DC: United States Institute for Peace, 2005).

20. Schadlow, *War and the Art of Governance,* 1.

21. James Dobbins et al., *America's Role in Nation Building: From Germany to Iraq,* (Santa Monica, CA: RAND Corporation, 2003), xix, 8-10; and Andrew Rawson, *Organizing Victory: The War Conferences 1941-45,* (Brimscombe Port, Great Britain: The History Press, 2013), 6-8.

22. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 445.

23. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* Glossary-2.

24. Lundy and Creed, "The Return of US Army Field Manual 3-0, Operations," 19.

25. US Department of the Army, Field Manual 3-0, *Operations,* 1-15 – 1-16.

26. To consolidate gains is not the same as unit consolidation as part of actions on the objectives of an offensive operation. In this sense, consolidation means "organizing and strengthening a newly captured position so that it can be used against the enemy." For more details, see US Department of the Army, Field Manual (FM) 3-90-1, *Offense and Defense,* Volume 1 (Washington, DC: Government Printing Office, March 2013), 3-20.

27. Unity of effort is important, because stability operations are usually conducted by, with, and through a whole-of-government approach (interagency partners based inside the U.S.) and/ or a comprehensive approach (interorganizational partners based outside the U.S.). For more details, see US Department of the Army, Field Manual 30, *Operations,* chapter 3.

28. US Department of the Army, Army Doctrine Reference Publication (ADRP) 3-07, *Stability* (Washington, DC: Government Printing Office, August 2012), 10-13.

29. *Stability,* 2-2.

30. *Stability,* 2-10.

31. *Stability,* 2.

32. US Department of the Army, Field Manual 3-0, *Operations,* 1-14.

33. Crane, "Where Wars are Really Won," 1.

34. Schadlow, *War and the Art of Governance,* X. The above introduced consolidation area partly accounts for Schadlow's demand to prepare for governance operations and to set aside additional resources.

35. Command and General Staff College, *Military Government* (Fort Leavenworth, KS: Command and General Staff College, July 1949), 1.

36. Richard M. Whitaker expresses the notion that "the obligation of governance begins immediately upon the occupant's seizure of the territory." For his line of thought, see Richard M. Whitaker, "Military Government in Future Operations," (Strategy Research Project, US Army War College, Carlisle, PA, 2006), 7. This view, however, does not concur with the Department of Defense 2015 Law of War Manual. For details on when and how military government applies according to this manual, see Department of Defense, Office of General Counsel, *Law of War Manual* (Washington, DC: Department of Defense, June 2015), 735-821, accessed 14 January 2018, https://www.defense.gov/Portals/1/Documents/law_war_manual15.pdf.

37. Command and General Staff College, *Military Government,* 10-14.

38. Whitaker also analyzes advantages of civilian administration: "it draws upon a wider base of academic and professional expertise, and it should generate less animosity between itself and the occupied population, thereby reducing the possibility of armed or other forms of resistance." Notwithstanding, he labels those advantages as potential advantages, because they seldom materialize. The

mature military civil-affairs capability, however, has been repeatedly employed throughout recent conflicts. For details on the comparison of advantages of military government and civil administration, see Whitaker, "Military Government in Future Operations," 7-10.

39. US Department of the Army, Field Manual (FM) 3-57, *Civil Affairs Operations* (Washington, DC: Government Printing Office, October 2011), 3-1.

40. *Civil Affairs Operations,* 3-18.

41. Joint Chiefs of Staff, Joint Publication 3-0, *Joint Operations* (Washington, DC: Government Printing Office, January 2017), XIV.

42. Perkins and Holmes, "Multidomain Battle, Converging Concepts Toward a Joint Solution," 54-55.

43. For details on how field manual 3-0 depicts the current operating environment, see US Department of the Army, Field Manual 3-0, *Operations,* Foreword and IX. For details on America's competiton in the gray zone, see James M. Dubik and Nic Vincent, *America's Global Competitions: The Gray Zone in Context* (Washington, DC: Institute for the Study of War, 2018).

44. Perkins, "Multi-Domain Battle, The Advent of Twenty-First Century War," 6-7.

45. US Army Training and Doctrine Command, *Multi-Domain Battle,* 4-6.

46. *Multi-Domain Battle,* 6-8.

47. *Multi-Domain Battle,* 18.

48. *Multi-Domain Battle,* 21.

49. Field Manual 3-0 does not only add the consolidation area to the previously designated deep, close, and support areas, but also the strategic support area, joint security area (JSA), and a deep fires area. For more details regarding the differences between the new and previous Field Manual 3-0's, see Lundy and Creed, "The Return of US Army Field Manual 3-0, Operations," 17-21.

50. US Department of the Army, Field Manual 3-0, *Operations,* 1-26 – 1-27.

51. Lundy and Creed, "The Return of US Army Field Manual 3-0, Operations," 20.

52. Created by author. For details on the operational framework considerations according to Field Manual 3-0 see US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 1-26 – 1-27.

53. Perkins, "Multi-Domain Battle, The Advent of Twenty-First Century War," 11.

54. Interestingly, in the case of World War II, upon completion of armed conflict the US returned to competition not with its previous adversaries, the axis powers, but with its former allies—Russia and China. For details on the cyclical conflict continuum, see US Army Training and Doctrine Command, *Multi-Domain Battle,* 72.

55. US Army Training and Doctrine Command, *Multi-Domain Battle,* 22.

56. Werkheiser, "Multi-Domain Battle," 3.

57. Perkins and Holmes, "Multidomain Battle, Converging Concepts Toward a Joint Solution," 56.

58. Perkins and Holmes, 57.

59. For more details on the levels of war, see Joint Chiefs of Staff, Joint Publication 1-0, *Doctrine for the Armed Forces of the United States,* (Washington, DC: Government Printing Office, March 2013), I-7 – I-8.

60. US Army Training and Doctrine Command, *Multi-Domain Battle,* 7-8.

61. Echeloning or echelonment describes the maneuver of forces from the Strategic and Operational Support Areas into the Tactical Support Area and Close Area. For details on how the "strategic-to-tactical compression" of the battlefield influences friendly forces at all levels of war, see US Army Training and Doctrine Command, *Multi-Domain Battle,* 7.

62. US Army Training and Doctrine Command, *Multi-Domain Battle,* 20-21.

63. *Multi-Domain Battle,* 2 and 73.

64. As critique, historical examples, such as Germany, Japan, and Italy after World War II, show that armed conflicts in form of large-scale combat operations do not necessarily mount back into competition. The same principle might very well apply to possible armed conflicts with current peer and near pear adversaries.

Chapter 4
Deductions

Overview

The analysis accounts for two of the four methodological steps of this study: (1) the qualitative document analysis of both the introduced historical as well as the current problem-related literature and doctrine and (2) the derivation of deductions based on the gained observations, see Figure 4.1. Thus, the analysis will further answer the second and third secondary research questions.

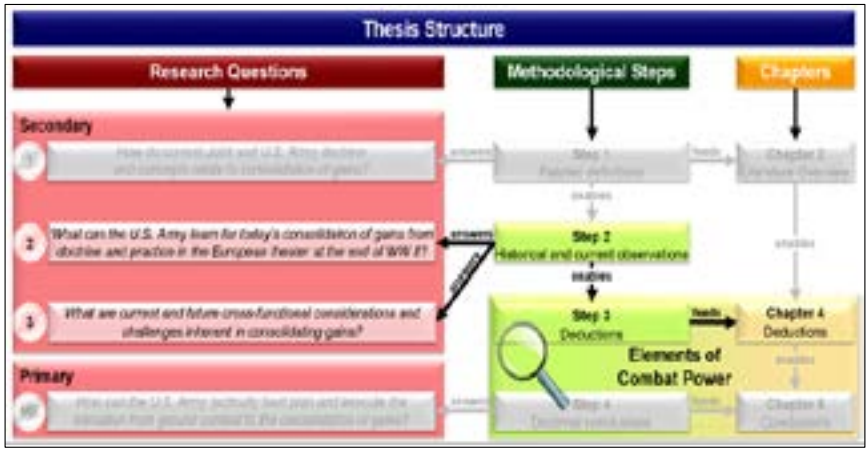

Figure 4.1. Methodological anchorage of chapter 4.

Source: Created by author.

As introduced as part of the research methodology, step 2 consists of two sub-steps: A qualitative document analysis, first, of historical examples from the timeframe September 1944 till May 1945, and second, of current doctrine and future-oriented concepts in order to deduct observations for consolidation of gains as part of large-scale combat operations. Due to the scope of this study, the analysis focuses on those multi-domain challenges, which (1) did not exist during the analyzed historical timeframe, and (2) specifically apply to operations to consolidate gains. Based on the gained observations, step 3 then derives deductions, which, in turn, provide the basis for the final conclusions of chapter 5. All observations

and deductions from chapter 4 are documented in the recording matrix in Appendix B.

Overall, US Army doctrine in general and Army Doctrine Reference Publication 3-0 and Field Manual 3-0 in particular already cover a significant amount of the deducted tactics and procedures relevant for consolidation of gains. As the purpose of the analysis is to point out the differences between the findings of this study on the one hand and doctrine on the other hand, chapter 4 will at first briefly outline three of the most important doctrinal consistencies and then detail on the four chosen elements of combat power. The major doctrinal consistencies are: (1) the handling of internally displaced persons, refugees, prisoners of war, casualties, and friendly and enemy equipment, (2) the importance of establishing civil control and conducting security cooperation, and (3) the necessity to consolidate gains and establish area security.

Consistencies

Handling of Internally Displaced Persons, Refugees, Prisoners of War, Casualties, and Equipment

The first doctrinal consistency is inherently related to the second assumption from chapter 1 of this study: The requirement to collect, screen, control, and process massive numbers of internally displaced persons and refugees, allied and enemy prisoners of war, lost friendly and captured enemy equipment, and finally, casualties, possibly including radioactively, biologically, or chemically contaminated wounded or killed soldiers and civilians. In contrast to military operations of the previous 15 years, those tasks are all a logical consequence of the increased lethality and destructiveness of large-scale combat operations and are very likely to occur in the consolidation area; particularly, if the consolidation area also encompasses the tactical support area. Manifold historic examples underline the simultaneity of large-scale combat operations and the before mentioned tasks. One example is 75th Infantry Division's report from 15 January 1945 to 24 January 1945 about the participation in XVIII Airborne Corps' attack to seize key terrain in the Belgium-German border region—the area of St. Vith with its road network:

> The Division's role in the battle—to cross the Salm River to capture VIELSALM—was a classic example of the double envelopment. The division's achievements were measured in ground held and ground gained rather than in striking enemy losses. Nevertheless, 1142 prisoners of war had passed through the division's cage by 24 January, and six tanks and much other

materiel were destroyed. Our own losses were heavy. During the period 24 December to 24 January, the Division suffered 407 killed, 1707 wounded, and 334 missing. The intense cold proved as serious an antagonist as the enemy. Non-battle casualties, largely trench foot, frostbite, and cold injury, accounted for 2623 casualties."[1]

Importance of Establishing Civil Control and Conducting Security Cooperation

The second doctrinal consistency suggested by the analysis is the need to establish civil control and conduct security cooperation. Civil control fosters the rule of law. To establish both, civil control and the rule of law, Army units provide training and support to law enforcement and judicial personnel. This directly leads to security cooperation. Security cooperation comprises multiple activities, programs, and missions, such as security assistance, security force assistance, foreign internal defense, and security sector reform.[2] Historic examples for civil control and security cooperation are also numerous, as First Army's example shows:

> Before the end of March, an average small town was getting only about four or five days of actual military government in a month. To help the detachments keep order, among the troops and displaced persons as much as among the Germans, the armies converted field artillery battalions to security guard duty and began authorizing them to appoint Buergermeisters and post the proclamations and ordinances.
>
> First, Army civil affairs began an experiment: training captured German policemen for work under the occupation. As prisoners of war they could not be used, but since they had been captured in police, not Wehrmacht, uniforms, First Army decided that they were not actually prisoners of war.[3]

Two lessons, which are not new to the Army particularly apply to the transition from large-scale combat operations to consolidation of gains to stability operations. The first lesson is that the combination of the size of the assigned areas of operations and the limited amount of available resources regularly requires non-combat forces to perform security tasks. The second lesson is that security cooperation and its sub-components, such as security force assistance, can effectively support all joint phases and Army strategic roles and not just the post-combat phases. The increasing importance of the so-called by-with-through operational approach, as

recently promoted by General Joseph L. Votel, Commander US Central Command, illustrates that.[4]

Necessity to Consolidate Gains and Establish Area Security

The final doctrinal consistency is obvious, but too important not to point out. Field Manual 3-0 states that consolidation of gains occurs in portions of an area of operations, where large-scale combat operations are no longer occurring. Nevertheless, enemy forces will very likely continue to fight and exploit any kind of friendly weaknesses across all domains. Thus, the constant awareness of the necessity to consolidate gains, to plan accordingly, and to allocate sufficient resources has to become a constant staff consideration, feeding into what Army Doctrine Reference Publication 6-0, *Mission Command* calls the primary staff tasks.[5]

Against this backdrop, failure to consider and successfully establish security as the first step toward consolidation of gains has fatal consequences. Numerous examples clearly show the prerequisite of consolidating a seized position to secure the area of operations—in this case from World War I:

> In parts of the attack sector, American inexperience proved to be costly. Some units failed to account for all German machine-gun positions before passing them by. This failure to "mop up" caused one unit, the 107th Regiment of the 27th Division, to sustain the highest casualty rates of any American regiment in the war.[6]

Field Manual 3-0 suggests the tactics of search and attack as well as cordon and search to establish area security. World War I and World War II participants and scholars regularly call the associated tactical task "mop up" or "roll up." Although not a doctrinal term, mopping up describes the defeat or destruction of enemy units or elements that have been passed by. For instance, such bypasses occurred in the European theater of operations when front line troops attacked in Blitzkrieg style aiming for operational-level encirclements (e.g. during the encirclement of the Ruhr). Also, in the Pacific theater of operations when attacking naval and amphibious forces completely bypassed entire islands (e.g. during the envelopment of the stronghold of Rabaul). Normally, bypassed enemy units are automatically isolated from any kind of tactical and logistical support, rendering the enemy less combat effective and low on morale. Mopping up bypassed enemy units is significantly easier than conducting the main attack.

Another short historical example—the 82d Airborne Division's actions on 3 and 4 February 1945—more precisely captures the intent of area security as the first step to consolidation of gains:

> [3 February 1945] The division strengthened and consolidated defensive positions; eliminated scattered groups of enemy remaining in rear areas; repulsed strong counterattacks and inflicted heavy casualties on the enemy. [4 February 1945] The division maintained defensive positions and patrolled aggressively to the East. The 99th Infantry Division commenced relief of front line units of the division.[7]

Only one day after the 82d Airborne Division successfully breached the German Siegfried Line against "insane opposition," the division not only consolidated the newly captured position as part of the actions on the objective, but continued clearing bypassed enemy remnant elements by patrolling into enemy territory. This created the tactical conditions for relief-in-place by follow-on units and further offensive operations. Such successful examples create vivid and informative lessons which sharpen and define the Army's understanding of how to consolidate gains on the future battlefield.

Differences

Based on those major doctrinal consistencies, the analysis narrows to the four chosen elements of combat power—movement and maneuver, mission command, information, and (non-lethal) fires. These elements are the most significant for further doctrinal adjustment and refinement.

Movement and Maneuver

The movement and maneuver warfighting function encompasses "all related tasks and systems that move and employ forces to achieve a position of relative advantage over the enemy and other threats."[8] Tactical movement disperses and displaces forces in the operational area; tactical maneuver moves forces in combination with fires. The close coordination of movement with fires is called combined-arms. Consequently, planning and conducting movement and maneuver are inherently related to the tactical task: those operations which consolidate gains within the respective area of operation—the consolidation area. As introduced in chapter 3, Field Manual 3-0 defines a wide variety of consolidation of gains activities which spans almost the full conflict continuum from high-intensity combat-to-support-to-governance, including a particular sequence of

those activities. In contrast to that sequence, numerous historic examples show three things:

First, an example of the 4th Armored Division shows how failure to consolidate gains and aggressively pass defeated enemy units will slow down the momentum of the attack. If designated "mop-up" forces are available, then the main body can maintain tempo and offensive momentum; if such forces are not available, then the main body must first halt the offensive to "mop up." Only a successful "mop up" can create the intended window of advantage for further operations:

> With the added weight of the 12th Armored Division (Maj. Gen. Roderick R. Allen), General Walker's XX Corps made the more spectacular gains. Two of the infantry divisions of the XX Corps, their regiments motorized on organic transport supplemented by trucks from supporting units, mopped up behind the armor, while the 26th Division completed its onerous task of rolling up West Wall fortifications, then turned eastward in a drive that converged with a north-eastward thrust from Saarlautern by the 65th Division. In the XII Corps, the 4th Armored Division on 18 and 19 March failed to regain its earlier momentum, partly because the division had to divert forces to clear Bad Kreuznach and partly because the Germans with their backs not far from the Rhine stiffened. In the two days, the 4th Armored advanced just over ten miles beyond the Nahe. It remained for the newly committed 11th Armored Division on the XII Corps right wing to register the more spectacular gains.[9]

Second, as the example of the 82d Airborne Division shows how the type and sequence of consolidation of gains activities varies with respect to mission variables, situation, and area. Regularly, the 82d Airborne Division simultaneously conducts several consolidations of gains activities at once, ranging from offensive operations to stability tasks:

> Duties of military government carried out by the 82d Airborne Division in the Cologne area include the following: search and seizure, check every individual in the division area, collect Wehrmacht weapons, ammunition and articles of war. Apprehension of Wehrmacht deserters and other army personnel. Apprehension of Nazi officials and war criminals. Enforcement of laws and ordinances and general supervision of the German administration. Following the division's move to the ELBE River area

the situation was more tactical than military government during the last days of April.[10]

Finally, the World War I and World War II term of "mopping up" enemy pockets of resistance does not translate purposefully into consolidation of gains. Instead, "mopping up" resembles the first consolidation of gains step as intended by Field Manual 3-0 and defined in chapter 3.

Same for consolidation of gains activities, the consolidation area is still a rather vague construct. In general, the area of operations is "an operational area defined by the joint force commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces."[11] The consolidation area, in particular, is "the portion of the commander's area of operations that is designated to facilitate the security and stability tasks necessary for freedom of action in the close area and to support the continuous consolidation of gains."[12] The purpose of the consolidation area is to preserve the tempo of main battle operations, permitting higher headquarters to focus on close and deep operations. In other words, consolidating gains behind the close area allows the main battle effort to sustain tempo and momentum within that area.

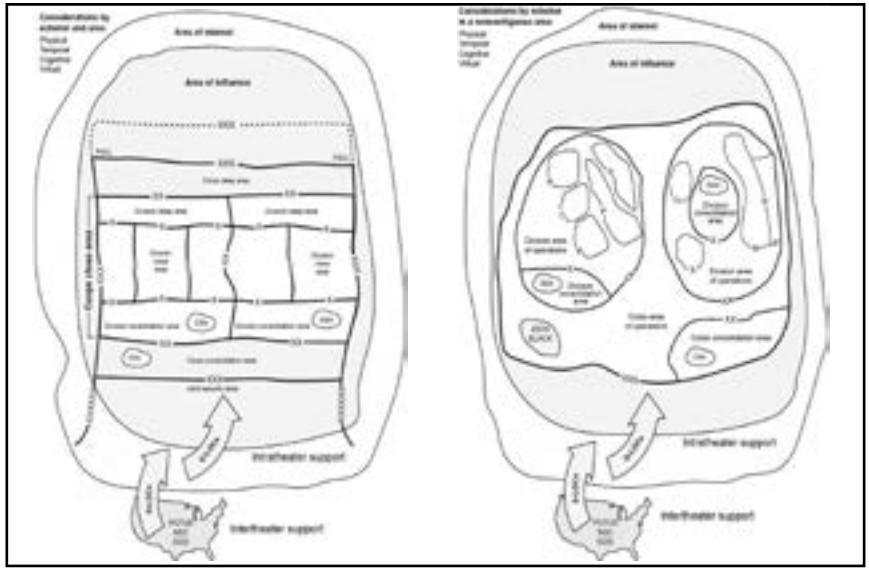

Figure 4.2. Contiguous vs. noncontiguous corps area of operations.

Source: US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 1-32 – 1-33.

Generally, Field Manual 3-0 differentiates between contiguous and noncontiguous areas of operations, particularly between consolidation areas both during and after large-scale combat operations. As Figure 4.2. illustrates, contiguous areas of operations share a boundary; noncontiguous areas of operations do not. Commanders choose how to structure the area of operation depending on the type of decisive action, the mission, the enemy, and the terrain. Normally, offensive operations are conducted contiguously while defensive and stability operations can be conducted either contiguously or noncontiguously. In general, noncontiguous operations are more difficult to command and control. Thus, the differentiation between contiguous and noncontiguous operations has a significant influence on how to plan and conduct consolidation of gains activities.

Field Manual 3-0's second differentiation separates consolidation areas during large-scale combat operations from consolidation areas after large-scale combat operations, see Figure 4.3. During contiguous large-scale combat operations, the consolidation area extends from a higher echelon headquarters boundary to the forces boundary in the close area. In the example, the consolidation area also surrounds the support area. Upon completion of large-scale combat operations, the corps reorganizes the operational areas to enable a rapid consolidation of gains. This transitional period explicitly allows for simultaneous offensive operations and consolidation of gains activities.

Furthermore, Field Manual 3-0 states that during large-scale combat operations the size of the consolidation areas will generally increase over time.[13] Hence, the consolidation area is not static; instead, its physical size changes during an ongoing operation. Arguably, the consolidation area is not necessarily increasing; but instead, it can remain unchanged or decrease over time. Chapter 5 further discusses this fluidity of the consolidation area.

The historic analysis shows that during the World War II Rhineland Campaign, the divisional and regimental boundaries shifted frequently, at times almost every day. This led to constantly changing command relationships for the stationary civil affairs detachments, which had the task to establish and provide military government. One of those detachments fell under two corps and three divisions within five days.[14] This example reveals an issue of special relevance for the consolidation of gains: constantly moving and shifting tactical boundaries almost certainly do not line up with the host nation administrative boundaries of federal states, counties, communities, or cities. Such conflicts of tactical and administrative

boundaries can negatively influence—or at least further complicate—stability tasks while consolidating gains.

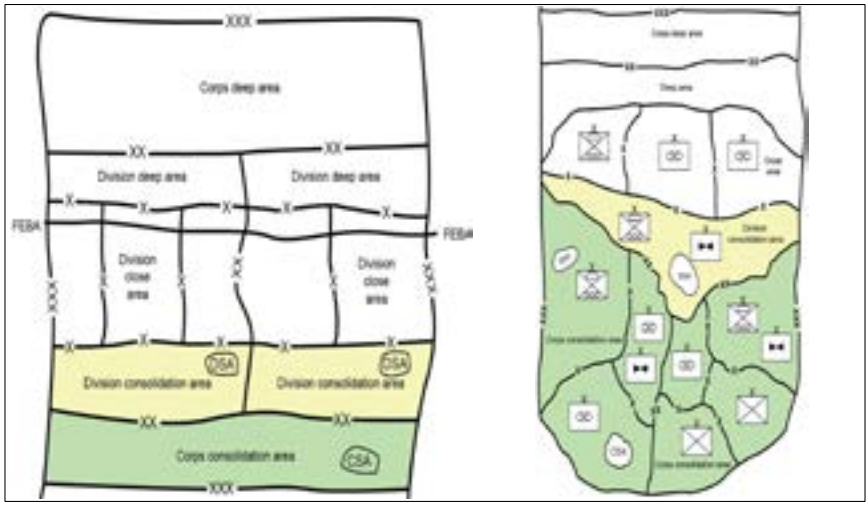

Figure 4.3. Consolidation area during and after large-scale combat operations

Source: US Department of the Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, October 2017), 8-6, 8-15.

Mission Command

Army doctrine views mission command as a two-sided coin, differentiating between the mission command philosophy and the mission command warfighting function. Both are intrinsically tied to each other, therefore building upon each other. The mission command philosophy side of the coin describes the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations. The mission command warfighting function side of the coin guarantees execution of philosophy through related tasks and mission command systems which support the commander's exercise of authority and direction. This combination allows the commander to find balance between art of command on the one side and science of control on the other side.[15] Thus, mission command and, in consequence, the op-

erations process rest on the central role of the commander—leading the process is one of his primary tasks.

Against the backdrop of this current perception of mission command, this non-exhaustive list of doctrinal considerations depicts the complexity, ambiguity, and uncertainty from which a commander has to cope—while assigned the consolidation of gains.

- Allocate sufficient resources and combat power to the consolidation force. This might require repositioning forces and, potentially, changing the task-organization. Commanders will assign consolidation areas to units in a follow-and-support role to avoid pulling combat power from the close and deep areas.

- Understand, visualize, and describe the complex multi-domain environment while accounting for the enemy situation (e.g. position, disposition, and strength of enemy remnants and hybrid threats), the friendly situation (e.g. role in the higher headquarters operational concept), and the civilian situation (e.g. communicating with and influencing local and regional audiences).

- Maintain situational awareness of friendly forces operating in or moving through the consolidation area and deconflict with adjacent units, mainly within the close and support area. This deconfliction gets even more complex, if the support area is located within the consolidation area. Such a colocation necessitates a clear definition of roles and responsibilities.

- Clear fires into, within, across, and out of the consolidation area.

- Carefully manage the application of force and identify the appropriate timing to transition the decisive action from offensive operations to defensive operations or stability tasks.

- Account for possible shifting boundaries due to the available capabilities of the consolidation force or the movement of the friendly main attack.

- Transition the consolidation area to follow-on forces.

This list of commander's consolidation considerations suggests a strong command reliance on the three core principles of mission command: shared understanding amongst his or her subordinates, those sub-

ordinate's informed initiative, and the assumption of necessary risk. Commander's intent is the key to those three principles.

An excellent example for those principles of mission command is the 12th Army Group's encirclement of the Ruhr from 24 March 1945 to 1 April 1945. The Ruhr industrial complex, due to its siginifcant contribution to the German war effort, had been selected as an objective prior to the allied invasion into Europe. Although the military seizure of the Ruhr area should have been controlled either by the 12th Army Group itself or the attacking Ninth and First Armies, the link up between VII Corps and Ninth Army to finally encircle the Ruhr Pocket was ultimately realized on the initiative of Major General J. Lawton "Lightning Joe" Collins, commander VII Corps.[16] D-day and H-hour were at 0400 hours, 25 March 1945. The corps accomplished its initial objectives by 26 March, seized the corps objective by 27 March, and exploited to Marburg on 28 March. While German forces attempted to both break out from and reinforce the closing pocket, Collins—following his higher headquarters' intent—led the completion of the encirclement from the front. On 1 April 1945, VII Corps closed the Ruhr Pocket with XIX Corps from Ninth Army to the north after covering 300 kilometers in seven days, with over 300,000 German soldiers captured in the pocket. This operation not only exemplifies both applied mission command and successful consolidation of gains; the field order given by Major General Collins—Field Order 18—resembles what the US Army describes as mission orders today.[17]

Information

Joint Publication 3-13, *Information Operations* defines the information environment as the "aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information." The information environment includes the cyberspace domain and consists of three interrelated dimensions, which are the physical, informational, and cognitive dimension. Operations within that information environment, information operations, have the purpose to create a desired effect on an adversary or potential adversary to achieve an objective.[18]

Against this joint backdrop, Army Doctrine Reference Publication 3-0 defines the overall purpose of information for the US Army as to enable commanders at all levels to make informed decisions about the application of combat power and achieve definitive results. As part of information operations, tactical-level units develop and use themes and messages to influence local audiences. This also applies to consolidation of gains. In addition, tactical-level units conduct cyberspace and electronic warfare

operations to seize, retain, and exploit advantages in the cyberspace and the electromagnetic spectrum.[19]

In his recent bestseller *War in 140 Characters,* the war journalist David Patrikarakos defines the "heart of twenty-first century warfare" in a two-fold way: first, the creation of the *homo digitalis,* the empowered individual, who cannot only affect the discourse of war, but also directly affect the physical battlefield; and second, the related clash of narratives, which characterizes postmodern conflicts.[20] To explore how social media have extended the arena of conflict or—in military terms—the areas of operation into cyberspace, Patrikarakos uses the conflicts in Ukraine, Gaza, Iraq, and Syria as case studies. Brian L. Steed, US Army Foreign Affairs officer and former history professor at the US Army Command and General Staff College, uses the term *narrative space* for the same idea and analyzes particularly how Islamic State of Iraq and the Levant *maneuvers* in that space.[21] Due to the significantly increasing relevance of the information environment, Secretary of Defense James N. Mattis signed a memorandum in September 2017 that has formally elevated information to a joint warfighting function.[22] Notwithstanding, the US Army has yet to decide to follow this joint example and declare information a warfighting function.

Within this context, Field Manual 3-0 defines threats to the consolidation of gains by saying that "threat information warfare activities will focus on both altering the value of continued operations to the United States and altering the perceived value to other actors of continuing to act in a manner coincident to the interests of the United States."[23] In other words, threat information warfare has the power to ultimately negate the purpose of consolidation of gains. A tactical defeat on the battlefield has to be mirrored in the information environment, otherwise indoctrinated opponents will not acknowledge their defeat. The information environment and its related narrative space have the potential to decide, if a war is ultimately perceived as won or lost. In the case of Islamic State of Iraq and the Levant, as Graebner acknowledges, "the wholesale defeat of Islamic State [of Iraq and the Levant] is far from over."[24]

Field Manual 3-0 recognizes that information plays a significant, if not the dominant role, in future conflicts.[25] In general, consolidation of gains activities encompass establishing security from external threats, whereas this requires sufficient combat power to prevent physical disruption from threats across the various domains and the information environment. A little more specifically, the simultaneous exploitation of existing advantage

and the rapid pursuit of remaining means of resistance also includes rapid and comprehensive use of information operations to shape public opinion, discredit enemy narratives, and promote friendly narratives. The purpose of this exploitation and pursuit is to deny an enemy the ability to prolong conflict after enemy initial forces in the field are defeated.[26]

Nonetheless, Field Manual 3-0's chapter 8 does not entirely account for the above introduced operational framework considerations and, therefore, forgets to fully translate the vital informational threat into the consolidation area framework and consolidation of gains activities. Both, the consolidation area framework as well as the consolidation of gains activities, indirectly recognize the physical and temporal considerations while defining the tactics and procedures how to consolidate gains. The consolidation area itself is an obvious example for physical considerations; the shift from area security to stability tasks is an obvious example for temporal considerations. Virtual and cognitive considerations are missing. Applying those considerations to consolidation of gains significantly widens the challenges for the consolidation force. Consequently, the consolidation force does not only have to consolidate gains physically and temporally, for instance through defeating enemy remnants, but also virtually and cognitively in the information environment.

That consolidation of gains in the information environment has always been challenging, can also be seen by World War II experience. Back then, allied forces had to cope with the balancing act between the continuous provision of information to the population on the one hand and the denial of Nazi propaganda on the other hand. This led to the physical occupation and virtual control of newspapers, radio stations, and television services.

(Non-Lethal) Fires

The interdependency of information and fires also illustrates the inherent relationship between non-lethal and lethal effects. This causes several critical challenges for Army forces on the multi-domain battlefield: "In the future, large-scale combat operations against a peer threat will be much more demanding in terms of operational tempo and lethality."[27] The increased operational tempo and, in particular, the increased lethality is going hand in hand with a three-fold assumption about the outcomes:

> We can integrate an assumption…which specifies that most post-war occupation operations will involve a nation-state whose government and infrastructure will require a significant amount of reconstruction. We can also assume that this will be a need that manifests itself immediately after the United States

> and its allies gain control of such a state's territory. Finally, we can assume that our failure to immediately react to and successfully deal with this need will threaten our long-term operational success in that state, and will also result in America's expenditure of a great deal more money and time to achieve the strategic objectives that dictated its presence in the that state in the first instance.[28]

In short, the operating environment—characterized by large scale combat operations and peer and near-peer threats—implies that host nation civil administrations will either not be present or not capable of providing all necessary services. The resulting simplified rule of three goes as follows:

- Large-scale combat operations significantly impede host nation governments and cause tremendous damage.

- This requires immediate relief by US Armed Forces and their allies.

- The failure to do so will negate the consolidation of operational success.

Field Manual 3-0—under the consolidation of gains activity "support to governance"—partly holds an answer to this challenge: "If a host-nation's government or community organizations cannot provide governance, some degree of military support may be necessary. In extreme cases, where civil government or community organizations are dysfunctional or absent, international law requires military forces to provide basic civil administration."[29] That way, Field Manual 3-0 incorporates Field Manual 3-57's *Civil Affairs Operations* definition of support to civil administration, which explicitly mentions assisting an established government or establishing military authority as the two ways to stabilize or to continue the operations of the governing body.[30] Given the outlined realities of large-scale combat operations, the need to establish military authority over an occupied territory is not just a possible contingency but an integral part of the nature of consolidation of gains. This deduction is even truer with regard to possible conflicts with one of the 4+1 threats. Doubtlessly, a conflict with North Korea, for example, would require administration by the US and its allies upon defeat or isolation of the North Korean regime. Due to a series of reasons, such as geography, size, culture, or language, the same endeavor would be even more difficult in case of armed conflict with one of the other three adversaries.

Summary

Chapter 4 has given an overview over the scope of the conducted analysis. To condense the findings, this chapter has briefly summarized three doctrinal consistencies and, then, detailed on four differences between the conducted analysis and current doctrine. The consistencies were: (1) the necessity to consolidate gains and establish area security; (2) the handling of internally displaced persons, refuges, prisoners of war, casualties, and friendly and enemy equipment; and (3) the importance of establishing civil control and conducting security cooperation. Numerous historic examples across all analyzed sources back these consistencies and stress their pivotal role for successful consolidation of gains.

In accordance with the research methodology, the analyzed differences stem from historic, current, and future considerations. The four suggested areas of the foundation for chapter 5, are:

- In the movement and maneuver warfighting function to account for the fluidity of the consolidation of gains activities and the consolidation area.

- In the mission command warfighting function to enable more intent-guided procedural instead of positive control.

- Regarding the information element of combat power the need to virtually and cognitively consolidate gains.

- In the (non-lethal) fires warfighting function to prepare for the establishment of temporary military authority.

The evaluation of these four differing areas enable a more comprehensive understanding of what consolidation of gains actually is and helps to inform relevant doctrinal conclusions.

Notes

1. 75th Infantry Division, *The 75th Infantry Division in Combat, 23 December 1944-15 April 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS, 4 June 1945), 3-4.

2. US Department of the Army, Field Manual 3-0, *Operations,* 8-12.

3. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 146 and 194.

4. Gen. Joseph L. Votel and COL Eero R. Keravuori, "The By-With-Through Operational Approach," *Joint Force Quarterly,* no. 89 (2nd Quarter 2018): 40-47.

5. The primary staff tasks are (1) conduct the operations process, (2) conduct knowledge management and information management, (3) synchronize information-related capabilities, and (4) conduct cyber electromagnetic activities. For details, see US Department of the Army, Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command* (Washington, DC: Government Printing Office, May 2012), 3-5 - 3-6.

6. Michael S. Neiberg, *Fighting the Great War: A Global History* (Cambridge, MA: Harvard University Press, 2005), 349-350.

7. 82d Airborne Division, *After Action Report 82d Airborne, December 1944-February 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS), 1.

8. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 5-3.

9. MacDonald, *The Last Offensive,* 258-259.

10. 82d Airborne Division, *After Action Report 82d Airborne Division, April 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS), 12.

11. US Department of the Army, Army Doctrine Reference Publication (ADRP) 1-02, *Terms and Military Symbols* (Washington, DC: Government Printing Office, November 2016), 1-5.

12. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* Glossary-2.

13. US Department of the Army, Field Manual 3-0, *Operations,* 8-2.

14. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 146 and 206-207.

15. For more details on mission command and the related distinction between the mission command philosophy and the mission command warfighting function, see US Department of the Army, Army Doctrine Reference Publication 6-0, *Mission Command,* chapters 1 through 3.

16. William M. Connor, *Analysis of Deep Attack Operations: The Encirclement of the Ruhr, 24 March-1 April 1945* (Fort Leavenworth: Combat Studies Institute, February 1987), 36-39.

17. US Department of the Army, Field Manual (FM) 101-5, *Staff Organization and Operations* (Washington, DC: Government Printing Office, May 1997), H74-H79.

18. The three interrelated dimensions are: (1) The physical dimension is composed of command and control systems, key decision makers, and supporting infrastructure that enable individuals and organizations to create effects; (2) the informational dimension encompasses where and how information is collected, processed, stored, disseminated, and protected; and (3) the cognitive dimension encompasses the minds of those who transmit, receive, and respond to or act on information. For details, see Joint Chiefs of Staff, Joint Publication 3-13, *Information Operations* (Washington, DC: Government Printing Office, November 2012), I-1 – I-3, II-1.

19. US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 5-1 – 5-2.

20. David Patrikarakos, *War in 140 Characters: How Social Media is Reshaping Conflict in the Twenty-First Century* (New York: Basic Books, 2017), 133 and 244.

21. For more information on how Islamic State of Iraq and the Levant "maneuvers" in the cyberspace, see Brian L. Steed, I*SIS: An Introduction and Guide to the Islamic State* (Santa Barbara, CA: ABC-CLIO, 2016), 63-66.

22. US Department of Defense, Secretary of Defense, *Memorandum: Information as a Joint Function* (Washington, DC: Department of Defense, September 2017).

23. US Department of the Army, Field Manual 3-0, *Operations,* 8-4.

24. Lt. Col. Jonathan P. Graebener, "A Tactical Approach to Consolidating Gains in a Post-Caliphate Iraq," *Military Review* (April 2018): 2, accessed 20 April 2018, http://www.armyupress.army.mil/Journals/Military-Review/Online-Exclusive/2018-OLE/Mar/Tactical-Approach.

25. US Department of the Army, Field Manual 3-0, *Operations,* 2-27.

26. Army, *Operations,* 8-2 – 8-3.

27. Army, *Operations,* 1-2 – 1-3.

28. Whitaker, "Military Government in Future Operations," 11.

29. US Department of the Army, Field Manual 3-0, *Operations,* 8-12.

30. US Department of the Army, Field Manual 3-57, *Civil Affairs Operations,* 3-17 – 13-18.

Chapter 5
Conclusions and Recommendations

After two years of intense and, at times, very costly fighting with the German Army, the spectacle that began to unfold itself was an unbelievable one. German command and control became completely paralyzed and entire units were being captured intact.[1]

— 82d Airborne, May 1945

America has no preordained right to victory on the battlefield.[2]

— Secretary of Defense James N. Mattis, 19 January 2018

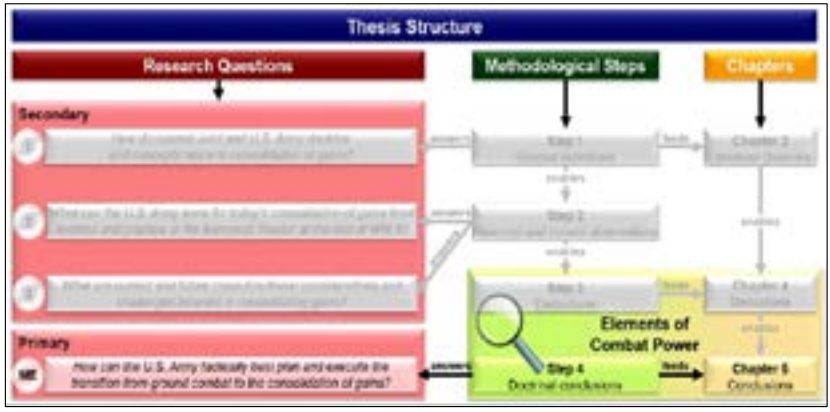

Figure 5.1. Methodological anchorage of chapter 5.

Source: Created by author.

Doctrinal Conclusions

Based on the gained step-two observations, step three of the research methodology has derived deductions along four elements of US Army combat power—movement and maneuver, mission command, information, and (non-lethal) fires. The following step-four conclusions build upon the deductions from chapter 4 and elaborate on those doctrinal aspects of consolidation of gains, which require further doctrinal refinement.

Movement and Maneuver—Fluidity of Consolidation Activities and Area

Chapter 4 raised the question, whether the consolidation area can vary in size, scope, and stages across the different domains. If the close area expands and has to be adjusted, the same applies both to the tactical support area as well as to the consolidation area. Quick, deep maneuver and penetrations by tactical formations in the close area to gain operational depth require constant evaluation of the operational framework. In this case, the consolidation area develops towards a "fluid" construct. This fluidity is of particular importance on the multi-domain battlefield as well as in case of noncontiguous operations; therefore, a requirement to constantly deconflict and coordinate between the responsible commanders in the close, the tactical support, and the consolidation area. Additionally, this fluidity not only applies to physical operational framework considerations, but also to other three operational framework considerations: temporal, virtual, and cognitive.

Comprehensive cross-functional multi-domain consolidation area

As of now, Field Manual 3-0 focuses its description of the consolidation area mainly on physical considerations in the land-domain only. Instead, to effectively consolidate gains, the area has to expand to account for multiple domains (land, maritime, air, space, and information environment) as well as multiple operational framework considerations (physical, temporal, virtual, and cognitive). In doing so, the land-focused consolidation area becomes a comprehensive cross-functional multi-domain consolidation area, Figure 5.2. At the same time, such a notional expansion of the consolidation area appropriately meets the purpose of consolidation of gains by making any temporary operational success enduring and setting the conditions for a stable environment. This allows for the transition of control to legitimate authorities. Tactical operational success cannot be only consolidated in one domain and at one level of war; instead, it requires a stringent multi-domain and cross-level approach. This leads to consolidation areas at all levels of war—tactical, operational, and strategic. Consolidation of gains at strategic and operational level needs to enable tactical-level operations to consolidate gains. Thus, multi-domain battle in a tactical consolidation area is a tactical-level operation with strong operational and strategic-level implications.

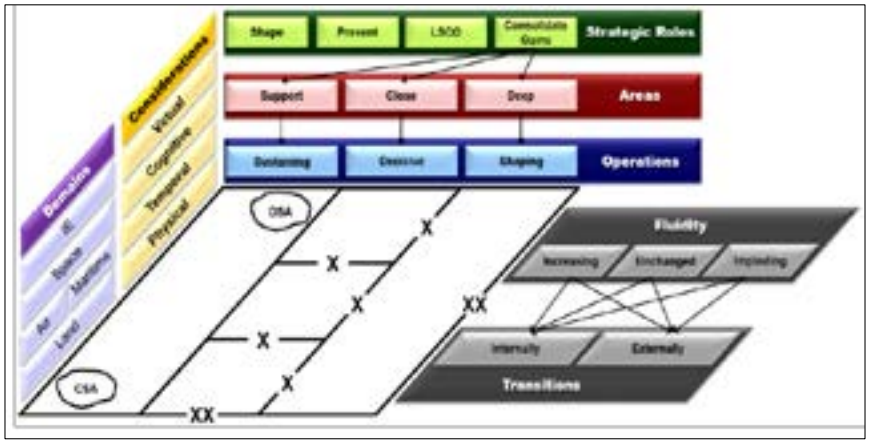

Figure 5.2. Comprehensive cross-functional multi-domain consolidation area.

Source: Created by author.

This comprehensive multi-domain approach also needs to account for the possible fluidity of the consolidation area. In general, size and location of the consolidation and the support area are relative to and vary depending on the mission variables. Field Manual 3-0 states that the consolidation area will most likely increase over time. In lieu thereof, two further options require explicit consideration. In the first option, particularly in contiguous operations, the consolidation area might remain unchanged until completion of large-scale combat operations; in the second option, particularly in non-contiguous operations, the consolidation area might implode and vanish upon successful completion of operations to consolidate gains. All three scenarios sooner or later require a transfer of authority. This is accomplished either internally or externally. Internally within the division to the maneuver enhancement brigade as the unit with the responsibility for the tactical support area or to follow-on forces who are designated by the corps. Externally to host nation or multinational security forces who are able to maintain security and public order. Rapidly conducting those transitions preserves operational tempo and momentum.[3] As transitions are always operational weak spots, appropriate doctrinal coverage and, subsequently, recognition in operational plans is mandatory.

Coordination from army to corps to divisional level

On a contested and degraded battlefield, army units must be capable of maneuvering into the close fight without the habitual joint support, par-

ticularly in the air domain. Thus, the operating enironment acknowledges that the well-tried and proven principle of establishing air superiority first may not be valid. Army forces cannot assume the provision of joint solutions to tactical ground problems as has been the case for the past 25 years. Instead, army units will have to enforce access to the battlefield, enabling the joint fight. Consequently, Field Manual 3-0's chapter 7 "Large-scale Offensive Operations" deliberately emphasizes the requirement for a continuous balance of high tempo and synchronization to mitigate current capability gaps, such as long-range fires, electronic warfare, cyber operations, mobility, sustainment, and others. The reversed logic of "land first" instead of "air first" has significant consequences for consolidation of gains. A look at the roles that several army headquarters play for consolidation of gains, illustrates that.

The theater army supports consolidation of gains. For instance, through anticipating and requesting the necessary additional army combat forces, the corps' support allocates additional army combat forces and manages division and brigade consolidation of gains, while shaping the next targeted consolidation areas; the divisions manage their brigade combat teams consolidating gains; and, finally, the brigade combat teams execute the required consolidation of gains activities. Implicitly, in the same manner as the close fight, the theater army shapes for its corps, corps shape for their divisions, and divisions shape for their brigade combat teams. Applying this relationship to the consolidation area leads to an operational framework within the operational framework. A corps, for instance, divides its operations area into deep, close, consolidation, and support areas; the subordinate division with the task to consolidate gains does the same. Thus, the consolidation area for a division could encompass a deep area, which the assigned unit cannot always adequately affect, either due to physical distance or due to a lack of capabilities. Thus, if the corps wants to shape and support its divisions by fire, it has to do that not just in the corps deep area, but also in the corps consolidation area. This leads to shaping and fire support operations within a 360-degree radius which requires intense coordination and deconfliction. In this context, it is essential, that headquarters and units across all echelons understand their respective purpose. In addition, those considerations need to account for not just physical, but also cross-domain deep fires. The term cross-domain fires is still conceptual but it exists in the real world. For instance, air to surface fires or naval gunfire support are examples of cross-domain fire. Therefore, it should be transferred into doctrine as soon as possible to allow for the reality of the multi-domain battlefield.[4]

At the divisional level, the support area command post with the Deputy Commanding General—uspport seems best suited to provide task and purpose as well as coordination and deconfliction for both the consolidation and the tactical support area. In addition to task and purpose, the support area command post has to provide task organization, boundaries, and command and support relationships for both areas of operation.[5] The mission command sub-chapter will come back to the issue of coordination and deconfliction.

Appropriate force structure and personnel

The purpose of the consolidation area is threefold. It unburdens the maneuver enhancement brigade from securing a support area too large relative to its capabilities. It neutralizes threats to the support area by stabilizing the balance for supporting forces between their main task and concurrent security challenges. It enables the quick simultaneous maneuver to the objective in the close area. This threefold purpose requires a task-organized force with three broad capabilities:

- Cross-domain reconnaissance/ counter-reconnaissance capabilities to detect, identify, and defeat enemy remnants.

- Tactical combat forces to defeat conventional level III threats as well as unconventional hybrid threats.[6] Units assigned a consolidation area require the capability to conduct decisive action, which includes offensive, defensive, and stability tasks, to defeat enemy remnants or bypassed forces and preserve freedom of action for their higher headquarters.

- Physical and virtual liaison elements and packages to enable integration, synchronization, and convergence of cross-domain effects as well as coordination and interoperability with multinational and host nation security forces and unified action partners.

Planners across all levels have to consider these core capabilities while planning for consolidation of gains and requesting appropriate forces from their respective higher headquarters. As the broad spectrum of necessary capabilities indicates, operations to consolidate gains not only require additional forces—at minimum a task-organized brigade-sized element—they also underline the urgent need for more and better qualified personnel as well as appropriate command and control systems. Those additional forces do not necessarily have to be US military; instead, multinational and host nation forces can “plug into” a US-led headquarters.

Informed initiative and independent operations

A closer look at the operating enironment as characterized in chapter 3 clarifies why independent operations, based on informed initiative, will be even more important in the future than they have been in the past. For successful operations in such an environment, the multi-domain battle concept suggests a three-fold solution: calibrating the force posture, employing resilient formations that can operate semi-independently, and converging capabilities to create windows of advantage. For consolidation of gains and, relatedly, mission command, the concept of semi-independent operations is of particular interest. Semi-independent operations are separated for a period of time from traditional control and support measures and, thus, are supposed to enable friendly forces to exercise initiative in highly contested and degraded environments.[7] Semi-independent operations, which are separated from higher control and support, are—in fact—temporary independent operations. Following this train of thought, the necessity for temporary independent operations applies not just to the close area, but simultaneously, and maybe even more importantly, to the consolidation area. As the corps or division focuses on more urgent tactical problems in the close area, the brigade combat team with the task to consolidate gains needs to be capable of working independently. Field Manual 3-0, at least partly, already accounts for this necessity by emphasizing that:

> Through mission command, commanders integrate and synchronize operations. Commanders understand that they do not operate independently but as part of a larger force united by a common operational purpose. They integrate and synchronize their actions with the rest of the force to achieve the overall objective of the operation.[8]

Successful historical examples of such temporary independent operations in large-scale combat operations are numerous. Major General J. Lawton Collins' encirclement of the Ruhr, as described in chapter 4, is an American example; General Erwin Rommel's breakthrough from Belgium into France via Landrecies to Le Cateau on 17 May 1940 is a German example. Independent operations are an integral part of the history and traditions of the Prussian and German General Staff and the army, which contributed significantly to their tactical and operational level success during the German wars for independence as well as both World Wars.[9] In all cases, the key to success was that military leaders at all levels were educated and trained to develop the situation through action, either in the absence or, if necessary, in deviation from ill-informed orders. Con-

sequently, applying both—Collins' lessons from 1945 and the reality of the multi-domain battlefield, commanders have to realize that they do not operate cognitively and temporally independent from higher headquarters' intent, but that they might very well operate physically and virtually independent from higher headquarters' control and support. Conducting independent operations with current capabilities requires significant planning and shaping activities by higher echelons to set the conditions for their operational success. The degree of independence is related to the degree of preparation. The recognition of and requirement for such independent operations leads to the mission command warfighting function and the question how to command and control operations to consolidate gains on the multi-domain battlefield.

Mission Command—More Procedural Instead of Positive Control

Tying the mission command deductions from chapter 4 together with several changes of operations doctrine, then subsequently, mission command doctrine is indicated. Having said this, doctrine should:

- Consequently prepare military leaders to cope with unprecedented complexity, ambiguity, adversity, and uncertainty.
- Introduce the idea of active intelligent disobedience.
- Emphasize the need for more procedural instead of positive control.
- Clearly cover the changed quality of risk.

Unpreceded complexity, ambiguity, adversity, and uncertainty

War is a human endeavor and, therefore, has always been complex. Clausewitz's famous friction in and fog of war perfectly illustrate that. According to Clausewitz, "everything in war is very simple, but the simplest thing is difficult. The difficulties accumulate and end by producing a kind of friction that is inconceivable unless one has experienced war."[10] Modern militaries try to reduce this complexity as much as possible. The mission command philosophy delegates and decentralizes initiative as far down the chain of command as possible; the mission command warfighting function provides the necessary cognitive processes and virtual means to support that delegation and decentralization of initiative. Peer and near-peer adversaries will physically, cognitively, and virtually attack all of those systems in order to degrade, impair, or manipulate friendly

decision-making. The resulting ambiguity and uncertainty, further multiplied by the necessity to converge capabilities across multiple domains, causes an unprecedented level of complexity and poses new challenges on leadership at all levels.

Commanders apply leadership through mission command, which deeply intertwines leadership with both sides of the mission command coin. Army Doctrine Reference Publication 6-22, *Army Leadership* differentiates between three levels of Army leadership: direct, organizational, and strategic leadership.[11] Figure 5.3. indicates how those levels of leadership interrelate with the three levels of war. The bottom line is that all levels of leadership, in varying intensity and scope, apply to all levels of war. As a consequence, the complexity, ambiguity, adversity, and uncertainty on the modern multi-domain battlefield call for a constantly increasing quantity and quality of cross-level leadership considerations. In the historic perspective, again, Major General J. Lawton Collins' encirclement of the Ruhr is an excellent example of a leader, who had to cope with such unprecedented complexity, ambiguity, adversity, and uncertainty. His decision, in absence of leadership from his higher command, to continue the attack caused multiple dilemmas for the enemy and led to the closing of the Ruhr Pocket on 1 April 1945 after covering 300 kilometers in seven days, with over 300,000 German soldiers captured in the pocket.

Figure 5.3. Levels of leadership and levels of war "bow tie."

Source: Created by author.

To successfully lead and operate in a multi-domain environment with its implications across all levels of war, poses new challenges on military leaders. Leaders at all levels not only have to develop subordinates in general, but they should also cultivate mission command with its principles as a leadership style. Field Manual 3-0 correctly states that "effective commanders develop subordinates with agile and adaptive approaches to problem solving as insurance against the ambiguity, adversity, and uncertainty found on every battlefield."[12] If leaders and subordinates are supposed to be comfortable with seizing the initiative and developing the situation through action, they must be used to doing that not only "down range," but also in garrison and in training, as well. The latitude to experiment and make mistakes in peacetime contributes tactically to training and socially building units for wartime. This would develop the US Army a little bit more from a principle-based "Jominian army" towards a more holistic "Clausewitzian army," ready to cope with the implications of the multi-domain battlefield.

Active intelligent disobedience

A particular ethical consideration, which goes hand in hand with independent operations as well as with unpreceded complexity, ambiguity, adversity, and uncertainty deals with intelligent disobedience. According to Ted Thomas and Ira Chaleff, intelligent disobedience requires "moral courage both to disobey unethical, illegal, and immoral orders and to disobey orders that would inadvertently bring harm to the organization and its mission."[13] Intelligent disobedience does have a passive side of not executing malicious orders as Thomas and Chaleff suggest's, but nevertheless, intelligent disobedience can become powerful if an active side is added to the idea. Collins at the Ruhr and Rommel at Sivry did not just wait for further instructions, they seized the initiative, because they could assess their position of relative advantage much more accurately than their higher headquarters. General Mark Milley, the 39th Chief of Staff of the Army, certainly aims at this active side of intelligent disobedience when he tries to raise the Army's awareness for "disciplined disobedience to achieve the higher purpose."[14] Prior to actively disobeying given orders, commanders also need to consider that higher headquarters—based on modern mission command systems—could actually possess a more accurate common operating picture than their subordinate units.

More procedural control to enable convergence of effects

Field Manual 3-0 points out that large-scale combat operations "entail significant operational risk, synchronization, capabilities convergence,

and high operational tempo."[15] Successful operations in such a complex, ambiguous, adverse, and uncertain multi-domain environment not only require independent operations and, possibly, active intelligent disobedience, they also call for the convergence of capabilities to create windows of advantage, as the multi-domain battleconcept phrases it. The idea of convergence is not new. In 1862, Baron Henri de Jomini with his theory of zones and lines of operations first manifested, for instance, interior, exterior, and concentric lines of operation, whereas the latter "depart from widely-separated points and meet at the same point, either in advance of or behind the base."[16] Applying this idea of convergence—or concentric lines as Jomini calls it—Field Manual 3-0 states that;

> The interrelationship of the air, land, maritime, space, and the information environment (including cyberspace) requires a cross-domain understanding of an operating environment. Commanders and staffs must understand friendly and enemy capabilities that reside in each domain. From this understanding, commanders can better identify windows of opportunity during operations to converge capabilities for best effect.[17]

Consequently, convergence depicts the next logical step on the evolutionary ladder of combined-arms warfare. From a conceptual standpoint, the first step is the integration of forces, the second step the synchronization of actions of those forces, and the third step the convergence of effects of those actions.[18] Figuratively, effects are like sunbeams, which are focused through a lens to ignite a specific spot. In a cross-domain approach, this also includes joint and non-organic unified action partner capabilities.

The complexity of the challenge to converge effects from both military and non-military effectors across multiple domains necessarily leads to the question how to command and control such operations. Perkins and Holmes congruently conclude for both the US Army and the US Air Force that "we can no longer develop domain-specific solutions that require time and effort to synchronize and federate." Instead, they suggest "to present the enemy with multiple dilemmas, we must converge and integrate our solutions and approaches before the battle starts."[19] While operations on a contested and degraded battlefield need to allow for as much operational independence as possible, convergence of effects across multiple domains calls for more procedural control instead of positive control.[20] To enable this type of intensified procedural control, two things become absolutely crucial—on the staff's side, an increase in better qualified subject matter experts across all domains and on the commander's side, an even more in-

tense focus on the commander's intent as the heart and soul of the mission command philosophy. Under the given realities of a contested multi-domain battlefield, a commander's intent, as early as possible in the decision-making process, with a purpose, as clearly formulated as possible, might have to be enough to enable informed initiative, independent operations, and the convergence of effects. For a holistic view, the commander's intent needs to account not just for physical and temporal, but also for virtual and cognitive aspects. The rule of thumb should be: The more complex the operating environment, the less positive and more procedural control is necessary. This includes the development and establishment of procedural control measures to enable convergence of effects across multiple domains within, into, across, and out of the consolidation area.

Arguably, referring once more to the sunbeam illustration, generally, the lens (= procedural control measures) should be as permissive as possible and restrictive only as necessary. Otherwise, not enough sunbeams (= effects) will concentrate (= converge) at the planned focal point (= decisive place and time) and all invested time and energy (= resources) get lost. The intended position of relative advantage would not materialize; in lieu thereof, unanticipated second and third order effects could manifest. Due to its importance as third evolutionary step of combined-arms warfare, convergence requires a doctrinal definition. While Army Doctrine Reference Publication 1-02, *Terms and Military Symbols* defines both integration and synchronization, a definition for convergence is missing. Following the semi-hierarchical relationship of integration, synchronization, and convergence, a possible definition could be: the concentration of integrated and synchronized joint and unified action partner capabilities and effects thereof in all available domains at a decisive point to gain a relative advantage that can be rapidly exploited.

The question of command and control is closely linked to the operations process and commander's role. This close link to the operations process further funnels into:

- The Army design methodology as a methodology for applying critical and creative thinking to understand, visualize, and describe problems and approaches to solving them.

- The intelligence preparation of the battlefield as a systematic, continuous process of analyzing the threat and other aspects of an operating environment within a specific geographic area.

- The military decision-making process as the central US Army planning methodology.

- The rapid decision making and synchronization process as decision making and synchronization technique during execution of an operation.

The significant difference between the military decision-making process and the rapid decision making and synchronization process is that, "While the military decision-making process seeks the optimal solution, the rapid decision-making and synchronization process seeks a timely and effective solution within the commander's intent, mission, and concept of operations."[21]

All four processes possess a clear one-dimensional land-focus. The intelligence preparation of the battlefield, for instance, is integrated into the Army design methodology and feeds into and aids each step of the military decision-making and the rapid decision making and synchronization process. Throughout those processes, commanders and staffs use so-called operational and mission variables to help build their situational understanding.[22] The eight operational variables are fundamental to developing a comprehensive understanding of an operating environment; the six mission variables help to refine the understanding of the situation and to visualize, describe, and direct operations. A closer look particularly at the tactical-level oriented mission variables, which also form the analytical lens of the intelligence preparation of the battlefield , reveals a clear shortfall in multi-domain considerations.[23] To fight and consolidate gains on a multi-domain battlefield requires comprehensive multi-domain analysis, planning, and execution. Thus, a critical review and adjustment of the above mentioned four processes as well as the related operational and mission variables along this thought is indicated.

Necessary risk

The mission command-related deductions from chapter 4 suggest the commander's strong reliance on shared understanding, informed initiative, and necessary risk as the three core principles of mission command as well as the commander's intent as key to those core principles. The interplay of those principles becomes even more important as the operating environment becomes more complex, ambiguous, adverse, and uncertain. Against this backdrop and from a mission command standpoint, the assumption of necessary risk marks the final significant difference between

the recent operations in Afghanistan and Iraq and the future operations on the multi-domain battlefield.

According to Joint Publication 3-0, *Joint Operations* risk management is the process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk cost with mission benefits.[24] This definition implies, that, in general, risk can be identified and mitigated. In Afghanistan and Iraq, US forces had the initiative and could make tactical mistakes without significant consequences; possessing immediately available overwhelming firepower, close air support, and aeromedical evacuation mitigated tactical risks and shortfalls. In lieu thereof, operations and consolidation of gains on the multi-domain battlefield will be different. In large-scale combat operations in the current operating environment, US forces will neither have the initiative, nor overmatch; also, tactical "training on the job" at acceptable cost will be impossible. Thus, commanders across all levels of war have to realize that they will not be able to identify all possible risks. Instead, they will have to act in the face of uncertainty and develop the situation through action assuming necessary risk without mitigation measures in place. For instance, the primary purpose of tactical and operational reserves will not be risk mitigation, but to decide battles. Therefore, as risk aversion negatively impacts operational effectiveness, commanders constantly have to ask themselves, how willing are they to accept necessary risk? The change in mindset from risk aversion to assuming necessary risk without proper mitigation measures also touches the cultural change, which goes hand in hand with the paradigm shift as captured by Field Manual 3-0 (see summary of chapter 1). This shows how doctrinal change is meant to drive cultural change in the US Army.

Information—Virtual and Cognitive Consolidation of Gains

Field Manual 3-0 recognizes the importance of the IE, both in chapter 2 "Army Echelons, Capabilities, and Training" and chapter 8 "Operations to Consolidate Gains." The latter explicitly includes shaping the information environment as part of the consolidation activities. As outlined in chapter 3, influencing local populations is one of the consolidation activities, see Figure 3.3. Historic lessons from World War II show that it was crucial for US Army forces in Europe to physically occupy and run media outlets, which had been misused by the Nazi regime for propaganda purposes. This occupational necessity was part of the overall de-nazification campaign of the allies and leads to the pivotal role of ideology, which—in the face of radical ideologues and transnational criminal organizations such as Islamic State of Iraq and the Levant or al-Qa'ida—is even more important

for consolidation of gains today as it was at the end of World War II. To prepare the US Army for consolidation of gains on the twenty-first century multi-domain battlefield, doctrine needs to account more precisely for the role of ideology on the battlefield and has to stringently apply all four operational framework considerations to the consolidation area.

Role of ideology for consolidation of gains

In particular a closer look at Islamic State of Iraq and the Levant allows for a better current understanding of the role of ideology for consolidation of gains. Islamic State of Iraq and the Levant exists in two conditions: The physical caliphate as a physical manifestation and the virtual caliphate as an online manifestation. Consequently, "the military dimension … no longer stands alone as the most important arena of conflict … it is clear that the physical and virtual battlefields directly impact each other to such a degree that they now blur together."[25] Against this backdrop, increasing defeats on the physical battlefield caused Islamic State of Iraq and the Levant to shift its main emphasis to the online manifestation. Graebner explains that "the recent destruction of the Islamic State of [Iraq Levant] caliphate is forcing a complete transition within the terrorist organization."[26] The ideology, which had motivated fighters from all over the world to gather in Syria, is now carried on even more aggressively in cyberspace. According to James Dubik, reducing the attractiveness of Islamic State of Iraq Levant's revolutionary narrative is a significant challenge, as the necessary "counternarrative campaign is actually based upon facts that create a more attractive narrative; it is a campaign of civil and military actions … that first makes real the values and principles that the alliance stands for and seeks to engender more broadly, then demonstrates, the fallacies in the revolutionary narrative."[27]

The historic analysis shows that the necessary de-nazification in Germany further complicated the consolidation of hard won gains. A possible future conflict with one of the four major threats would—to a varying degree—also require the defeat of the respective underlying ideology. Forces with the tactical task to consolidate gains will most likely be the first to deal with that challenge intensively and directly. Thus, virtual consolidation of gains becomes increasingly important and, therefore, requires appropriate doctrinal coverage. Appendix A offers a non-exhaustive list of considerations for virtual and cognitive consolidation of gains, derived from Patrikarakos' Islamic State of Iraq and the Levant case study. This doctrinal coverage also needs to account for the operational and strategic-level support, which becomes necessary for virtual and cognitive con-

solidation of gains. Appropriate support relationships and reach-back procedures have to be pre-determined and established.

Overall, the emergence of the *homo digitalis* has significantly increased the potential "for the voiceless to gain a voice—especially in times of war. Equally, governments can now increasingly use those same technologies and manipulate their own populations."[28] All attempts to consolidate operational gains have to account for this double-edged sword of information technology. Otherwise, the purpose of consolidation of gains, to make enduring any temporary operational success and set the conditions for a stable environment allowing for a transition of control to legitimate authorities, will not be effectively addressed by tactical tasks assigned to units. This logic reveals that movement and maneuver and information operations can drive each other. Operations to consolidate gains can have the expanded purpose to support information operations.

Operational framework considerations in the information environment

The need to virtually and cognitively consolidate gains directly leads to the operational framework as "cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations."[29] Although the information domain spans across the entire physical area of operation, see Figure 3.5., Field Manual 3-0's chapter 8 "Operations to Consolidate Gains" does not stringently apply the operational framework considerations to the consolidation area.

The first priority for a unit with the assigned task to consolidate gains is to search and attack or cordon and search bypassed enemy remnants. Traditionally, as outlined in the movement and maneuver sub-chapter of chapter 3, those enemy elements were logistically and tactically isolated and cut off from any kind of support. Numerous examples from World War II show that "mopping up" those kinds of isolated enemy units was a common tactical task, independently conducted across all tactical echelons. In the current operating environment, a physically isolated enemy element is not necessarily also virtually and cognitively cut off, for instance, from lethal and non-lethal fire support. Such an enemy element might still have access, physically, to long-range precision fire capabilities, and virtually, to electronic warfare and information-related capabilities. The multi-domain battleconcept calls this the "strategic-to-tactical compression" of the battlefield.

As a consequence, the consolidation area gets indefinitely bigger in size and creates additional consolidation areas at all levels of war. Effectors in support of isolated enemy remnants might physically manifest somewhere else, maybe outside the area or even outside the theater of operations. Thus, the "strategic-to-tactical compression" of the battlefield, as suggested by the multi-domain battleconcept and introduced as part of chapter 2, makes US forces vulnerable to lethal and non-lethal effects at any place and any time in the world. Therefore, maneuvering to consolidate gains also has to account for maneuver in the information environment. Forces with the tactical task to consolidate gains need to be capable of developing a comprehensive operating picture of the information environment and—at minimum locally—influence or manipulate it. Appropriate effects have to be available—organically or through higher headquarters—down to the divisional level.[30] Joint strategic and operational-level headquarters and support need to enable the tactical level to solve tactical-level problems. Accordingly, the integration of those capabilities, the synchronization of the actions of those capabilities up to the joint level, and the convergence of the intended effects have to be coordinated across all tactical echelons.

(Non-Lethal) Fires—Preparedness for Temporary Military Authority

Preparedness for military government

> Army forces conduct consolidation of gains throughout the range of military operations. The US Army has always been required to consolidate gains. It did so with varying degrees of success in the Indian Wars, after the Civil War during Reconstruction, after the Spanish American War, during World War II, Korea and Vietnam, and more recently in Haiti, Afghanistan, and Iraq. How successful its efforts to consolidate gains were informed how the outcomes of those wars can be viewed today. Each conflict was unique and involved an Army role in the governance of an area for periods of time that were not predicted beforehand. As such, planning to consolidate gains is essential to any operation.[31]

This quotation as well as the historical analysis show that all successful operations to consolidate gains involved military government or forms thereof. Field Manual 3-0 acknowledges this by saying that "each conflict … involved an Army role in the governance of an area for periods of time that were not predicted beforehand." Numerous analyzed historical examples illustrate, that combat units could only focus on the close fight,

first, because they systematically cleared and defeated remaining enemy elements before maneuvering on and, second, because civil affairs detachments followed in the rear to immediately establish and provide military government. This went far beyond what Field Manual 3-0, *Operations* and Field Manual 3-07, *Stability* describe as minimum essential and primary stability tasks. Wherever possible, those civil affairs detachments tried to build on the existing or, if necessary, appointed new civil administration. In contrast, in those cases, where the US established a civilian-led administration, such as in the Philippines (1898 to 1907), in Northern Africa (1943 to 1944), and in Iraq (2003 to 2004), "these administrations were rife with all manner of problems."[32]

Having said this, Field Manual 3-0 uses Luzon in the Philippines (1945 to 1946) as historic vignette to exemplify the importance of area security operations as part of consolidation of gains activities. At the same time, the vignette clearly states that "in order to consolidate these hard-won gains, Soldiers began at once to re-establish law and order, first under military government but later transitioning to local authorities."[33] For several reasons, the Luzon vignette in its current form is not well suited as informative case study to convey the core message of Field Manual 3-0:

- The vignette does not display Field Manual 3-0's intended transitional blueprint from decisive battle with quick penetration of resilient tactical units in order to seize positions of relative advantage to consolidation of gains.

- Instead, the vignette emphasizes that long-term success in the Philippines was not just secured by area security operations, but—more importantly—by the immediate establishment of military government as part of the American way of occupation, as DiMarco would call it.

- In fact, the long-term Filipino-American effort did not regain the initiative from the communist insurgents known as the Hukbalahap (Huks) before 1952, i.e. seven years after the Luzon offensive.[34]

The central conclusion is that the US Army—at all levels of war—has to prepare itself not just to preserve and support the existing host nation civil administration, but to temporarily establish military government or parts thereof. This, of course, includes close coordination and cooperation with international organizations, such as the United Nations, and non-governmental organizations operating in the theater of operations. Such military government can become necessary both in liberated friendly territory, as was the case in France, or in occupied enemy territory, as was the case

in Germany. Both scenarios are in the realm of the possible; particularly regarding territories, which are de-jure friendly, but which might be de-facto hostile due to adversary population majorities. As a consequence, Field Manual 3-0 should do two things: first, in accordance with the Defense Instruction 3000.05 at the end of chapter 2, and as suggested by Figure 3.7., it should span its consolidation of gains "umbrella" wider to account for the possibility of actively assuming military government and, second, it should modify or abandon the Luzon vignette in exchange for one of the historical examples from World War II which are provided in this study.[35]

Need for tempo and perseverance

Related to large-scale combat operations and the probable need for military government are two further historic lessons, which are crucial for successful consolidation of gains: the need for both tempo and perseverance. Tempo is the relative speed and rhythm of military operations over time with respect to the enemy. One sub-component of tempo is speed. While speed can be important, commanders vary speed to achieve endurance and optimize operational reach. Perseverance has the purpose to ensure the commitment necessary to achieve national objectives; thus, perseverance involves preparation for measured, protracted military operations in pursuit of national objectives.[36]

For a counterinsurgency environment, Dubik concludes that "if there is a time lag between imposing security and providing public goods and services through reconstruction and development, that time lag plays to the insurgent's hand and works to delegitimize the host government."[37] This need for speed not only applies to counterinsurgency and combat operations itself, but in the same way to consolidation of gains activities, including the establishment and provision of military government. In that sense, Whitaker concludes that "the past has demonstrated that opportunities for rapid gains disappear quickly; speed and immediate organization efficiency are absolutely essential to exploit these early opportunities."[38] The failure to act quickly and with commitment endangers friendly gains and gives adversaries the chance to seize positions of advantage on their behalf—across multiple domains. Hence, regarding consolidation of gains, the principles of tempo—including measured speed—and perseverance are inherently linked to each other. Quickly seized gains need to be preserved and protected over time, at minimum until possible threats are removed and host nation or international organizations are in place and capable of assuming control. Referring back to the mission command-related call for the assumption of necessary risk, tempo and speed can actually

function as risk mitigation measures—at least on the outset of offensive operations.

Operational, strategic, and political dimension

The final aspect regarding military government deals with the inherent operational, strategic, and political dimension of consolidation of gains. The changes in the international security architecture caused by the end of the Cold War, on the one hand, as well as the amount and scope of military stability operations since that, on the other hand, have tremendously changed the role of the military in support of governance. In the past, the US military more often established direct military government; during recent stability operations, the military has focused on creating conditions in support of legitimate host nation governance. The 2016 Unified Action Handbook No. Two, *Handbook for Military Support to Governance, Elections, and Media* explains this paradigm shift as follows: "The military role has shifted away from direct military government, as in post-World War II Japan and Germany, to playing a supporting role in governance, often in cooperation with multilateral partners and intergovernmental organizations."[39] According to the handbook, four factors have mainly changed the role of the military for the establishment of governments. Those factors are:

- The increased complexity of the international system,
- The increased involvement of the United Nations in peace operations,
- The increased number of related stakeholders and interested parties, such as non-governmental organizations and the media,
- The decline of resources of other US governmental agencies.

Those four factors are still true, particularly—as the mission to Afghanistan has shown—due to the limited capacities and capabilities of other governmental agencies to sufficiently contribute to a whole-of-government approach.

Taking the paradigm shifts from the summary of chapter 1-the historic analysis, and the previously outlined consolidation area considerations into account, this study suggests to further emphasize the inherent operational, strategic, and political dimension of consolidation of gains. This also has to include the eventuality of military government. Two actions become necessary;

- The first step is to adjust and expand doctrine accordingly, particularly Field Manual 3-0 chapter 8 "Consolidation of Gains." If the intent in Field Manual 3-0 is to communicate the necessity for additional forces and capabilities for consolidation of gains both internally to the Army as well as externally to the political leadership, then doctrine should more precisely and in more detail reflect the probable need for the provision of governance, as that would require the political will to do so. This would at the same time fulfill Schadlow's criticism that "American civilian and military leaders have been reluctant to think through, operationalize, and resource efforts needed to consolidate political gains in war."[40]

- As Shadlow suggests, Tthe subsequent second step is to organize, train, and equip the US military to successfully consolidate the "political order, which requires control over territory and the hard work of building local government institutions" in order to consolidate political gains.[41]

A possible counterargument—with regard to the methodology of this study—is that the aspect of military government actually reaches beyond the tactical and into the operational scope of this study. Indeed, the decision to establish military government within liberated or occupied territory is purely a political decision. World War II and the decision to occupy Germany provide an excellent example. The same historic experience clearly shows that the strategic decision to establish a military government has strong operational and tactical implications—as military government's have to be accomplished on the ground, in close coordination with and in relation to the tactical level.

Summary of suggested doctrinal changes

When the early surrender of the remaining armed forces of Germany became inevitable, the division was moved into that portion of Westphalia situated south of the Ruhr River. You were charged with the maintenance of security and the operation of military government in a vast area including millions of recently conquered people and with the assembly and care of 175,000 Allied prisoners of war and displaced persons. This mission in a wholly unfamiliar field was in its immediate urgency and in the long range influence of its execution on the reconstruction of Germany as well as on Allied relations more important than any combat mission ever given to you. Every individual in the division immediately recognized the tremendous importance of his job and every individual has worked with energy, endurance, and personal enthusiasm far beyond the call of duty. The result has been another cherished triumph for the division.[42]

Field Manual 3-0 and—to an even greater extent—the multi-domain battleconcept attempt to accomplish a twofold purpose: They try to account for the emergence of peer and near peer adversaries as well as the reality of the multi-domain battlefield, and they also try to capture the information age as the current revolution in military affairs. The so-called firepower revolution in military affairs of World War I was the last time that militaries added a new domain to the battlefield, in this case the air domain. Doctrinal innovators, such as Gen. William E. DePuy with the 1976 Field Manual 100-5, *Operations* and Gen. Donn Starry with the 1982 and 1986 versions of Field Manual 100-5—introducing the famous airland battle operations concept—embraced this military revolutionary step and devised methods to defeat massed or echeloned Soviet forces primarily in Europe, but also globally.[43] Then, the US Army literally tested this doctrine during the 1991 Gulf War. In the same way as airland battle did back then in 1982, Field Manual 3-0 and the multi-domain battle concept modify the operational framework to devise a way of how to prevail on the future battlefield. This modification not only encompasses space and the information environment, including cyberspace, as new domains, it also adds the consolidation area and related consolidation of gains activities.

Thus, consolidation of gains is a new construct in doctrine, but—as this study has shown—not new as part of the American way of war. Numerous historic examples support that. The ultimate objective of consolidation of gains is to fulfill the strategic purpose of an operation or campaign. Consequently, the success or failure of the transition from large-scale combat operations to consolidation of gains determines whether a war is perceived as won or lost. How the US Army consolidated gains after World War I in the Rhineland and after World War II in Japan or—as suggested in this study—Germany, illustrates successful operations to consolidate gains upon completion of large-scale combat operations. All three cases have several central factors in common. In all three conflicts the US Army had to:

- Gain and maintain access to enemy territory against a peer adversary.

- Consolidate gains in the information environment against a radical ideology.

- Conduct occupation operations and temporarily establish military government.

- Execute intent-guided independent operations on a contested battlefield.
- Manage constantly shifting and increasing areas of operation.
- Demonstrate perseverance over an extended period of time.

Despite those positive examples, a long series of unsuccessful attempts to consolidate gains, such as in Haiti, Nicaragua, Somalia, Vietnam, and Libya, or more recently in Afghanistan and Iraq, illustrates the difficulty to effectively consolidate gains, particularly in the context of counterinsurgency operations. All those failures, on the one hand, underline that consolidation of gains will most likely not be a tactical short-term challenge and, on the other hand, support Nadia Schadlow's thesis, that the US military overall is not successfully organized, trained and equipped to consolidate the "political order, which requires control over territory and the hard work of building local government institutions."[44] According to James Dubik, the response-driven crisis management approach, which paved the way for the invasions into Afghanistan in 2001 and Iraq in 2003 shows that "thinking and acting strategically have not been America's strong suits—at least not since 9/11."[45] This realization is important, because consolidation of gains inherently spans across and connects all levels of war.

Thus, due to its recent entry into US Army doctrine, there are still open doctrinal flanks and unexplored, untested, and invalidated aspects with regard to consolidation of gains. This study has identified and analyzed some of those open doctrinal flanks. Accordingly, this study followed four methodological steps to answer the three secondary questions and finally the primary research question, see Figure 2.1.: How can the US Army tactically best plan and execute the transition from ground combat to the consolidation of gains? Four particular elements of combat power—movement and maneuver, mission command, information, and (non-lethal) fires—served as the magnifying class to enable the derivation of relevant deductions (see chapter 4) and the drawing of valid conclusions (see chapter 5). The main focus of these conclusions has been Field Manual 3-0, *Operations;* however, implications for mission command and leadership-related doctrine, such as Army Doctrine Reference Publication 6-0, *Mission Command,* or Army Doctrine Reference Publication 6-22, *Army Leadership* are indicated, too. In that sense, Figure 5.4. is an overview about the 18 suggested doctrinal changes, relating them to the relevant doctrinal publication. Summary of doctrinal changes list further summa-

rizes and details all those suggested doctrinal changes and modifications. The numeration and sequence of those suggested doctrional changes is informed by the flow of arguments, not by a priortization thereof.

Figure 5.4. Overview of suggested doctrinal changes.
Source: Created by author.

Suggested doctrinal changes

Movement and Maneuver

- Comprehensive cross-functional multi-domain consolidation area. Develop a comprehensive multi-domain consolidation area acknowledging all subsequent areas of operations (deep, close, and support area), multiple domains (land, maritime, air, space, and information environment, multiple operational framework considerations (physical, temporal, virtual, and cognitive), as well as the possible fluidity of the consolidation area (increasing, remaining unchanged, imploding).

- Coordination from army to corps to division level:

    - How do current Joint and US Army doctrine and concepts relate to consolidation of gains?

    - Codify the term cross-domain fires in doctrine.

    - Develop and establish necessary coordination measures across all echelons for 360 degrees shaping operations in the consolidation

area as well as cross-domain fire support missions, both lethal and non-lethal, inside, into, across, and out of the consolidation area.

- Appropriate force structure and personnel:

    - Further specify the capabilities a force needs to successfully execute operations to consolidate gains in multiple domains in order to enable he anticipation and request of the necessary additional combat forces either nationally or multinationally.

    - Define and develop necessary elements, both physical and virtual, which provide liaison, multi-domain planning and deconfliction, and interoperability.

- Informed initiative and independent operations. Based on informed initiative on a contested and degraded battlefield, codify independent operations, which are not cognitively and temporally independent from higher headquarters' intent, but physically and virtually independent from higher headquarters' control and support.

Mission Command

- Unpreceded complexity, ambiguity, adversity, and uncertainty. More precisely codify the interplay of all levels of leadership, in varying intensity and scope, with all levels of war. By doing that, emphasize the strategic dimension of consolidation of gains, as suggested by conclusion no. 18.

- Active intelligent disobedience. Doctrinally introduce active intelligent disobedience. By doing that, account for the interrelationship between active intelligent disobedience and necessary risk as well as the fine line between both.

- More procedural control to enable convergence of effects.;

    - Under the given realities of a contested and degraded battlefield, emphasize intent-guided procedural over detailed positive control.

    - Implement a doctrinal definition for convergence as the next logical step on the evolutionary ladder of combined-arms warfare.

    - Further develop military decision-making process and rapid decision-making and synchronization process from one-dimensionally land-focused towards multi-domain decision-making processes.

- Necessary risk. Adjust the doctrinal risk and risk management definitions, accounting for the fact that commanders—not having overmatch, initiative, and risk mitigation measures—will have to act in the face of uncertainty and develop the situation through action assuming necessary risk.

Information

- Role of ideology for consolidation of gains. Account for the need to virtually and cognitively consolidate gains. This includes competing with radicalized ideologues in a narrative space.

- Operational framework considerations in the information environment. Stringently apply all operational framework considerations—physical, temporal, virtual, cognitive—to the consolidation area. A stringent application of virtual considerations expands the consolidation area indefinitely.

(Non-lethal) Fires

- Preparedness for military government:

    - Account for the inherent interrelationship between operations to consolidate gains and the need for civil administration. Thus, doctrinally prepare the US Army not just to preserve and support existing HN civil administrations, but, if need be, to establish temporary military government or parts thereof.

    - In this context, exchange the historic vignette from Luzon in the Philippines (1945-46) against, for instance, the US Army's consolidation of gains at the end of World War II, as suggested by this thesis, or, alternatively, in the Rhineland after World War I.

- Need for tempo and perseverance. Establish tempo and perseverance as antagonistic, but intrinsically linked characteristics of consolidation of gains.

- Strategic dimension. Account for the inherent political and strategic dimension of consolidation of gains. This has to explicitly include the need for additional task-organized forces, maybe from multinational partners, as well as suggested by conclusion no. 15, the provision of temporary military government, as this would require the political will to do so.

Further Research

The purpose of this study was to identify potential challenges regarding the transition from large-scale combat operations to consolidation of gains as described in the 2017 Field Manual 3-0. Of particular intent to inform the US Army in general and Combined Arms Doctrine Directorate in particular about the process of developing new doctrine. Against this backdrop, the summary has addressed existing open doctrinal flanks and unexplored, untested, and invalidated aspects of consolidation of gains. At the writing of this study June of 2018, Combined Arms Doctrine Directorate was in the process of closing some of those doctrinal gaps. Regarding this, the final subchapter outlines two fields of further research, somewhat beyond the scope of the US Army, but which should be given further consideration for a joint level understanding of consolidation of gains.

Joint and Multinational Integration

Field Manual 3-0 clearly details the roles of brigades, divisions, corps, and the theater army regarding consolidation of gains.[46] While the theater army assumes a more passive role by supporting consolidation of gains through the execution of Title 10, the corps has to assume an active role managing division and brigade consolidation of gains. This implies that the corps—plugging into a Joint Task Force—will plan and operate astride the boundary between the tactical and operational level. For both, the Joint Task Force and the corps, this includes the necessity to conduct campaign planning by applying joint doctrine and operational art. A seamless integration of consolidation of gains into tactical as well as joint level planning and, consequently, doctrine is inevitable; otherwise, the purpose of consolidation of gains, which is to make tactical success lasting and, ultimately, to reach operational and strategic objectives, might not manifest. The recently published *Joint Concept for Integrated Campaigning* seems to be a first joint step towards joint recognition of consolidation of gains; "The problem is not merely conceptual. Commanders and their staffs must account for the changes in the political and public atmosphere that commonly take place in the period between the apparent military victory and a true consolidation of gains .... It is possible for the Joint Force to anticipate these shifts and to seek to begin the consolidation of gains as early as possible in order to guard against changes."[47]

Thus, a study of how consolidation of gains could be elevated from US Army to joint US and, ultimately, combined NATO doctrine and, additionally, how it should be integrated into the joint phasing model, would help to inform the development of US and multinational doctrine. The

threat posed by Russia in the European Theater of Operations provides the necessary background and urgency. Such a study could address the optional research question this study has not been able to exploit: How can multinational partners, such as the German military, tie into consolidation of gains at the tactical level on the multi-domain battlefield? Finally, a joint and combined perspective could also more precisely investigate how consolidation of gains looks like for both the air and the naval domains.

Continuous Consolidation of Gains in a Cyclical Conflict Continuum

This second recommendation for further research is closely related to the previous suggested study of the role of consolidation of gains for operational and joint level planning and doctrine. The fundamental question is, whether consolidation of gains is limited to a certain phase in the joint phasing model or, respectively, to a certain army strategic role, or whether consolidation of gains is a continuous process, see Figure 1.1, chapter 1, joint phasing model.

The multi-domain battle concept rests on the theoretical foundation that the nature of war remains unchanged. Notwithstanding, instead of assuming a linear conflict continuum from peace to war and back to peace, the concept suggests a cyclical conflict continuum, which is defined by the three circular stages of competition short of conflict, conflict itself, and the return to competition, see Figure 3.6, chapter 3.[48] Following the logic of this cyclical conflict continuum, consolidation of gains not only applies to armed conflict, it also applies to two other stages, competition short of conflict and return to competition. The joint phasing model indirectly accounts for this circular logic by explicitly allowing jumps across phases, such as from phase 0 *Shape* to phase 3 *Dominate.* The intent and purpose of this model is to get back to phase 0 *Shape* as quickly and efficiently as possible. In the same sense, Field Manual 3-0 stringently applies consolidation of gains to all four army strategic roles—shape, prevent, large-scale combat, and consolidate gains—with which the US Army contributes to joint operations.

This study has mainly focused on consolidation of gains upon completion of large-scale combat operations. Further research regarding consolidation of gains in all three stages of the multi-domain battleconflict continuum as well as all four army strategic roles would, again, help to inform US Army and joint doctrine development. The main focus of such an endeavor lies in the question of how to consolidate gains in competition below the threshold of open conflict or, as James Dubik calls it, in

the "gray zone."[49] Such research could also include the question of how the recently established Security Force Assistance Brigades contribute to consolidation of gains in operations to shape and operations to prevent and what other capabilities could contribute and support consolidation of gains during competition.

Notes

1. 82d Airborne Division, After Action Report 82d Airborne Division, May 1945 (Combined Arms Research Digital Library, Fort Leavenworth, KS).

2. James N. Mattis, "Remarks by Secretary Mattis on the National Defense Strategy," Department of Defense News Transcript, 19 January 2018.

3. See Appendix E, 1st Infantry Division, Survey and Feedback.

4. In its Appendix B and C, the multi-domain battle concept defines key required capabilities and supporting actions as well as multi-domain battle supporting ideas. Cross-domain fires is the integration and delivery of lethal and nonlethal fires across all five domains (land, maritime, air, space and cyberspace), the electromagnetic spectrum, and the information environment. The according required capability is to converge, integrate, and synchronize such cross-domain fires at the operational and tactical-levels to create windows of advantage to achieve friendly objectives, create dilemmas, or defeat enemy systems. For details, see US Army Training and Doctrine Command, *Multi-Domain Battle,* 57-58 and 61-62.

5. See Appendix E, 1st Infantry Division, Survey and Feedback.

6. Level III threats are made up of conventional forces. Level III threats may be encountered when a threat force has the capability of projecting combat power by air, land, sea, or anywhere into the operational area. Specific examples include airborne, heliborne, and amphibious operations; large combined arms ground force operations; and infiltration operations involving large numbers of individuals or small groups infiltrated into the operational area, regrouped at predetermined times and locations, and committed against priority targets. Air and missile threats to bases, base clusters, and lines of communication also present imminent threats to joint forces. Level III threats are beyond the capability of base and base cluster security forces and can only be effectively countered by a tactical combat force or other significant forces. For details, see Joint Chiefs of Staff, Joint Publication 3-10, *Joint Security Operations in Theater* (Washington, DC: Government Printing Office, November 2014), I-4. A hybrid threat is the diverse and dynamic combination of regular forces, irregular forces, terrorist forces, or criminal elements unified to achieve mutually benefitting threat effects. For details, see US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 1-3.

7. US Army Training and Doctrine Command, *Multi-Domain Battle,* 2.

8. US Department of the Army, Field Manual 3-0, *Operations,* 1-19.

9. Martin Sonnenberger, Initiative within the Philosophy of Auftragstaktik: Determining Factors of the Understanding of Initiative in the German Army 1806-1955 (Fort Leavenworth, KS: Combat Studies Institute Press, 2015), 49-57.

10. Clausewitz, *On War,* 119.

11. Direct leaders lead face-to-face and at first-line, organizational leaders lead rather indirectly through establishing policies and influencing organization-

al climate, and strategic leaders establish and modify force structures, allocate resources, communicate strategic visions, and prepare their subordinate units and elements for future roles. For further details on the levels of leadership, see US Department of the Army, Army Doctrine Reference Publication (ADRP) 6-22, *Army Leadership* (Washington, DC: Government Printing Office, August 2012), 2-4 – 2-5.

12. US Department of the Army, Field Manual 3-0, *Operations,* 2-56.

13. Ted Thomas and Ira Chaleff, "Moral Courage and Intelligent Disobedience," *Features* 8, no. 1 (Winter 2017): 62.

14. Meghann Myers, "Milley: In future wars, creature comforts are out and disobeying orders is in," *Army Times,* 4 May 2017, accessed 12 March 2018, https://www.armytimes.com/news/your-army/2017/05/04/milley-in-future-wars-creature-comforts-are-out-and-disobeying-orders-is-in/.

15. US Department of the Army, Field Manual 3-0, *Operations,* 1-17.

16. Baron de Jomini, *Summary of The Art of War,* trans. Captain G. H. Mendell and Lieutenant W. P. Craighill (Rockville, MD: Arc Manor, 2007), 73-76.

17. US Department of the Army, Field Manual 3-0, *Operations,* 1-6.

18. Integration is "the arrangement of military forces and their actions to create a force that operates by engaging as a whole;" synchronization is "the arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time." For details, see US Department of the Army, Army Doctrine Reference Publication 1-02, *Terms and Military Symbols,* 1-50 and 1-91.

19. Perkins and Holmes, "Multidomain Battle, Converging Concepts Toward a Joint Solution," 54-55.

20. For details on forms on control (positive and procedural) and the associated control measures (permissive and restrictive), see US Department of the Army, Army Doctrine Reference Publication 6-0, *Mission Command,* 2-16 – 2-17.

21. US Department of the Army, Army Doctrine Publication 5-0, *The Operations Process,* 4-6.

22. The operational variables are: (1) political, (2) military, (3) economic, (4) social, (5) information, (6) infrastructure, (7) physical environment, and (8) time. The mission variables are: (1) mission, (2) enemy, (3) terrain and weather, (4) troops and support available, (5) time available, and (6) civil considerations.

23. US Department of the Army. Army Techniques Publication 2-01.3, *Intelligence Preparation of the Battlefield/Battlespace* (Washington, DC: Government Printing Office, March 2015), 1-1 – 1-2.

24. Joint Chiefs of Staff, Joint Publication 3-0, *Joint Operations,* GL-14.

25. Patrikarakos, *War in 140 Characters,* 245-246.

26. Based on his current deployment experience as commander of 2d Battalion, 4th Infantry Regiment, 10th Mountain Division, serving in Mosul, Iraq, Graebner assesses that, at the macro level, Islamic State of Iraq and the Levant plans to reposition forces outside of Iraq and Syria, reinforce their digital caliph-

ate, and export expertise to conduct attacks in Europe and North America and, at the micro level, Islamic State of Iraq and the Levant will continue to operate in smaller decentralized cells throughout Iraq, use violence and terror to discredit Iraqi Security Forces and the Iraqi government, and maintain freedom of movement, but they must first consolidate and reorganize. According to Graebner, to consolidate gains in Iraq at the tactical and operational level requires joint effects, combined conventional clearing operations, and a partner force capable of conducting offensive operations based on actionable intelligence. For details, see Graebener, "A Tactical Approach to Consolidating Gains in a Post-Caliphate Iraq," 2.

27. Dubik and Vincent, *America's Global Competitions,* 20.

28. Patrikarakos, *War in 140 Characters,* 256.

29. US Department of the Army, Army Doctrine Reference Publication 1-02, *Terms and Military Symbols,* 1-70.

30. See Appendix E, 1st Infantry Division, Survey and Feedback.

31. US Department of the Army, Field Manual 3-0, *Operations,* 2017, 8-1.

32. Whitaker, "Military Government in Future Operations," 14.

33. US Department of the Army, Field Manual 3-0, *Operations,* 8-8.

34. Andrew J. Birtle, U*S Army Counterinsurgency and Contingency Operations Doctrine 1942-1976* (Washington, DC: US Army Center of Military History, 2006), 64.

35. The 2005 US Department of Defense Directive 3000.05 has established policy for the Department of Defense for military support for stability, security, transition, and reconstruction. The directive acknowledges that many stability operations tasks are best performed by indigenous, foreign, or US civilian professionals. Nonetheless, the directive points out that "US military forces shall be prepared to perform all tasks necessary to establish or maintain order when civilians cannot do so." For details see US Department of Defense, Department of Defense Directive 3000.05, *Military Support for Stability, Security, Transition, and Reconstruction (SSTR),* Homeland Security Digital Library, 28 November 2005, accessed 26 March 2018, https://www.hsdl.org/?abstract&did=464196, 2.

36. For details on tempo, see US Department of the Army, Army Doctrine Reference Publication 3-0, *Operations,* 2-7. For details on perseverance, see Joint Chiefs of Staff, Joint Publication 3-0, *Joint Operations,* A-4.

37. James M. Dubik, *Operational Art in Counterindurgency: A View from the Inside* (Washington, DC: Institute for the Study of War, May 2012), 19.

38. Whitaker, "Military Government in Future Operations," 11-12.

39. The Unified Action Handbook Series is a set of four handbooks developed to assist the joint force commander design, plan, and execute a whole-of-government approach. The second handbook of that series provides pre-doctrinal guidance for joint force support to good governance, political competition, and support to media. For details, see US Army War College, Peacekeeping and Stability Operations Institute, *Handbook for Military Support to Governance, Elections and Media. Unified Action Handbook Series, Book Two* (Carlisle Barracks, PA: US Army War College, 2016), I-4.

40. Schadlow, *War and the Art of Governance,* 272.

41. Schadlow, 1.

42. Maj. Gen. Ray E. Porter, Commanding General 75th Infantry Division, 4 June 1945, in a letter to his division. For details, see 75th Infantry Division, *The 75th Infantry Division in Combat, 23 December 1944 - 15 April 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS, 4 June 1945), 2.

43. Walter E. Kretchik, *US Army Doctrine: From the American Revolution to the War on Terror* (Lawrence, KS: University Press of Kansas, 2011), 282.

44. Schadlow, *War and the Art of Governance,* 1.

45. Dubik and Vincent, *America's Global Competitions,* 13.

46. US Department of the Army, Field Manual 3-0, *Operations,* 8-13 – 8-14.

47. Joint Chiefs of Staff, *Joint Concept for Integrated Campaigning* (Washington, DC: Government Printing Office, March 2018), 24.

48. Perkins, "Multi-Domain Battle, The Advent of Twenty-First Century War," 11.

49. For details on the "gray zone," see Dubik and Vincent, *America's Global Competitions.*

Appendix A
Virtual and Cognitive Considerations

Some central considerations for virtual and cognitive consolidation of gains, derived from Patrikarakos' Islamic State of Iraq and the Levant case study, are:[1]

- Language: Which is the enemy's preferred language to effectively communicate its narrative?

- Narrative: What is the enemy's actual narrative?

- Counternarrative: Which counternarrative appeals to the *homo digitalis*?

- Bureaucracy: How can the overall slow, centralized, reactive, perennial, and cautious behavior of government institutions be overcome to match the effectiveness of *homo digitalis*?

- Clearance: As social media does not lend itself to a deliberate clearance process, how can related "virtual social media fires" be adequately cleared (maybe, quicker than within the usual targeting and assessment working group cycle)?

- Capabilities: Which organic, non-organic, and non-military capabilities and assets are available to communicate and support the counternarrative?

- Credibility: How can faith in western institutions in general and the U.S. military in particular be promoted (against the backdrop of incidents such as the 2003 invasion to Iraq, Abu Ghraib, Guantanamo Bay, and others)?

- Volume: How can the necessary volume of social media amplifiers and messengers in favor of the U.S. military be stimulated (in comparison to, for instance, more than 90.000 pro-ISIL Twitter accounts)?

- Conflict settlement: How can peace be strategically reached, if this is not in the interest of the (mostly virtually existing) enemy?

Notes

1. Patrikarakos concludes that "bloated bureaucracies, risk averse and lacking credibility, will never defeat the most networked terror group in history." In addition—and beyond the scope of this study—he finds that the "the world continues to grow more unstable—and to look ever more like the years leading up to 1914." These considerations for virtual consolidation of gains are derived from chapter 11 and the Conclusion of Patrikarakos, *War in 140 Characters*: *How Social Media is Reshaping Conflict in the Twenty-First Century (*New York: Basic Books, 2017), 263.

Appendix B
Analysis Recording Matrix

A list of the step-3 analysis of this study follows. It contains analyzed observations and derived deductions based on the qualitative document analysis of historical literature and doctrine as well as current literature, doctrine, and concepts. The records use US Army elements of combat power to include warfighting functions, as reference framework and "burning class" to classify the analyzed observations. Finally, those observations serve as the foundation for the derivation of deductions with significance for consolidation of gains on the multi-domain battlefield.

Element 1—Leadership

- Language: Which is the enemy's preferred language to effectively communicate its narrative?

- In parts of the attack sector, American inexperience proved to be costly. Some units failed to account for all German machine-gun positions before passing them by. This failure to "mop up" caused one unit, the 107th Regiment of the 27th Division, to sustain the highest casualty rates of any American regiment in the war.[1] Significance: be constantly aware of the necessity to consolidate gains and plan, coordinate, and allocate sufficient resources.

- "Consolidation of gains requires more land forces to execute properly with training and support to ensure the units are capable of consolidation of gains. The current force structure does not meet the requirements for this."[2] Significance: the US Army division does not have sufficient organic combat power to consolidate gains. Higher headquarters have to provide the necessary resources.

- "Enemy units were inclined to offer little resistance to our advance, and the end was reached with the surrender of the entire 21st Army by Lt. Gen. von Tippel Skirch at 2130 hours on 2 May 1945 at Ludwigslust, Germany, 95 miles Northwest of Berlin, to Maj. Gen. James M. Gavin, commander of the 82d Airborne Division."[3] Significance: be prepared to negotiate with and process capitulating and/ or defeated enemy units.

- Convention (IV) respecting the laws and customs of war on land and its annex: regulations concerning the laws and customs of war on land. The Hague, 18 October 1907:[4] "Art. 42. Territory is considered occupied when it is actually placed under the authority of the hostile army. The

occupation extends only to the territory where such authority has been established and can be exercised."[5] "Art. 43. The authority of the legitimate power having in fact passed into the hands of the occupant, the latter shall take all the measures in his power to restore, and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country." Law of War Manual:[6]; 11.1.1 military occupation-notes on terminology. 11.1.1.1 military occupation, military government, belligerent occupation, and martial law. The practice of conducting military occupation is very old, and the law of military occupation has long been part of the law of war. Military occupation is also called belligerent occupation. The conduct of military occupation has also been characterized as an exercise of "military government" or "martial law."11.1.3.2 Liberation of friendly territory. The law of belligerent occupation does not apply to the liberation of friendly territory. Indeed, a belligerent occupation presupposes that the occupying power is hostile in relation to the state whose territory is being occupied. Field Manual 27-10 (Change No. 1 1976) ¶354 "Civil affairs administration is that form of administration established in friendly territory whereby a foreign government pursuant to an agreement, expressed or implied, with the government of the area concerned, may exercise certain authority normally the function of the local government. Such administration is often established in areas which are freed from enemy occupation. It is normally required when the government of the area concerned is unable or unwilling to assume full responsibility for its administration. Territory subject to civil affairs administration is not considered to be occupied."; Raymund T. Yingling and Robert W. Ginnane, The Geneva Conventions of 1949, 46 AJIL 393, 417 (1953), "While the civilian convention contains no definition of 'occupation,' probably nothing could be added to the principle in Hague Article 42 that 'Territory is considered occupied when it is actually placed under the authority of the hostile army. The convention will not apply in liberated territory of an allied country such as France in 1944 in relation to the United States and the United Kingdom."). 11.2 When military occupation law applies. The law of military occupation applies when a military occupation exists in fact. Even if the requirements of the law of belligerent occupation do not apply as a matter of law, general law of war principles and rules, such as those for the conduct of hostilities, continue to apply. 11.2.1 Military occupation as a fact. Military occupation is a question of fact. The legal consequences arising from the fact of occupation (i.e., that this fact is the basis for both rights and duties) illustrates how the law of war may be viewed as both permissive and restrictive in nature. 11.2.2 Standard for determining when territory is considered occupied. Territory is consid-

ered occupied when it is actually placed under the authority of the hostile forces. This standard for when the law of belligerent occupation applies is reflected in Article 42 of the Hague IV Regulations and is regarded as customary international law. 11.2.2.1 "Actually placed"-effectiveness of occupation. Military occupation must be actual and effective; that is, the organized resistance must have been overcome, and the occupying power must have taken measures to establish its authority. It is sufficient that the occupying force can, within a reasonable time, send detachments of forces to enforce its authority within the occupied district. Military occupation does not require the presence of military forces in every populated area, although the occupying force must, inter alia, control the most important places. The type of forces used to maintain the authority of the occupying power is not material. For example, the occupation might be maintained by permanently based units or mobile forces, either of which would be able to send detachments of forces to enforce the authority of the occupying power within the occupied district. Air superiority alone would not constitute an effective occupation.

Element 2—Information

- "Information-related capabilities advance the commander's intent and concept of operations; seize, retain, and exploit the initiative in the information ecosystem; and consolidate gains in the information environment, to achieve a decisive information advantage over enemies and adversaries."[7] Significance: virtually consolidate gains in the information environment.

- "Joint Chiefs of Staff 1067 ordered the German information services, including moving pictures, to shut down completely, presumably pending an overhaul and subsequent establishment of free speech and press. Occupied Germany was not going to be a hotbed of resurgent Nazipropaganda; it was going to be an information desert. Experience soon showed that the one could be as potentially dangerous as the other. If the occupation had no voice, the people would live on rumors."[8] Significance: control, operate, and ensure (occupied) media and postal services, to include the internet today.

- "Maintaining an information offensive. This means proactively messaging the population with culturally receptive messages that align with the operational and strategic objectives of the higher headquarters." "Reducing exposure to a catastrophic information attack. This means having intelligence networks that regularly monitor the information en-

vironment and having a responsive counter information campaign readily available when the adversary launches an info operation." "The actual information fight is echelons above a division due to the speed, national caveats, and how a division operates. The information plan must be synchronized at the corps and theater because multiple units may pass through until a final unit completes consolidating the gains."[9] Significance: the division needs a current operating picture of the information environment to contribute to a proper counter information campaign. The information campaign itself is carried out echelons above the divisional level. Therefore, themes and messages have to align across the levels of war.

Element 3—Mission Command

- "Army forces operationalize multi-domain battle with three interrelated components of the solution: calibrating force posture to defeat "hybrid war" and deter adversaries' "fait accompli" campaigns, employing resilient formations that can operate semi-independently in the expanded operational area while projecting power into or accessing all domains, and converging capabilities to create windows of advantage to enable maneuver. Semi-independent operations are those friendly operations that, either through a commander's intent or an adversary's actions, are separated for a period of time from traditional control and support measures. The idea of semi-independence applies tactically and operationally, and best enables friendly forces to exercise initiative in highly contested and degraded environments. It also requires the entire force to anticipate, enable, and support semi-independent operations through mission command systems, sustainment, protection, and medical support and services."[10] Significance: enable independent, separated operations according to the principles of the mission command philosophy.

- The encirclement of the Ruhr; The Ruhr had been selected as an objective even before the Allies landed in Europe, and all major commanders appear to have understood this. Thus, the intent was well understood for a long time by those who would have to act on it. The original plan was modified to take advantage of two unexpectedly easy crossings of the Rhine before the main effort in the north. The encirclement was not spelled out at first, instead, the orders simply called for creation of a bridgehead in the south by First and Third Armies before attempting the linkup. The next modification came on 28 March, when the success of First Army's breakout had become clear: only then were the-executing echelons finally given orders which would lead directly to the encirclement. The echelon which should have controlled the linkup forces, 12th Army Group, was unable to

do so for two reasons. First, part of the encircling force came from another army group. Second, the tee guided projectile was too far removed from the front to control the linkup. Although the planning echelons—Ninth and First Armies—were close enough to exercise control, neither army headquarters actually crossed the Rhine. Only the corps headquarters did. The linkup was eventually effected between VII Corps and Ninth Army, principally on the initiative of General Collins, VII-Corps Commander, and aided by artillery spotter planes at the end. This part of the operation was not very well carried out by higher echelons; rather, initiative at the executing level rescued the linkup."[11]

- Field Manual 101-5; "VII Corps, commanded by Maj. Gen. (later General) J. Lawton "Lightning Joe" Collins, had to expand the Remagen Bridgehead as well as plan for the breakout and exploitation into the German industrial heartland. VII Corps had prepared, and the commanding general had given the order orally on 22 March, following up on the 23d with a written order, including overlay, intelligence annex, and fire support annex. The order, both the oral and written, left sufficient flexibility for adaption from the time of its issue until its execution. Especially notable is the brevity and simplicity of the basic order. Such simplicity and brevity reflect the combat-tested experience and standard operating procedures of VII Corps and the divisions within First US Army. D-day and H-hour for Field Order 18 were at 0400 hours, 25 March 1945. The corps accomplished its initial objectives by 26 March, seized the corps objective by 27 March, and exploited to Marburg on 28 March. The corps issued a subsequent field order 19 on 28 March for follow-on operations. These eventually involved closing the Ruhr Pocket with XIX Corps from Ninth Army to the north on 1 April 1945, after covering 300 kilometers in seven days, with over 300,000 German soldiers in the pocket. During the European campaign, VII Corps issued only 20 field orders, or an average of two per month, to control operations; many of these "confirmed oral orders CG VII Corps."[12]

- "Reestablishment of communication with semi-independent operations is a priority to avoid sustainment based culmination."[13] Significance: independent operations are limited by the operational reach of the unit.

- "On 22 February, EGAD opened a school at Romilly Sur Seine to give Air Force and airborne officers two weeks' training in military government liaison."[14] Significance: ensure constant mission-related training, particularly for military government and support to governance.

Element 4—Movement and Maneuver

• 4 January 1945: "The division consolidated its gains of 3 January, seized limited objectives, and prepared to continue the attack pending further advance of VII Corps. 325th Glider Infantry captured HILRLOT and ODRIMONT, established contact with adjacent units and consolidated positions. 504th Parachute Infantry assumed responsibility for a portion of 517th Parachute Infantry sector and attacked to take the high ground Southeast of FOSSE. The accomplishment of this mission would permit the division to dominate all crossings of the SALM River in vicinity of GRAND HALLEUX. 505th Parachute Infantry; continue to attack, seize high ground and woods north and northeast of ABREPONTAINE and consolidate positions."[15] 19 March 1945: "With the added weight of the 12th Armored Division (Maj. Gen. Roderick R. Allen), General Walker's XX Corps made the more spectacular gains. By midnight of the 19th, the 12th Armored was across the upper reaches of the Nahe and had gone on to jump a little tributary of the Nahe, more than twenty-three miles from the armor's line of departure of the day before. The 10th Armored Division stood no more than six miles from Kaiserslautern. Two of the infantry divisions of the XX Corps, their regiments motorized on organic transport supplemented by trucks from supporting units, mopped up behind the armor, while the 26th Division completed its onerous task of rolling up West Wall fortifications, then turned eastward in a drive that converged with a north-eastward thrust from Saarlautern by the 65th Division. In the XII Corps, the 4th Armored Division on 18 and 19 March failed to regain its earlier momentum, partly because the division had to divert forces to clear Bad Kreuznach and partly because the Germans with their backs not far from the Rhine stiffened. In the two days, the 4th Armored advanced just over ten miles beyond the Nahe. It remained for the newly committed 11th Armored Division on the XII Corps right wing to register the more spectacular gains. Following its disappointing showing in the Eifel, the 11th Armored had a new commander, Brig. Gen. Holmes E. Dager. Under Dager's command, the division on 18 March raced twenty miles to the Nahe River at Kirn. The next day the armor streaked another nineteen miles to the southeast, reaching a point as far east as Kaiserslautern. When combined with the drive of the 12th Armored Division on the north wing of the XX Corps, the 11th Armored's rapid thrusts tied a noose around what remained of the enemy's XIII and LXXX Corps. As the efforts of those two corps to withdraw across the Nahe and form a new defensive line went for naught, the infantry divisions following the American armor mopped up the remnants of the 2d Panzer Division and three volks-

grenadier divisions. Little more than the headquarters of the two corps escaped."[16] "Six more days—12 through 17 February—were to pass before the XII Corps could carve a full-fledged bridgehead from the inhospitable terrain. On the morning of the 12th, the two assault regiments of the 80th Division finally linked their bridgeheads, and that evening the two divisions also joined. After 11 February, when the 417th Infantry reverted to control of its parent division, units of the 76th Infantry Division (Maj. Gen. William R. Schmidt) began crossing the river to assume defensive positions along the Pruem as the 5th Division turned north, but this was a slow process simply because the 5th's advance was slow. On 14 February the 5th Division's 11th Infantry finally took Ernzen, southernmost of the villages on the high ground between the Sauer and the Pruem, but only after artillery lined up almost hub-to-hub on the other side of the Sauer joined with fighter-bombers to level the buildings. En route northward, a battalion of the 2d Infantry fought its way out of the woods as night came on the 16th and entered Schankweiler, thereby coming roughly abreast of the 80th Division, but the village was not entirely in hand until the next day. Although the Germans in most places fought with determination, they could take credit for only part of the delay. The condition of supply roads west of the Sauer and continuing problems of getting men and heavy equipment across the swollen river accounted for much of it. Without the little M29 cargo carrier (Weasel), a kind of full-tracked jeep, vehicular traffic in the mud of the bridgehead would have grounded to a halt. Nor did the 80th Division, in particular, launch any large-scale attacks, concentrating instead on mopping up pockets of resistance, jockeying for position on high ground north and northeast of Wallendorf, and building up strength in supporting weapons and supplies before making a major effort to expand and break out of the bridgehead. One unusual item of equipment introduced to both the 5th and 80th Divisions in the bridgehead was the T34 multiple rocket launcher, a 60-tube cluster of 4.5-inch rocket launchers mounted on a Sherman tank. The 80th Division was to begin its new advance early on 18 February, but at first it would be directed less toward capture of Bitburg than toward helping eliminate an enemy holdout position lying between the XII Corps bridgehead and the penetration of the VIII Corps at Pruem."[17] 1 April 1945: "Mopping up was continued in VIII Corps zone by the 76th, 87th and 89th Infantry Divisions and the 6th Cavalry Group. Previously they had reached the eastern limits of the zone, but had by-passed several pockets of enemy resistance which they were systematically clearing out at the beginning of April."[18] Significance: aggressively search and attack to seize key terrain and/ or to ("mop-up") defeat, destroy, or capture by-passed enemy units or elements thereof that

are cut off from their main body and support in order to create windows of advantage for further operations.

• 19. 31 March 1945: The 70th Infantry Division was to be responsible for the Army area RHINE River … all inclusive. After effecting necessary coordination therein with the Army provost marshal and Army civil affairs, the division was to guard all bridges, maintain law and order, both civil and military, regulate and control traffic on main supply routes, guard all public utility and military government installations, protect Army supply points and installations and be prepared to assemble for movement outside of the Army area on twenty-four hours' notice."[19] April 1945: "Duties of Military Government carried out by the 82d Airborne Division in the Cologne area include the following: Search and seizure. Check of every individual in the division area. Collection of *Wehrmacht* weapons, ammunition and articles of war. Apprehension of *Wehrmacht* deserters and other Army personnel. Apprehension of Nazi officials and war criminals. Enforcement of laws and ordinances and general supervision of the German administration. Following the division's move to the ELBE River area the situation was one more tactical than military government during the last days of April."[20] 9 April 1945: "Despite adverse wind conditions, practice smoke screens were laid in sections of the division area. Mortar and machine gun fire was placed on observed enemy positions. There were two patrols. The division relieved the 761st Field Artillery Battalion of responsibility of guarding bridges on the Erft Canal at 2300 hours. Artillery fired 57 missions, 704 rounds."[21] May 1945: "All the essentials of military government were accomplished. Those included, establishment of law and order, removal and appointment of officials, re-establishment of the economic life in the area to include food rationing, labor, communication, public utilities, public welfare, and the establishment and operation of military government courts supervising the civil administration and operation of more than 150 *gemeinden.* Initially, upon occupation, immediate surveys of captured enemy food and medical supplies were made, such supplies being frozen in warehouses established by the logistics section. Demands were made upon the communities for food stuffs, clothing, medical supplies, operation and administrative necessities for the operation and administration of camps for displaced persons. Bakerien were re-established and put into maximum production, necessitating procurement of labor, raw food stuffs, fuel, and power. The entire productive facilities were placed at the disposal of the "displaced persons" camps. A survey of the electric power for the area indicated that the sources were in the hands of our Russian allies. Notwithstanding, separate sources of supply

of power were developed, such supplies being rationed for essential military and civilian needs."[22] Significance: while continuing search and attack operations, simultaneously conduct security and stability operations, including primary stability tasks and provision of military government. This includes securing critical infrastructure and key terrain, protecting the host nation population, establishing civil security and control, restoring essential services, supporting economic development, and establishing all necessary functional areas of military government.

- "Moreover, the division and regimental boundaries shifted frequently, at times almost every day, and each new command seemed to have its own concept of how military government ought to be conducted."[23] Significance: plan for and de-conflict constantly shifting tactical boundaries in the close area, the tactical support area, and the consolidation area.

- "One of the major limitations with the consolidation area is the tension between providing combat power forward in the close fight, while also providing adequate combat power in the consolidation area capable of defeating emerging threats and securing the population and the ground lines of communication."[24] Significance: the division has to consider how much combat power to assign to operations to consolidate gains versus to the close fight.

- "During certain operations, the corps headquarters may need to aggressively assume the division's consolidation area in order to allow the division to advance and focus combat power in the deep and close fight against a peer threat. "Rapid transition of the consolidation area to corps control is necessary if division momentum is critical to mission success."[25] Significance: the division needs to be prepared to rapidly transition the consolidation area to follow-on forces.

- "The division's support area command post focuses on the consolidation area. Thus, 1ID plans to control the consolidation area using the support area command post with the deputy commanding general of support as the senior officer. "What makes this even more confusing is the tactical support area and consolidation area overlap. The division must prescribe careful task organization, boundaries, tasks and support relationships to make this happen." "Deconfliction should be planned by having clear command and support relationships and well defined boundaries and tasks by phase for units. It becomes even more important as subordinate brigade consolidation areas transition to the division consolidation area. This transition must be sequenced and described and logically for sub-

ordinate units."[26] Significance: the division's support area command post with the deputy commanding general—support is currently best suited to coordinate and deconflict between the consolidation and the tactical support area. Careful task organization, boundaries, tasks and support relationships are mandatory. The fluidity of the consolidation area might require phased operations to enable the transition of the consolidation area from divisional to follow-on units.

- 34. "If the Rhine crossing was to have the advantage of surprise, the preparations of the assault divisions had to be screened from the enemy. This necessitated intercepting enemy patrols which might cross the Rhine for the purpose of collecting data on the buildup. During the division's stay on the west bank, not one of the ten German patrols engaged by our troops was able to return to its lines. Typical encounters were those of 16 March, when Company I, 289th Infantry, fired on an enemy rubber boat and forced it to withdraw; of 17 March, when Company A, 290th Infantry, killed two and captured one of a three-man patrol; and of 22 March, when a 7-man patrol in the 290th Infantry sector was either killed or captured. Our own patrols to the enemy shore were as successful as the enemies were unproductive during the period 10-24 March. Of the more than 30 patrols organized by the three regiments, 19 were able to produce valuable enemy intelligence, including information about enemy strength, dugouts, trenches, pillboxes, wire, observation posts, 88mm guns, antiaircraft, machine gun, mortar and artillery positions. Several enemy prisoners were taken."[27] Significance: continuously conduct recon/counter-recon fight.

- 11 April 1945: "Operations instructions No. 3 was issued in the nature of a warning order, listing areas in which units of the Division would carry out occupational duties. The Division Military Police and Reconnaissance Platoons were instructed to begin a thorough search of rear areas."[28] Significance: plan anhead for transition fromcombat operations to stability occupation operations.

Element 5—Intelligence

- "From 18 April until its relief 25 April, the 82d Airborne Division carried on occupational duties in Cologne, Germany. A thorough search was made of the area by sectors to locate prisoners of war and caches of arms, ammunition and explosives. Guards and administrative personnel were provided for displaced persons camps, bridges and ammunition dumps were guarded and minefields were located and marked."[29] Significance: identify and exploit suspected sites (SSE).

• "Division artillery uncovered what was apparently a Werewolf cache of weapons near ESSEL, where over 100 rifles and two boxes of ammunition were protected against water and found in the deep end of a swimming pool."[30] "A night stop at Muenden, north of Kassel, produced a rare experience, a reasonably bona fide encounter with the Werewolf organization: That evening, squadron leader Cordon Freisen [the local military government detachment was British] ... invited us to assist in the interrogation of a pair of Hitler *Jugend* toughs caught with a notched pistol and supply of explosives near one of our bridges. Their attitude was typical, at first openly defiant, then as hunger and fatigue began to work, more and more malleable. The amusing thing about these youths and the Nazis we subsequently questioned was their complete willingness to betray one another once they were convinced that a friend had tattled, and it required very little persuasion to convince them that they had been betrayed. As a result we organized a raiding party of four officers and six enlisted men. We picked up three Nazis in possession of illegal arms. All of them lied like troopers to start with, but invariably lead us to where the weapons were hidden-generally under the eaves of an outbuilding. It was very picturesque in the full moonlight reflecting off of the helmets and weapons of the men. We topped off the evening with a raid on an inn in the suburbs which had been established as a sort of headquarters for the local "werewolves." One of the Hitler youths had admitted that there were four female military personnel at the inn, one of which was his sweety. He betrayed her quite cheerfully. The result was, we swooped down on the inn and ransacked the place thoroughly."[31] "One information source the Germans had overlooked was the church. Since the occupied area was overwhelmingly Catholic, the priests knew nearly everyone and a great deal about local politics."[32] Significance: identify, discriminate, and collect on regular and irregular forces as well as criminals and terrorists. To do so, exploit all possible and genuine sources of information.

Element 6—Fires

• 12 April 1945: "Surrender propaganda was broadcasted to German troops. Military government was enforced in the Division area."[33] Significance: influence adversaries/enemies.

• "The enemy's ground maneuver formations depend on the effect of the integrated service routers-strike systems (pairing of integrated service routers networks with highly capable fires systems). They execute offensive and defensive combined arms operations to seize and hold key terrain which secures the enemy's primary military objectives: protect integrated

service routers-strike and integrated air defense system assets, and destroy friendly forces.[34]" Significance: disrupt/deny isolated/by-passed enemy units the employment of integrated service routers strike capabilities.

- "The enemy's integrated service routers strike system is its critical capability in armed conflict. It employs long-range, anti-surface strike and fires (air-launched, maritime-launched, and ground-launched cruise and ballistic missiles); integrated service routers capabilities (including unmanned aerial systems, Special Operations Forces sensors, etc.)."[35] "Enemy information warfare operations in armed conflict complement long-range fires and focus attacks on friendly cyberspace networks and space-based communications; intelligence; reconnaissance; and positioning, navigation, and timing systems."[36] Significance: detect and counter enemy (deep) physical and virtual fires.

- "All appointments to civil posts were being made by military government on a temporary basis only, and in numerous, localities officials first chosen were removed when investigation revealed connections with the Nazi Party or when performance in office was found to be inefficient."[37] "Finding men for the higher posts who had no Nazi involvement was an arduous business. The search (or candidates had required the combined efforts of military government and the counterintelligence corps, and at the end of May some positions were still unfilled. At Coblenz, the hunt had not yet turned up enough qualified persons to begin establishing a district administration. The recruiters had not only to weed out Nazis but also to steer dear of over-involvement with other political factions."[38] "First came the posting of the Supreme Commander's proclamation and the ordinances."[39] "The displaced persons executive was a special case. In the month of July, United Nations relief and rehabilitation administration had 2,656 persons in 332 displaced persons teams deployed throughout the western zones. It planned to more than double its personnel, set lip a central headquarters for Germany near Frankfurt, and then take over entirely the care and supervision of the displaced persons from the military authorities. For the interim, which was expected to be about three months, the displaced persons executive continued as the combined displaced persons executive, operating under the existing supreme headquarters allied expeditionary force directives but without authority to make new policy."[40] Be prepared to establish military government or parts thereof. As soon as feasible, transition military government by appointing a new and/or by preserving and supporting the existing host nation civil administration. Where applicable, this includes international organizations and/or nongovernment oganiza-

tions. If military government is assumed, disseminate relevant proclamations and ordinances in the public.

• Military government courts were regarded as most important. They were expected, on the one hand, to enforce sternly the authority claimed in the proclamation and ordinances and, on the other, to point up for the Germans the difference between nazism and democracy by giving fair and impartial trials to all accused. Modeled after Army courts martial, the military government courts convened on three levels: summary (one officer), intermediate (one or more officers), and general (not less than three officers). Summary courts could impose up to one year in prison and fines in marks up to $1,000; intermediate courts, ten years in prison and fines to $10,000; and general courts, the death penalty and unlimited fines."[41] Significance: organize military government courts and/ or provide supervision and control of host nation legal administration. This includes prisons, penitentiaries, and other penal institutions.

• As long as hostilities lasted, verbal deterrence–the promise of punishment–was the only feasible approach for the US government. The other possibility of bringing to trial war criminals as they were captured, although a more positive deterrent, could also bring reprisals against US prisoners of war in German hands. In the first week of September, just before the first troops crossed the German border, supreme headquarters allied expeditionary forces instructed the army group commanders to take all war criminals into custody 'so far as the exigencies of the situation permit'"[42] Significance: chase, apprehend, process, and try war criminals, terrorists, and criminals. Consider strategie implications.

• "In general, no one was allowed to travel more than three miles from his home, and gatherings of more than five people, except in food queues and in church, were prohibited. The key to population control was knowing who was being controlled; this problem provided the detachments with their first big job. Every adult civilian had to be registered and issued a registration card, which provided the military government a permanent hold on him."[43] "For convenience and for security, civilians had to be kept out of the way for tactical troops. Often the commanders preferred to have the civilians removed altogether; in early October V Corps tried evacuating a five-by-ten-mile area in the Eupen-Malmédy sector where the inhabitants were nominally Belgian although real loyalties were difficult to determine. V Corps' civil affairs officer thought little of the experiment at the beginning, and even less later. It proved what military government

doctrine had assumed all along—namely that people could be controlled best at home. Moving them was expensive; imposed hardships on the old, the young, and the ailing; made the evacuees economic charges of the occupation forces when their own crops and property were lost or damaged; and allowed dissidents to conceal themselves easily."[44] Significance: establish public order and safety.to control the local populace. De-conflict/minimize interference of civilians and/or capitulated military elements with friendly military operations. Designate internally displaced person/prisoner of war movement routes and assembly/holding areas.

- "Division headquarters are not resourced to execute local military governments. 1ID can plan the essential requirements prescribed in the Army Doctrine Reference Publication 3-0 *Unified Land Operations* doctrine of food, water, shelter, and access to emergency care but can only do so with (a) non-government organizations/international government organizations/department of state support of (b) increased military support to assist with governance. Assets here could be added to the division task organization if such a phase was required." "The division can best support the formation of a military government by establishing a civil military operations center as early as possible in the operation and by leveraging human intelligence to understand the operating enironment while it is consolidating gains." "As owner of battlespace in the consolidation area, the maneuver enhancement brigade manages the temporary establishment of military governance."[45] Significance: the division can conduct minimum essential stability tasks only with support of unified action partners.The division can support the establishment of military government.

Element 7—Sustainment

- 48. "On 5 October, Detachment 14G2 had reopened the Kreisbank in Monschau. In the following weeks other banks reopened at Roetgen, Stolberg. Buesbach, and Aachen. The purpose, psychological rather than economic, was to give the occupation an appearance of permanence and stability."[46] Significance: establish property and financial control and isolate enemies and ardent sympathizers from the financial system.

- "Maj. Gen. J. Lawton Collins, commanding VII Corps, declared that the Germans would have to be fed one way or another because the American soldier would not permit women and children to starve while he was well fed."[47] Significance: provide immediate humanitarian assistance.

- January 1945: during the second phase, 15-24 January, the 75th Infantry Division took part in the XVIII Airborne Corps' coordinated

attack to retake ST. VITH and its vital road net. The division's role in the battle-to cross the SALM River to capture VIELSALM-was a classic example of the double envelopment. The division's achievements were measured in ground-held and ground-gained rather than in striking enemy losses. Nevertheless, 1142 prisoners of war had passed through the division's cage by 24 January, and six tanks and much other materiel were destroyed. Our own losses were heavy. During the period 24 December24 January, the division suffered 407 killed, 1707 wounded, and 334 missing. The intense cold proved as serious an antagonist as the enemy. Non-battle casualties: largely trench foot, frostbite, and cold injury, accounted for 2623 casualties. The men were not fully prepared for severe winter warfare. Shoepacks had not yet arrived and the available overshoes frequently filled with snow. Gloves were not in adequate supply. Because of the constant fighting, wet clothing was difficult to replace."[48] May 1945: "Patients transferred by Army ambulances from division clearing stations and similar levels to US Army hospitals during the period 1 August to 8 May numbered 269,187. Those evacuated from the US Army area were 164,810 patients; 28,826 by air, 91,005 by road, 1,164 by boat, and 43,815 by rail. Mortality from all types of battle casualties treated by Third US Army hospitals amounted to 2.78 percent. The percentage of deaths from all causes to dispositions made of all cases was 1.4 percent. US Army patients who returned to duty without evacuation from the Army area numbered 114,024, or 43.5 percent as compared to dispositions."[49] "The growing capability and capacity of the adversaries' weapon systems will increase lethality throughout the operational area and across domains, and challenge joint force capabilities to create overmatch."[50] "Fifth, adversaries, including super-empowered individuals and small groups, use access to cyberspace, space, and nuclear, biological, radiological, and chemical weapons of mass effects to change the battlespace calculus and redefine the conditions of conflict resolution."[51] Significance: collect, transport, and process massive numbers of casualties, including patients who are radioactively, biologically, or chemically contaminated. The same applies to mortuary affairs.

- 8 April 1945: "The 82d Airborne Division assumed responsibility on 8 April 1945 for three Ddisplaced persons camps, one … for "Westerners," one … for Russians, and one … for Polish Nationals. The condition of the camps was particularly bad, when the division assumed control."[52] On 16 April 1945: "A minimum of ten percent of the persons in forward areas of XII Corps zone were found by military government officers to be displaced persons. In factory areas this figure was much higher. A total of

112,000 displaced persons were in camps throughout the Army zone."[53] "The pre/surrender directive for military government made care, control, and repatriation of United Nations displaced persons the second of seven major military government objectives. As such it became a command responsibility."[54] "The eastern Europeans, who made up marc than half of all the displaced persons, hereafter became an unanticipated long-term responsibility of the occupation forces. Unanticipated too was the amount of care and supervision they needed."[55] Supreme headquarters allied expeditionary force policy guaranteed the displaced persons and recovered Allied military personnel, the latter in the Rhineland mostly French and Russian prisoners of war, adequate food, shelter, and medical care at the Germans' expense to the maximum extent, and out of Army resources whenever necessary."[56] Significance: direct, collect, transport, control, and repatriate (massive numbers of) internally displaced persons and refugees. Consider cultural, religious, and ethnic differences.

• 3 May 1945: "The division's main activity during the day was the direction of prisoners and displaced persons to the rear. No count of prisoners taken was possible, but it was estimated that the surrendered German Twenty-First Army totaled approximately 144,000 men."[57] May 1945: "Aside from the normal routine of personnel activities, the division personnel section was concerned primarily with the problems incident to the capture of many thousands of German prisoners of war, and the supervision of the evacuation of liberated allied prisoners of war, and the evacuation of displaced allied nationals. A minimum estimate of the number of German prisoners of war who surrendered to the 82d Airborne Division has been set at 144,000, during the period subsequent to the crossing of the ELBE River and the rapid advance to a junction with the Russian forces between LUDWIGSLUST and GRABW, Germany. Prisoners were disarmed and returned to the rear to the XVIII Corps (Airborne) prisoner of war cage, vicinity of BEVENSEN and HAMBURG, Germany on foot and in such German military vehicles as would run. Liberated allied prisoners of war: More than 10,000 liberated allied prisoners of war were processed through division collecting points to American and British Army points at LÜNEBURG, HILDESHEIM, and HAGENOW. More than 20,000 displaced nationals, both Eastern and Western, from co-belligerent and conquered countries, were processed through division 'displaced persons' camps." Significance: collect, transport, process, and handle massive numbers of allied and enemy prisoners of war.

• ELBE River Area: "Division logistics section, was responsible for supervising the vast quantities of lost and abandoned American and enemy equipment and supplies in the area."[58] May 1945: "Following the surrender of German forces, troops of the 82d Airborne Division made a systematic, thorough search of the division area, and all salvageable enemy equipment was collected in a number of dumps established throughout the section. This equipment consisted of large numbers of assorted vehicles, vast stores of ammunition and innumerable minor items. All such equipment was inventoried carefully and complete records were maintained and later turned over to the British 5th Division which relieved the 82d. The following major items were among equipment and supplies collected in the division salvage dumps: trucks and passenger vehicles 1,911; half-tracks 81; tanks 11; motorcycles 145; and flak wagons 21;"[59] Significance: collect, inventory, and stage lost friendly and captured enemy equipment and make it available to friendly tactical operations and/or friendly civil-military operations (cargo and passenger vehicles, shelter material, generators, etc.).

• May 1945: "On the 16th of May, upon request of the military government, a few local phones for the town of LUDWIGSUST were installed. Telephones were installed for doctors, dairies, food stores, fire stations, and the like at the time."[60] Significance: restore and/or maintain essential services and utilities.

• April 1945: "Maj. Philip Shafer, head of the Displaced Persons Executive, Third Army, had one officer and two enlisted men under him on 1 April. In the field he had twelve displaced persons detachments (eighty-seven officers and men); thirteen French mission militaire liaison administrative welfare teams, each with one officer, a male driver, and two or three enlisted women; and a scattering of French, Belgian, Dutch, and Polish liaison and medical officers. Totaling 230 individuals, they were soon had to deal with 1,500 times their own number of displaced persons and recovered allied military personnel. A dozen United Nations relief and rehabilitation administration teams and eleven emergency displaced persons detachments added during the month were barely enough to keep the ratio from going higher. The armies formed fifty-one displaced persons detachments, received forty-three United Nations relief and rehabilitation administration teams and a like number of mission military liaison administrative teams, and still had to divert tactical units ranging up to the size of a division (the whole 29th Infantry Division for instance) to Displaced Persons Executive duties. By 16 April they had uncovered a million dis-

placed persons, and they would pass their second million before the month was over."[61] Significance: provide support to international organizations and non-government organizations

Element 8—Protection

- "To restore order, VII Corps assigned the 690th Field Artillery Battalion as military government security police." "An average small town was getting only about four or five days of actual military government in a month. To help the detachments keep order … the armies converted field artillery battalions to security guard duty and began authorizing them to appoint Buergermeisters and post the proclamations and ordinances."[62] Significance: train and equip friendly non-combat forces for supportive security tasks.

- "First Army civil affairs office began an experiment in training captured German policemen for work under the occupation. After evacuating them, the Germans had put many of the Aachen police at the front, and some had been captured. As prisoners of war they could not be used, but since they had been captured in police, not Wehrmacht, uniforms, First Army decided that they were not actually prisoners of war."[63] Significance: re-establish and/or maintain and train host nation security forces. Conduct security cooperation, if applicable.

- "As a kind of housewarming for the zone, United States Forces, European Theater planned and executed at daybreak on 21 July, a check and search operation code-named TALLYHO for forty-eight hours. The objectives were to check the credentials of all persons in the zone, civilian or military; to search all premises and individuals for prohibited articles, such as firearms and stolen US government property; and to search for evidence of black-marketeering. Staged in secret, to the extent that an operation employing 163,000 troops in the Western Military District alone could be kept a secret, TALLYHO apparently did take most Germans by surprise."[64] Significance: identify, isolate, and defeat adversary subversive activities.

- "The army and army' group civil affairs sections reported that they could not prevent it's spread to the troops with the resources they had; Supreme Headquarters Allied Expeditionary Force Europe issued orders making public health a command responsibility and the concern of all US medical officers."[65] Significance: provide immediate medical care and public health protection including the prevention of spread and control of

communicable diseases. Assist with re-establishing and/ or maintaining host nation public health functions and services.

• The monuments, including archives, in the Supreme Headquarters Allied Expeditionary Force Europe official list totaled 1,055 for all Germany. By late March, 12th Army Group had identified 600 in the path of its advance alone. Supreme Headquarters Allied Expeditionary Force Europe had listed 15 monuments in Aachen. After the city was captured, the number rose to 66."[66] "With a history dating to Charlemagne and a special position as the coronation city of medieval German kings and emperors, Aachen had been known particularly for its architectural treasures. Of these only four-the cathedral, the Pantlar (the four-century city gate), the Frankenberg Castle, and the Haus Heusch (an old patrician dwelling)-could be described as 'to a degree spared."[67] Significance: identify, inventory, preserve, and secure monuments, fine arts, and archives of scientific and historic importance for future restoration.

Notes

1. Neiberg, *Fighting the Great War,* 349-350.

2. See Appendix E, 1st Infantry Division, Survey and Feedback.

3. 82d Airborne Division, *After Action Report 82d Airborne Division, May 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS), 4.

4. International Committee of the Red Cross, "Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land," The Hague, 18 October 1907, accessed 14 January 2018, https://ihldatabases.icrc.org/ applic/ihl/ihl.nsf/Treaty.xsp?action=openDocument&documentId=4D47F92DF3966A7EC12563CD002D6788.

5. In contrast to the US military, the ICRC views occupation as effective whenever a party to a conflict exercises some level of authority or control within foreign territory, which, for instance, also includes advancing forces during the invasion phase (ICRC's *Commentary to the Fourth Geneva Convention* (1958)).

6. Department of Defense, Office of General Counsel, *Law of War Manual* (Washington, DC: Department of Defense, June 2015), 735-821, accessed 14 January 2018, https://www.defense.gov/Portals/1/Documents/law_war_manual15.pdf.

7. US Army Training and Doctrine Command, *Multi-Domain Battle,* 62.

8. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 174.

9. See Appendix E, 1st Infantry Division, Survey and Feedback.

10. US Army Training and Doctrine Command, *Multi-Domain Battle,* 2.

11. Connor, *Analysis of Deep Attack Operations,* 36-39.

12. US Department of the Army, Field Manual 101-5, *Staff Organization and Operations,* H73.

13. See Appendix E, 1st Infantry Division, Survey and Feedback.

14. Ziemke, *The US Army in the Occupation of Germany 1944-1946,* 194.

15. 82d Airborne Division, *After Action Report 82d Airborne, December 1944-February 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS), 1.

16. MacDonald, *The Last Offensive,* 258-259.

17. MacDonald, 106.

18. Third US Army, *After Action Report, 1 August 1944-9 May 1945, Chapter 11, April 1945, Nearing the Finish* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS.15 May 1945), 337.

19. Third US Army, *After Action Report, 1 August 1944-9 May 1945, Chapter 10, March 1945, Crossing the Rhine* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS.15 May 1945), 325.

20. 82d Airborne Division, *After Action Report 82d Airborne Division, April 1945* (World War II Operational Documents, Combined Arms Research Digital Library, Fort Leavenworth, KS), 12.

21. 82d Airborne Division, *After Action Report 82d Airborne Division, April 1945,* 4

22. 82d Airborne Division, *After Action Report 82d Airborne Division, May 1945,* 9.

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