

Making the Difficult Routine



US Army Task
Organization at the Army
and Corps Level in
Europe, 1944

Lieutenant Colonel Brian C. North





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Editor Jennifer B. Fike

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This book owes a great deal to the suggestions, guidance, and support of my Advanced Military Studies Program monograph director, Dr. Stephen Bourque. It was at his initial suggestion that I looked at the US Army during the initial European campaign in a new light, and as such I will never read another history book without stopping and asking, how did they make that task organization change so easy? As a Signal Corps officer, I inherently understand how difficult changing task organization can be, and it surprised me how both participants and historians have failed to examine or give credit to those factors that made it possible.

I also would like to thank Dr. Peter Schifferle, whose book provides the base upon which this study was built and who has been generous with providing me leads and sources. Colonel James Sisemore served as both my second reader and another primary source, as I built upon his study of the quality of students and instructors during the interwar period. I hope I have lived up to his standards. In the process of defending my monograph to Dr. Stephen Lauer and Colonel Brian Petit, I found great clarity and incorporated it into this version.

The staff of the Combat Studies Institute, in particular Dr. Don Wright, provided me with an invaluable opportunity to revise my original paper into the current form by provide critical feedback. Having never worked with an editor before, a special thanks must go out to Jenna Fike – only now do I understand why every author goes out of their way to thank their editors. Her effort and expertise turned this book into reality and it would not have happened without her.

Like any research project, I relied heavily upon the experience of professional research assistants, in this case at both the Fort Leavenworth Combined Arms Library and the Eisenhower Presidential Library. Elizabeth and John Dubuisson from Fort Leavenworth provided a wealth of materials from their collection. Kevin M. Bailey and Chalsea Millner from Eisenhower Presidential Library were exceptionally helpful and their efforts ensured that in two days I was able to collect more information than I could utilize.

Finally, I need to thank my both my mother and my wife, neither of whom are historians, who helped with both editing and clarity in my writing. In the end, this project has been both professionally and personally rewarding, and any shortcomings are purely my own.

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Foreword

For more than 70 years, historians have closely examined the US Army's experience in the Second World War. That conflict has offered a multitude of insights about the complexities of modern warfare, as well as the timeless nature of combat. A critical part of the US Army's story in that war was its development from a force that was untested and inadequately equipped at the beginning of the conflict to the highly-effective and efficient modern Army that landed at Normandy, liberated France, and fought its way into Germany.

Lieutenant Colonel Brian North's *Making the Difficult Routine* offers new insights into this history. His study examines US Army forces in northwest Europe in the summer and fall of 1944, focusing on the striking number of changes in task organization at the corps and army levels made in this period of intense combat. After D-Day, as the Allied front moved east and broadened, American commanders had to find ways of reorganizing to accommodate newly arrived units and a constantly changing battlefield. North argues convincingly that the ability to make these changes was a critical element in the US Army's combat effectiveness.

The author devotes much of his study to identifying the factors that allowed the US Army to change task organization with such rapidity and efficiency. North finds that most of this success was due to the officer corps' educational experience in the interwar period which gave them, among other things, a shared understanding of doctrine that made shifts in organization less disruptive. The careful selection of the men who commanded at the division, corps, and army levels as well as those officers chosen as liaisons between these units were equally important in successful task organization.

As Lieutenant Colonel North points out in his conclusion, the factors that allowed for rapid task organization in 1944 remain critical for the US Army today. As the Army resets and prepares for an uncertain future, it will need well-educated officers who understand common doctrine and have the flexibility to adapt quickly to changing conditions, on the battlefield and elsewhere in a complex operational environment.

Donald P. Wright, Ph.D. Deputy Director Army Press

Chapter 1 Introduction

Major General Leland Hobbs and the 14,000 soldiers of the 30th Infantry Division, "Old Hickory," came ashore on the beaches of Normandy, France on 11 June 1944 as an untested unit. They joined British, Canadian, and American units in an effort to break out of the Normandy beachhead and defeat the German Army Group B. Over the next two months, the United States First Army Staff would change the higher headquarters of this division seven times, almost weekly, as senior leaders shifted their few combat effective divisions in an effort to penetrate the German defensive line and break into the French countryside.

Upon landing, the 30th Infantry Division initially worked for VII Corps, but received orders to report to XIX Corps when the corps headquarters arrived in France on 15 June. That day, the division participated in its first offensive action to secure a line between the American beachheads with one regimental combat team. As the remainder of the division completed the landing, 30th Infantry Division took its placed holding the defensive line for the next three weeks. On 7 July, XIX Corps directed the division to conduct the critical crossing of the Vire River, a complicated maneuver requiring significant combined arms coordination, to which the Germans responded with a major counterattack on 11 July.

Four days later, Major General Omar Bradley, Commander of First United States Army, began to shift his forces in preparation for Operation Cobra. 15 July would be a busy day for 30th Infantry Division. At 0540, it attacked to secure the intended line of departure for the entire operation, an offensive that continued throughout the day. That night XIX Corps sent an order transferring the division to VII Corps effective at 2400 hours. Completing the change during the night, Hobbs resumed the offensive at 1000 the following morning under his new corps leadership.³ The division participated as one of the lead divisions in Operation Cobra, which included the infamous bombing fratricide that cost the division 64 killed and 374 wounded in two days.⁴ Despite this loss, Hobbs and his troops achieved all of their assigned objectives by 20 July, having led the way in the swing south out of the swamps onto solid ground, securing the eastern flank of the breakthrough force.⁵

As the successful breakthrough became exploitation, the 30th Infantry Division returned to XIX Corps control on 28 July as the division faced a counterattack by the 2nd Panzer Division. Six days later, it came under V Corps control and the next day shifted to VII Corps, as First Army adjusted forces in order to rest battered units like the 30th Infantry Division while it sought to encircle German army. By 13 August, the division had returned to XIX Corps control and front line duty, where it replaced the 1st Infantry Division around St. Barthelmy, France and would serve as a major player in the battle to repulse the German counterattack aimed at Avranches through Mortain. The repulse of this counterattack would be

the epic battle of the entire war for the 30th Infantry Division, and quite possibly the decisive engagement for the German army in the battle for France.⁶ This division would go on to participate in the race across France, the liberation of Belgium, the breakthrough of the Siegfried line, the Battle of the Ardennes, and the ultimate defeat of Nazi Germany.⁷

During this entire period, the 30th Infantry Division was nearly constantly in contact with the German Army – conducting offensive missions, defending against enemy counter-attacks, or clearing areas of remaining enemy soldiers. Despite his ever-changing corps headquarters, Hobbs never required an operational pause to integrate with his new command, often transitioning between units in the midst of major engagements.⁸ This division performed extraordinarily well, especially considering the conditions. Colonel S.L.A. Marshall, the European Theater Command Historian, wrote a letter to Hobbs in 1946, stating that he and thirty other command historians studying the European Theater campaigns recommended that General Dwight D. Eisenhower, Supreme Allied Commander for Europe, recognize the 30th Infantry Division as the top-ranked division based upon its flawless combat record.⁹ However, it was far from the only division to undergo multiple task organization changes while in combat, and is in many ways representative of the typical command relationship for newly introduced divisions.

Task organization is the process of grouping units together for a specific mission for a limited time. ¹⁰ It was common in World War II for corps, divisions, regiments, battalions, and even companies to be grouped differently for each battle. There is an important distinction in the record between how effective task organization was at the division and above level versus the attachment of separate brigades and battalions. Task organization at the higher level was very common. In the period between June and October 1944 in Europe, there were nine changes of corps alignment under United States armies and no fewer than 65 changes of division alignment under corps. ¹¹

Doctrinally, divisions were the largest standing tactical unit, designed to operate independently. Corps, army, and army group headquarters were designed to allocate resources, typically low-density specialty units, to the divisions as needed. This was the second type of task organization. Generally, the constantly changing task organization of specialty brigades or battalions reduced combat effectiveness. Units like engineers, tank destroyer, and tank units needed to establish relationships with their supported units, especially when the soldiers lacked training or experience working together. After action reviews, interviews, and memoirs consistently criticized the practice of pooling, or collecting these special units and task organizing them as required.¹²

This study will focus on task organization of division and corps units. The flexibility of the United States Army to adjust commands and formations on the move was a large contributor to the Allied victory on the continent. Studying the

factors that enabled these types of task organizations in World War II informs how the US Army can develop leaders and processes in preparation for future conflicts.

Changing task organization was, and is, not an easy mission. The linkage between a unit and its higher headquarters entails significant systems required to run modern mechanized armies. A commander must understand the capabilities and limitations of the units he directs, and this understanding does not come from briefing charts on manpower numbers, combat power, or operational readiness rates. History is replete with examples in which the human element played a large role in determining victory or defeat. The morale of the unit, personality of the senior leaders, and capability of junior leaders often have a decisive effect upon a battle. For a commander, appreciation of these intangibles in the units he or she leads requires time. Commanders also must be able to describe their vision of the battle-field and plan of action to subordinates. Because the practice of command is more of an art than a science, each commander develops their own way of personally visualizing and describing. The process of truly communicating requires learning by both the subordinate and superior.¹³

For the staffs, changes in task organization can be even more disruptive. Staffs must share common procedures in order to transmit orders, receive reports, collect and disseminate intelligence, and coordinate fire support. From the simple problems of format and suspense dates for reports, to the more important tasks of linking requirements to capabilities, smooth staff interoperability was and remains integral for the functioning of modern armies. In World War II, the exchange of liaison officers played a huge role in coordination between units. In times of limited communications and fast moving battles, liaison officers represented their commanders in decision-making, planning, and tracking of the battle. Sustaining modern armies required a substantial supply system, especially when further complicated by keeping up with fast-moving and changing chains of command. Logistics is typically the most critical factor in determining operational reach and preventing culmination. Establishing and maintaining communications systems among all of these units was also a major challenge. The technology available in 1944 relied primarily upon wire-based communications, especially at the level of divisions and above. Each change of relationship required rerouting circuits and establishing new lines, both of which took time and effort. Without these communications, staffs would be unable to coordinate the complex command, control, and support requirements of the modern battlefield.

Despite the complicated nature of task organization changes, army and corps commanders in the European Theater of Operations directed changes on a regular basis without losing combat effectiveness. This study seeks to explain the factors that made these shifts in task organization possible and how they contributed to success in combat.¹⁴

The United States' entry into World War II presented the nation's military leadership with a number of significant challenges. The response to these challenges

reflected the education and doctrine that the Army developed in the interwar years. The experiences of the First World War affected every senior leader, whether they had served or not. Like leaders in the other combatant armies, American officers sought solutions to the stalemate of that conflict. The problems posed by fire support, logistics, tactics, and command and control of large unit operations in Aisne-Marne, St. Mihiel, and Meuse-Argonne drove the development of United States Army doctrine and education during the interwar years.¹⁵

Operating on limited budgets and with a small standing force, the Army's senior leadership made decisions about preparing for the next war while remaining in the shadow of the First World War. Starting in 1940, they began transforming an army of 120,000 regular soldiers with no practical experience operating in units above the regimental level into a combat effective force of nearly eight million in army groups operating across the globe. The War Department created new large unit organizations, trained thousands of citizens to serve as commanders and staff officers, and developed strategic and operational plans for defeating the Axis forces in every imaginable environment. They faced enemy forces that had years of combat experience and had already defeated nearly every other western army in battle with superior tactics and equipment.

One of the major factors that contributed to the success of the American army was organizational flexibility. This flexibility enabled commanders to exploit opportunities by shifting units when and where needed. The infantry division was the basic combined arms unit in the army's concept for large unit employment. The division was self-sustaining and capable of fighting independently. A decision to limit the total army to ninety divisions in order to preserve the nation's industrial capacity and fight in multiple theaters resulted in the limited availability of combat ready divisions for planning and executing operations throughout the war.

Operations in Northwest Europe presented further challenges; the terrain and deep-water ports of northwestern France offered difficult operational limitations in particular. After securing the Normandy beachhead, the Allied armies had to break out of the *bocage* of Normandy in a widening front. Commanders had to mass combat power into this front using their few experienced divisions and untested new divisions who arrived in congested and temporary port facilities off the beaches of Normandy.

The solution, more often than not, required shifting division and corps task organizations to ensure overwhelming combat power at decisive points. Commanders at the army group, army, and corps levels moved units around frequently, particularly in preparation for an operation. Many divisions changed corps assignments four times in the three-month period. Even corps moved between armies, with VIII Corps reporting to three different army headquarters in October 1944 alone. Senior leaders accepted the risks inherent in these shifts because their training, doctrine, and leadership provided confidence in their ability to continue operations despite the challenges posed by terrain, weather, and an experienced

foe. Commanders made these changes for a variety of tactical and operational reasons, including simplifying command and control, preventing units from becoming idle, and allowing for effective pursuit of the German forces.

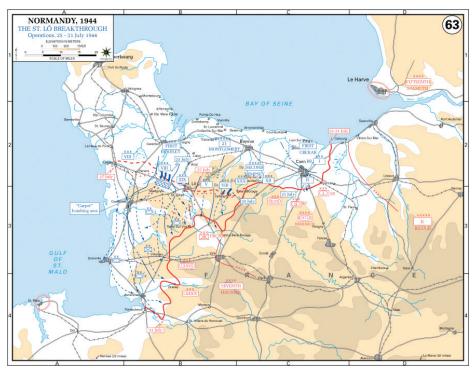


Figure 1: The beaches and *bocage* of Normandy required Allied commanders to constantly introduce new divisions in an effort to mass combat power for a breakout. Map courtesy of the USMA, Department of History.

Remarkably, neither participants nor historians have emphasized, studied, or analyzed how the United States Army achieved this flexibility in task organization. Many historians have studied the transformation from a peacetime army into a dominant combat force. The distinguished historian Russell Weigley in Eisenhower's Lieutenants set the standard for many scholars by analyzing the application of American military thought during the interwar period through the European War, what he terms as "American army's greatest campaign," although he was critical of the lack of aggressiveness by senior leaders. 19 A number of other authors have also tackled the development and performance of both the American Army and its leadership. Carlo D'Este in Decision in Normandy, Peter R. Mansoor in The GI Offensive in Europe, David W. Hogan Jr. in A Command Post at War, Michael D. Doubler in Closing with the Enemy, James Jay Carafano in After D-Day, and Edward G. Miller in Nothing Less than Full Victory all have variations on this general theme of transformation from a third-rate army formed upon its frontier background to the dominant military power on the plains of Europe. ²⁰ These historians note the frequent task organization changes, often crediting them with providing

the decisive combat power at the right moment. However, none comment on how the US Army was able to accomplish this feat. There is a school of historians who argue that the American army was poorly led, tactically inept, doctrinally bankrupt, and only succeeded because of its material superiority. These scholars find very few accomplishments in the Interwar Army.²¹

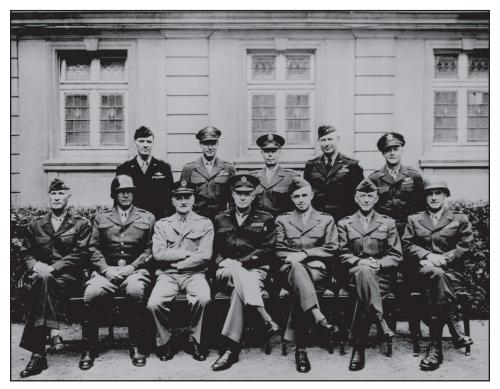


Figure 2: Senior American Generals in the European Theater in 1945: seated left to right are William H. Simpson, George S. Patton, Jr., Carl Spaatz, Dwight D. Eisenhower, Omar Bradley, Courtney H. Hodges, and Leonard T. Gerow; standing are Ralph F. Stearley, Hoyt S. Vandenberg, Walter Bedell Smith, Otto P. Weyland, and Richard E. Nugent. Image courtesy of US National Archives.

A number of recent books, however, reevaluate the performance of the American Army in a much more positive light. In his book *America's School for War*, Peter Schifferle explores the role the Fort Leavenworth military education system had in preparing the future leaders of the army for positions as division, corps, army, and army group leaders. Schifferle argues that senior leaders were well-prepared for the challenges of combat, and victory was in great part due to their professional education. Michael R. Matheny complements Schifferle's study to include the entire military school system, focusing on the role of the service war colleges in developing officers skilled in the operational art in his book *Carrying the War to the Enemy*. Stephen Taaffe's *Marshall and His Generals: U.S. Army Commanders in World War II* analyzes the selection, relief, and promotion process

that General George Marshall and other senior leaders used for the general officers who led the American Army. In his detailed study of every combat leader at the level of corps and above, Taaffe's conclusion supports the importance of the interwar education and Marshall's role in selecting quality senior leaders. Steven Barry's *Battalion Commanders at War* identifies the important role Regular Army officers played in implementing tactical doctrine and leading the United States' rapidly expanded combat units in battle. Although not a historical study of World War II specifically, Stephen Biddle's book *Military Power* combines close review of recent historiography with formal theory, case method, statistical analysis, and simulation experimentation to develop an employment concept he calls the modern system. His analysis of operations in Europe refutes the assumption that the American army won by superior materiel, rather finding their use of tactics and operational offense and defense was better than the German Army. Combined, these books provide the points of departure for this study.²²

The biographies and autobiographies of many of the American leaders support the view that the Army's interwar transformation was both remarkable and successful. General Omar N. Bradley, General George S. Patton, Jr., General J. Lawton Collins, and Lieutenant General Troy H. Middleton all credit the interwar period for influencing their ability to lead large units, and specifically the Army school system for influencing their personal development and success. Each of them felt a great deal of pride in the performance of the United States Army in Europe. They often mention task organization changes, sometimes in reference to a conference or decision, but like historians writing on this topic, they do not address the complexity or impact of making the changes. ²³

Both the historians and participants mentioned above approach and examine the American experience in Europe from different perspectives, but agree that the United States Army had succeeded in building a capable force by the fall of 1944. They also address the task organization changes in a similar fashion – mentioning them briefly in passing, usually while linking the arrival of a new unit with the success in a particular battle. They seem to accept that the units were able to execute these changes quickly and without significant effort, ignoring the inherent complexity of the task. While both historians and participants recognize flexibility was critical to massing combat power, none examined what was necessary to support that flexibility.

The United States Army built a citizen-based force in less than three years and executed complicated task organization changes on a routine basis in combat. What factors enabled the Army to do this? This level of flexibility could have come from a standing professional army well versed in large unit operations. The army that landed on the beaches of Normandy, however, was heavily reliant upon citizens turned soldiers with little real experience conducting large unit operations. Another method could have been a rigid command and control system that expected every unit to operate like part of a machine — interchangeable and lockstep in following orders. This approach is far from the reality of the US Army's emphasis

on mission-type orders and initiative, demonstrated by a majority of commands during the war. Determining the factors that enabled the striking success with rapid changes in task organization is important not only to understanding how the US Army achieved success in the European Theater, but also to shaping the army's development today and in the near future.

If the US Army is called upon to execute combined arms maneuver operations today, the current operational concept relies upon brigade combat teams to demonstrate great flexibility in task organization. Today's brigade combat teams are expected to operate with different divisions as its predecessors did in World War II with divisions under corps. With similar limitations on force structure, it will be critical that these units are able to integrate with new division headquarters on the move and maintain the initiative. This flexibility enables commanders to exploit operational opportunities as they present themselves. Much like the army of the inter-war period, there will be little opportunity for brigade combat teams and divisions to practice this kind of organizational flexibility in live exercises. Thus, the army can and should turn to its own history to identify the factors that enabled previous success.

World War II in general provides a rich environment for evaluating large unit operations. Further, operations in France in 1944 provide an ideal case for the focused study of task organization at the division and corps level. The United States generated eighty-nine divisions, twenty corps headquarters, eight field armies, and five army groups that participated in combat operations across the globe in World War II. However, it took the United States time to build, train, and deploy their forces.

The first combat operations in Northern Africa involved one corps and four divisions with relatively simple and static task organizations. These units gained valuable combat experience while serving as a proving ground for future senior leaders. The senior leadership of the Army found the experience reinforced their belief that assigning high quality people to large unit command led to battlefield success. The invasion of Sicily involved more forces, but the entire operation lasted merely five weeks and did not require the introduction of follow-on forces or major changes in task organization. For the first time an actual American army-level headquarters controlled combat operations, and the corresponding task organization became increasingly complicated. These larger staffs gained valuable experience implementing the concepts and theory learned in classrooms, and many would go on to form the core of the large unit staffs that directed the invasion of Europe.

Operations in Italy again required more forces, and for the first time allowed the introduction of follow-on forces to replace depleted organizations or conduct sequential operations. The Italian geography meant that the front was linear and limited, and theater commanders utilized only one US army and, at the height of the campaign, two US corps in what was truly a combined Allied force. This limited the tactical or operational need for shifting divisions between corps, instead favoring rotating units in and out of the front lines. Additionally, the demands of building up forces for the invasion of Europe relegated this theater to an economy of force mission that drew little attention.

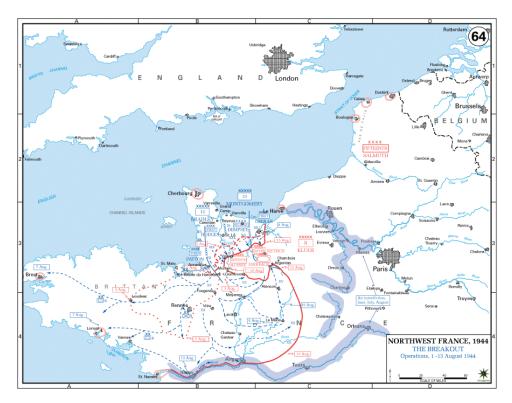


Figure 3: After breaking out of the beaches, the Allies faced expanding fronts in all directions across the plains of Europe. As the pocket around Falaise tightened, units had to be shifted to maintain momentum. Map courtesy of the USMA, Department of History.

Operations in the Pacific likewise did not see the requirement to make constant changes in task organization as senior leaders tended to utilize more fixed organizational structures due to the geographic and operational limitations of the island-hopping campaign. For example, the Leyte Campaign was a full joint operation involving multiple United States corps, but the task organization remained relatively stable throughout the fighting. The Philippine terrain allowed multiple avenues of approach and independent movement of corps, conditions that would not be present where the Allies planned on landing in Europe. ²⁴

It was in the European theater that the United States Army would employ the largest units and execute regular changes in task organization. Specifically, the period from the landings in Normandy in June 1944 through the following October featured a significantly large number of task organization changes that tested the

Army's flexibility and capability to create combat effectiveness out of organization modification. The initial landing sites limited the throughput of new units, and the slow but steady pace of divisions introduced a requirement to activate corps and army headquarters to control them. The first four months of the campaign experienced more turmoil in command relationships as units were committed where needed and front expanded rapidly. Changes to task organization decreased in late 1944 as the pace of advance slowed and the front stabilized with the arrival of winter.

The geography of Western Europe also contributed to the need for constant changes to grouping of forces. Upon breaking out of the beachhead along the western French coast, the Allies faced an expanding front in all directions as they sought to secure the Brittany ports, liberate France, and strike at the heart of Nazi Germany. The open plains of Europe favored this expanding front, particularly as the pace of the breakout accelerated. The geography also favored the near continuous nature and length of the campaign. All of these factors resulted in the need to rotate units out of the front lines to rest and refit. Leaders also found the need to mass forces to take advantage of tactical opportunities to encircle isolated German forces, which eventually created situations where units ran out of room to maneuver as the pincers closed. By shifting these forces to a new area, yet more task organization changes resulted. The expanding front, attempts to encircle German forces, and race across France drove changes in task organization as leaders attempted to ensure that there was decisive combat power at key points. Accordingly, this study will focus primarily on the initial operations in Western Europe.

The United States Army's experience in this period demonstrates that a combination of three factors was critical to making rapid task organization changes at the corps and army levels. First, during the interwar period, Regular Army officers established a common doctrinal foundation built through professional education and stable doctrine. The professional officers who served as trainers and cadre for the expanding army were able to draw upon both their experience and published manuals to train new units. Second, only the best officers commanded divisions, corps, and armies. General George C. Marshall, United States Army Chief of Staff throughout the war, personally led the process that ensured the selection of commanders and primary staff at the corps and division level who demonstrated character, leadership ability, and a firm grasp of Army doctrine. Finally, the army built an organizational structure designed to support rapid task organization. Reflecting upon their experience in the First World War and interwar years, returning leaders carefully planned the design of large units that would support operational employment of the concept of fire and maneuver.

One example of the flexibility and success this structure enabled is First Army's actions immediately following the success of Operation Cobra. In support of Operation Cobra, First Army tasked VII Corps as the main effort and accordingly allocated it the majority of the available divisions. On 5 August 1944, with Third Army racing eastward and First Army attempting to encircle German forces

around the city of Mortain, First Army Commander General Courtney Hodges met with his three corps commanders to discuss operations. As a result of the meeting, Hodges issued an order to clarify objectives, shift corps boundaries, and reshuffle divisions, including moving 30th Infantry Division to replace 1st Infantry Division protecting the city. By doing this, First Army was well-positioned to respond to a major German counterattack at Mortain on 7 August.

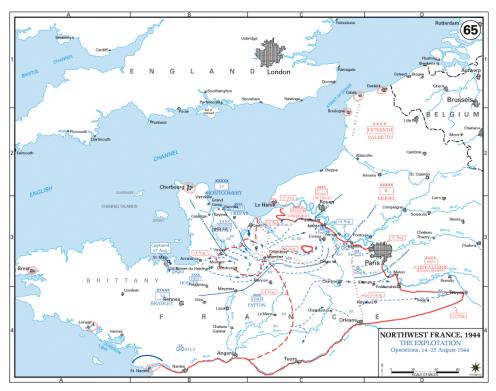


Figure 4: As the Allied armies shifted into pursuit, commanders allocated forces to maintain decisive combat power at key decisive points. Map courtesy of the USMA, Department of History.

Hodges again reorganized his corps on 9 August to better balance the divisions between corps, particularly because V Corps was only controlling one division while VII Corps still controlled the six divisions collected for Operation Cobra. After meeting with Bradley on 11 August, Hodges was directed to transfer 35th Division to Third Army to provide combat power for their offensive. The following day, in another conference with Bradley and the corps commanders, it was recognized that V Corps would shortly come up against the boundary between US and British forces.

He directed a major reorganization of units on 17 August. Instead of leaving V Corps idle along the Allied boundary, Hodges shifted the 2nd and 29th Infantry Divisions to XIX Corps. V Corps moved to Argentan in order to pick up the 80th

and 90th Infantry Divisions, strengthening the First Army flank with Third Army. The very next day, XIX Corps was also pinched out by the British boundary and Hodges moved the corps and its divisions to the headwaters of the Aure River to pick up 2nd Armored Division.

Another major reorganization was necessary as First Army prepared to occupy Paris and cross the Seine River. In yet another major commander conference on 21 August, Bradley and Hodges worked out the proper allocation of divisions for the operation, which occurred on 25 August. Hodges and Bradley felt comfortable making major boundary and task organization changes repeatedly in August, even in the midst of a German counterattack.²⁵

US senior commanders made these changes quickly and efficiently in the midst of intensive combat. When they and their subordinate commanders were able to combine common doctrine, superlative leadership, and effective organizational structure, the army as a whole gained the flexibility to respond to battlefield changes and exploit opportunities. This ability to respond to quickly-developing conditions was pivotal to Allied success in this period of northwest European campaign.

Notes

- 1. Robert L. Hewitt, *Work Horse of the Western Front: The Story of the 30th Infantry Division* (Washington, DC: Infantry Journal Press, 1946), 19–22; "30th Infantry Division After Action Reports," accessed October 28, 2012, http://www.oldhickory30th.com/index.htm.
 - 2. Hewitt, Work Horse of the Western Front, 25.
- 3. July 1944 G3 After Action Report, "30th Infantry Division After Action Reports," 12.
 - 4. July 1944 G3 After Action Report, 20.
 - 5. Hewitt, Work Horse of the Western Front, 33.
- 6. Hewitt, *Work Horse of the Western Front*, 48; Mark J. Reardon, *Victory at Mortain: Stopping Hitler's Panzer Counteroffensive* (Lawrence, KS: University Press of Kansas, 2002).
- 7. Peter R. Mansoor, *The GI Offensive in Europe: The Triumph of American Infantry Divisions, 1941-1945* (Lawrence, KS: University Press of Kansas, 1999); Hewitt, *Work Horse of the Western Front*, chap. VI; "30th Infantry Division After Action Reports."
- 8. 30th Infantry Division would serve under five different corps headquarters during the European Campaign, although nearly half of the time this was with XIX Corps. The division often served with 2nd Armored Division, which was also often associated with XIX Corps. Hewitt, *Work Horse of the Western Front*, 281.
- 9. S.L.A. Marshall, "S.L.A. Marshall Letter to MG Leland S. Hobbs," March 16, 1946, http://www.30thinfantry.org/marshall_letter.shtml.
- 10. Definition from Army Doctrine: task organization (Army) A temporary grouping of forces designed to accomplish a particular mission.(ADRP 5-0) and task-organizing The act of designing an operating force, support staff, or sustainment package of specific size and composition to meet a unique task or mission. (ADRP 3-0). *Operational Terms and Military Symbols (ADPR 1-02)*, Army Doctrinal Reference Publications 1-02 (Washington, DC: Department of the Army, 2012).
 - 11. See Appendix A for a listing of task organization changes during this period.
- 12. "General Board Report: Engineer Organization, Study Number 71" n.d., Records of the US Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 8, Eisenhower Presidential Library; "General Board Reports: Tactics, Employment, Techniques, Organization, and Equipment of Mechanized Cavalry Units, Study Number 49," n.d., Records of the US Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6, Eisenhower Presidential Library; "General Board Reports: Organization, Equipment, and Tactical Employment of Seperate Tank Battalions, Study Number 50," n.d., Records of the US Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6, Eisenhower Presidential Library; Fredrick H. Parkin, "Employment of the Tank Destroyer Battalion in an Infantry Division," March 12, 1945, N8281, Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- 13. For more information on the role of commanders in war: Martin Van Creveld, Command in War (Cambridge, MA: Harvard University Press, 1985); Carl H. Builder et al., Command Concepts: A Theory Derived From the Practice of Command and Control (Santa Monica, CA.: Rand, 1999); Army Leadership, Army Doctrinal Reference Publications 6-22 (Washington, DC: Department of the Army, 2012); Mission Command, Army Doctrinal Reference Publications 6-0 (Washington, DC: Department of the Army, 2012); Command and Staff Functions, Special Text No. 12 (Fort Riley, KS: Army General

- School, 1948); *Commander and Staff Guide*, Army Technical and Tactical Publication 5-0.1 (Washington, DC: Department of the Army, 2011).
- 14. For more information on the role of the modern staff: Command and Staff Functions, Special Text No. 12; Commander and Staff Guide; Mission Command.
- 15. Mark E. Grotelueschen, *The AEF Way of War: The American Army and Combat in World War I* (Cambridge: Cambridge University Press, 2010), 84–88, 234; *American Armies and Battlefields in Europe*, Center of Military History Publication 23-24 (Washington, DC: U.S. Government Printing Office, 1938); Kenneth E. Hamburger, "Learning Lessons in the American Expeditionary Forces," *CMH Publication 24-1* (Washington, DC: US Army Center of Military History, 1997).
- 16. Operations (Tentative) (1939), Field Manuals 100-5 (Washington, DC: War Department, 1939), 5; Operations (1941), Field Manuals 100-5 (Washington, DC: War Department, 1941); Operations (1944), Field Manuals 100-5 (Washington, DC: War Department, 1944); Field Service Regulation (Washington, DC: War Department, 1923).
- 17. For background on the decision to only field 90 divisions, see Maurice Matloff, "The 90 Division Gamble," in *Command Decisions*, ed. Kent Roberts Greenfield, United States Army in World War II, CMH Publication 70-7-1 (Washington, DC: US Army Center of Military History, 1987); R. Elberton Smith, *The Army and Economic Mobilization CMH Publication 1-7*, United States Army in World War II, Publication 1-7 (Washington, DC: US Army Center of Military History, 1959), 156; Mansoor, *The GI Offensive in Europe*; Russell F Weigley, *Eisenhower's Lieutenants: The Campaign of France and Germany, 1944-1945* (Bloomington, IN: Indiana University Press, 1990).
- 18. Appendix A to this study provides an analysis of each division and corps task organization changes between June 1944 and October 1944.
 - 19. Weigley, Eisenhower's Lieutenants, xv.
- 20. Carlo D'Este, *Decision in Normandy* (New York: Konecky & Konecky, 1994); Mansoor, *The GI Offensive in Europe*; David W. Jr. Hogan, *A Command Post at War: First Army Headquarters in Europe, 1943-1945*, United States Army in World War II, CMH Publication 70-60 (Washington, DC: US Army Center of Military History, 2000); Michael D. Doubler, *Closing with the Enemy: How GIs Fought the War in Europe, 1944-1945* (Lawrence, KS: University Press of Kansas, 1994); James Jay Carafano, *After D-Day: Operation Cobra and the Normandy Breakout* (Boulder, CO: Lynne Rienner Publishers, 2000); Edward G. Miller, *Nothing Less Than Full Victory: Americans at War in Europe, 1944-1945* (Annapolis, MD: Naval Institute Press, 2007).
- 21. Jörg Muth, Command Culture: Officer Education in the U.S. Army and the German Armed Forces, 1901-1940, and the Consequences for World War II, 1st ed. (Denton, TX: University of North Texas Press, 2011), 7; William O. Odom, After the Trenches: The Transformation of U.S. Army Doctrine, 1918-1939, 1st ed., Texas A & M University Military History Series 64 (College Station, TX: Texas A&M University Press, 1999).
- 22. Peter J. Schifferle, America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II (Lawrence, KS: University Press of Kansas, 2010); Michael R. Matheny, Carrying the War to the Enemy: American Operational Art to 1945 (Norman, OK: University of Oklahoma Press, 2011); Stephen R. Taaffe, Marshall and His Generals: U.S. Army Commanders in World War II, Modern War Studies (Lawrence, KS: University Press of Kansas, 2011); Steven Thomas Barry, Battalion Commanders at War: U.S. Army Tactical Leadership in the Mediterranean Theater, 1942-1943, Modern War Studies (Lawrence, KS: University Press of Kansas, 2013); Stephen

- D. Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton, NJ: Princeton University Press, 2004).
- 23. Omar N. Bradley, *A Soldier's Story* (Toronto: Random House, 1951); Carlo D'Este, *Patton: A Genius for War* (New York: Harper Perennial, 1995); George S. Patton and Paul D. Harkins, *War as I Knew It* (Boston, MA: Houghton Mifflin Co., 1995); J. Lawton Collins, *Lightning Joe: An Autobiography* (Novato, CA: Presidio Press, 1994); H. Paul Jeffers, *Taking Command: General J. Lawton Collins from Guadalcanal to Utah Beach and Victory in Europe* (New York: New American Library, 2009); P.N. Kaune, "General Troy H. Middleton: Steadfast in Command" (DTIC Document, 2011); Frank James Price, *Troy H. Middleton: A Biography* (Baton Rouge, LA: Louisiana State University Press, 1974).
- 24. There are many excellent books which cover the lessons learned by early operations in the North African, Sicily, and Italian campaigns. Rick Atkinson, An Army at Dawn: The War in North Africa, 1942-1943, 1st ed., The Liberation Trilogy, v. 1 (New York: Henry Holt & Co., 2002); Rick Atkinson, The Day of Battle: The War in Sicily and Italy, 1943-1944, 1st ed., The Liberation Trilogy, v. 2 (New York: Henry Holt, 2007); Rick Atkinson, The Guns at Last Light: The War in Western Europe, 1944-1945, 1st ed., The Liberation Trilogy, v. 3 (New York: Henry Holt and Co., 2013); John Keegan, The Second World War (New York: Penguin Books, 1990); Paul A. C. Koistinen, Planning War, Pursuing Peace: The Political Economy of American Warfare, 1920-1939, Modern War Studies (Lawrence, KS: University Press of Kansas, 1998); Paul A. C. Koistinen, Arsenal of World War II: The Political Economy of American Warfare, 1940-1945, Modern War Studies (Lawrence, KS: University Press of Kansas, 2004); M. Hamlin Cannon, Levte: The Return To The Philippines, United States Army in World War II, CMH 5-9-1 (Washington, DC: US Army Center of Military History, 1993); Albert N. Garland, Howard McGaw Smyth, and Martin Blumenson, Sicily and the Surrender of Italy, United States Army in World War II, CMH 6-2-1 (Washington, DC: US Army Center of Military History, 1993).
- 25. "First Army After Actions Reports August to October 1944," n.d., 37–42, Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 28), Eisenhower Presidential Library; Courtney H. Hodges, "First Army War Diary Maintained by His Aides," n.d., Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 25), Eisenhower Presidential Library.

Chapter 2 Doctrinal Understanding

The doctrinal foundation of the Army relied upon the interaction between a strong school system that drove doctrine, a way of war that encouraged initiative through mission-type orders, and doctrinal concepts that remained stable over two decades. One common refrain from senior Army leaders in interviews, memoirs, and reflective speeches was that the interwar schooling system was critical to their success in World War II.¹

The interwar period was a trying time for the United States military. All services suffered severe budget constraints driven by a national desire to avoid international entanglements and a belief that the First World War had been so horrible that states would avoid major conflict in the future. The economic crisis of the Great Depression, which only ended with the decision to mobilize the nation to prepare for war in 1940, compounded the long-standing national resistance to a large standing army. This period forced the small enduring professional officer corps to reflect upon the lessons of the previous conflict in order to develop a common understanding of how to conduct future operations. These officers developed concepts that intentionally diverged from European armies, validated those ideas in classroom exercises, and eventually formally adopted them in the form of doctrinal publications.

The Regular Army from this interwar period served as a cadre for newly activated units, organized special schools, and effectively spread the common doctrinal framework to the expanding army.² One of the key reasons they were successful in employing large unit organizations was the school system and the supporting doctrine they developed. The school system achieved doctrinal understanding among the small officer corps by identifying and developing high quality officers, institutionalizing the concept of mission-type orders that provided flexibility, and maintaining stable doctrinal concepts that proved effective in combat. These factors provided the Army with leaders operating under a common understanding during the war, which was an important prerequisite for enabling the flexible task organization evident during the 1944 campaign in France.

The Army Schooling System

During the interwar years, the school system was the center of the Army's intellectual and professional development. As noted earlier, the end of the First World War brought deep cuts to military budgets and personnel.³ Without large standing units, money to conduct force-on-force exercises, or active combat action, officers preparing for the next conflict were forced to rely upon the school environment to develop and test ideas. Training, education, and doctrine development became the primary focus for much of the Army. In 1929, nearly half of the regular infantry captains and field grade officers were serving as either instructors

or students somewhere in the school system, a state of affairs reflective of the entire interwar period.⁴ In schools, the institution had free rein to teach the science and art of combined arms warfare, develop new concepts, and most importantly, identify those exceptional officers upon whom the nation could rely when the call came. General John J. Pershing, Commander of the American Expeditionary Forces in the First World War and later Army Chief of Staff, recognized in 1923:

In no other army is it so imperative that the officers of the permanent establishment be highly perfected specialists, prepared to serve as instructors and leaders for the citizen forces which are to fight our wars.⁵

The school system became the method to identify and develop the most qualified officers for service in future wars. The general officers who lead the 30th Infantry Division in combat reflected the typical experience of interwar period officers. Three of the four graduated from West Point, served as Regular Army officers throughout the interwar period, attended branch schools, and graduated from the Command and General Staff College at Fort Leavenworth. The exception is Major General Raymond McLain, a National Guard officer who followed a unique path which did, however, include attendance at the National Guard version of the Command and General Staff College at Fort Leavenworth. At least three of the six regimental commanders who served in combat with the division were Regular Army officers and Leavenworth graduates.

The War Department designed the school system to prepare the best-qualified officers for higher-level command. In response to the shortcoming identified by the Spanish American War, Secretary of War Elihu Root directed a series of wide ranging reforms, including investments in the Army school system. Immediately following the First World War cease-fire, the Army established a board to provide recommendations based upon combat lessons for the Army School System. Led by the former commandant of the Fires School and future commandant of the Army War College, Major General Edward F. McGlachlin, the board published the "Report of Board of Officers Re-Study of Army School System," or the McGlachlin Report, in 1922. This report drove the structure of the school system, including missions and roles for each level, student evaluations, tour length, and interval between courses. Driven by the Elihu Root reforms and the McGlachlin report, the school system served a vital role in the professionalization of the entire officer corps.⁶ Early career courses focused on training basic branch skills progressing towards an education focused on combined arms warfare for senior officers. The United States Military Academy (West Point) provided most cadets their initial officer education, although many received commissions through Reserve Officer Training Corps Courses at participating universities.

Officer education in the 19th century had been far less systematic. Each Army post or garrison ran its own school, providing new officers with on-the-job training in basic skills. The closing of the frontier in the 1880s signaled a shift in the concept of professionalism in the army, recognized in the desire for more advanced

and centralized technical skills training. The first effort was the School of Infantry and Cavalry at Fort Leavenworth, but other branches quickly followed, with a mounted school at Fort Riley and the School of Fire for Field Artillery at Fort Sill. These schools would develop into specialized courses for lieutenants and captains, and quickly expanded to include the Infantry School, the Engineer School of Application, the School of Antisubmarine Defense, the School of Application for Cavalry and Field Artillery, and the Army Medical School.



Figure 5: School of Infantry and Cavalry was one of the earliest Army schools, and would evolve into the Command and General Staff College. Picture of the 1885 Class. Image courtesy of US National Archives.

With the proliferation of branch-specific schools, the School of Infantry and Cavalry transformed into an intermediate course called at various times the School of the Line, General Service and Staff College, and eventually the Command and General Staff School. This Leavenworth school taught select majors and senior captains the art and science of combined arms warfare to prepare them as cadre for regiments and divisions when the peacetime army expanded in time of war. From 1919 to 1922 and again from 1929 to 1935, Leavenworth ran a second-year course for selected officers expanding the instruction to corps and army level staff.⁷ In 1901, the War Department established the Army War College in Washington,

DC as the senior post-graduate education program in the Army. The War College prepared leaders to serve on the War Department General Staff and to lead army and larger organizations.

As officers progressed through the school system, attendance became more selective, performance expectations increased, and the instruction emphasized education rather than training.⁸ The lessons of the First World War very much influenced the curriculum of the Army schools at every level during the interwar period. All of the initial post-war instructors were combat veterans, who consciously sought to pass on the important lessons from their experience.⁹ Each level of the school system contributed to building the common understanding and doctrinal foundation that enabled task organizational flexibility in World War II.

The branch schools provided junior officers standardized instruction in their specific technical and tactical skill set. ¹⁰ Growing out of the realization that branch specific skills were necessary to support combined arms fire and maneuver operations, each branch was responsible for developing its own schools. Some turned to Europe for models. Captain Dan T. Moore, an artilleryman, visited a number of European artillery schools in 1908 and developed the first Field Artillery Course at Fort Sill based upon the German methods he observed. ¹¹ As noted earlier, branch chiefs established schools for cavalry, infantry, engineers, coastal artillery, medical, aviation, and other specialty branches. ¹²

Each of these schools focused on teaching through practical application, with hands-on exercises and field exercises when possible. Lieutenant General J. Lawton Collins, a future World War II corps commander and postwar Army Chief of Staff, reflected that while he was on the staff at the Infantry School, students thrived in an "innovative, experimental, testing-and-proving atmosphere." General Marshall served as Deputy Commandant of the Infantry School from 1927 to 1932 and led a revolution in the instructional style and tactical concepts. Based upon his First World War experience, he focused instruction on the importance of firepower and maneuver. Recognizing the reality that the Army would have to expand quickly in time of war, he sought to "develop a technique and methods so simple and so brief that the citizen officer of good common sense can readily grasp the idea." This simplicity was important to counter the rigidity of orders he found stifling during his experience in the First World War and China.

Students faced challenging practical exercises, in which the faculty encouraged the use of initiative instead of blind obedience to published orders. ¹⁶ At the School of Fire for Field Artillery, the faculty led by Captain Moore, "set out to teach officers by actual practical exercise . . . the general principals [sic] in conducting fire. . . [and] the tactical employment of field artillery, with a clear emphasis on gunnery." These schools also developed new procedures and techniques. For example, the Field Artillery faculty developed the concept of fire direction centers and procedures for the use of a firing chart to mass fires. ¹⁸ All of these schools reinforced the combined arms concept, teaching the basics to those officers

who formed the core of the World War II commanders and staffs. The technical skills, tactical experience, and new techniques developed in the branch schools would form the basis upon which further education built common understanding.

Attendance at the Command and General Staff School was one of the few ways for an officer to distinguish himself during the interwar years, and competition among students was fierce. Branch chiefs, typically the senior general officer in each branch, selected only their best officers for attendance based upon a review of their efficiency reports and reputation. US Army Chief of Staff General Pershing closely monitored the selection process to enforce high standards across branches. Famously, General Dwight D. Eisenhower, unable to secure a slot through the infantry branch, accepted a temporary assignment to the Adjutant General Corps to receive that branch's opening. 19 Competition while in school was also critical. A student's class ranking determined their follow-on assignments, placement on the highly-coveted General Staff Eligible List, and most importantly, identified top performers to senior leaders.

An analysis of the World War II senior leaders supports this conclusion. Of the thirty-four corps commanders in World War II, thirteen were honor graduates or at the top of their class, while only two graduated in the bottom half of the class.²⁰ A study of twenty-five randomly selected division commanders identified the importance of attendance at Command and General Staff School; all completed the resident course and 36 percent were selected to attend the second year as well.²¹ By the summer of 1944, the graduates of the Command and General Staff School served in key staff billets in armies, corps, and divisions in both theaters. Graduates of both Command and General Staff School and the Army War College dominated General Omar Bradley's First Army staff.²²

At the corps level, the majority of primary staff officers were graduates, while in divisions typically the chief of staff and G3 were graduates.²³ For example, the 30th Infantry Division commander, assistant division commander, division artillery commander, and at least two of its six regimental commanders were graduates.²⁴ Commanders sought Leavenworth graduates because they understood combined arms doctrine, possessed problem solving skills, and demonstrated capability as staff officers – all attributes that became even more critical in a fluid combat environment with constantly changing command relationships.

The Command and General Staff School had the mission to prepare officers for duty at the division and corps level by training combined arms tactics, responsibility of the commander, and functions of the general staff. During the years when the course included a second year option, the expanded curriculum increased the focus on large unit operations and logistics. A time for serious reflection upon their profession, the course included exercises, staff rides, lectures, and individual research.

Picking up a trend started before the First World War, the school's faculty chose to use the applicatory method as the primary means of instruction. The applicatory method used problem-solving exercises to challenge individuals and groups

against an approved school solution. The heart and soul of the entire course was the map exercises, conducted three or four times a week and requiring students to spend four hours at a time solving various military problems. While extremely stressful during class, the result was increased confidence in each student's ability to solve problems using the same method and achieving similar results to every other student.²⁵ With high-quality faculty providing feedback and standardization, these exercises were the experience that stuck with nearly every student. One of those faculty members was then Major Troy H. Middleton, a future corps commander. Reflecting on his time grading these exercises, Middleton recalled:

I gave some students a better grade when they made a wrong decision but wrote better reasons for the decision and for the execution of it – better than I gave those who came up with 'right' decisions and poor execution. We put the emphasis on logic – and the punch behind it.²⁶

Publishing individual and group research projects was also an important part of setting individuals apart. In the six-year period between 1930 and 1936, Command and General Staff College students published at least 943 papers.²⁷ Leland Hobbs, who completed the two-year version of the course in 1932-1934, published an individual research paper that examined the role of fast tank units in future conflicts, and introduced concepts that he would aptly apply in combat ten years later.²⁸ The tie between school's practical exercises and actual combat during World War II proved to be strong. One example of this connection is the First Army's After Actions Report from April 1945, in which the staff discussion of orders production stated,

Yet it does seem appropriate in this report to point out that in this particular, the imaginative and still utterly practical teachings of our schools have been proven on one of the most critical battlefields in the greatest war the world has seen.²⁹

The school experience was so influential that when the First Army staff first deviated from the Command and General Staff College solution for listing unit locations in the operations summaries, they gave an extensive explanation on why their particular situation required changing the standard.³⁰

The applicatory method proved so successful it spread to the Army's branch schools and the War College during the interwar years, typically through graduates of Leavenworth serving on the faculty. As a result, student officers at all levels used the same problem-solving method and became comfortable with defending their solutions using the specifics of a given problem. With all the key leaders working from a common experience, commanders could trust subordinates to execute within their intent even with insufficient time to build personal relationships. The Leavenworth experience set a powerful example for commanders and staffs, one that provided a common understanding that facilitated coordination during operations.

The Army War College was the pinnacle of military education. With only the best students from the Command and General Staff School moving on to the War College, the focus shifted from competitive academics to interaction between the students and instructors facilitating an exchange of ideas.³¹ Because attendance promised service on the General Staff or other senior level command, the course was highly desired.³² As an example of the quality of students, every future World War II army group and army commander and twenty-nine of the thirty-four corps commanders were graduates.³³ Those selected for the War College found continuity from previous schools with a shift towards army and above operations, albeit a different type of academic atmosphere.³⁴ Lecture topics covered nearly every staff function at the army and theater of operations level, including intelligence, operations, administration, logistics, hospitalization, engineer functions, and signal communications.³⁵



Figure 6: Army War College Class of 1925. Created specifically to educate officers with the greatest potential for service at the national level, most division and higher commanders were graduates of the inter-war Army War College. Image courtesy of US National Archives.

However, the focus was not staff training. The War College educated students on the art of command and complexity of theater-level operations.³⁶ The faculty presented exercises designed around actual war plans, supporting the War Department's War Plans Division with serious analysis. Instead of a series of short map exercises like at Leavenworth, War College students typically examined one major war plan per year in detail, from mobilization to campaign design. The students examined more than Army-level problems. Where the Command and General Staff

School focused on combined arms fire and maneuver, the War College focused on national-level lessons from the First World War. The faculty recognized the importance of national mobilization, trained staffs, and the integration of new specialties (including aviation, chemical warfare, and finance). Each school year culminated with large war games and field exercises to test the detailed plans developed by the students.³⁷ Many would face similar problems later as generals in combat. Working in harness, this system of schools from pre-commissioning to senior level indoctrinated carefully selected officers with the concepts of combined arms warfare, staff functions, and command responsibilities.

Just as important as attending as students, officers also sought time as instructors in one of the Army's schools. Possibly the most famous are those who served under Marshall at the Infantry School at Fort Benning, as many future senior leaders first showed up in Marshall's black book or "wicked memory" while he was deputy commandant.³⁸ Historian Forrest Pogue identified one hundred and fifty students and another fifty instructors during Marshall's time at Benning who became World War II generals.³⁹ In the interwar Army, service as an instructor enhanced an officer's career. A statistical analysis of World War II division commanders shows the majority of officers spent between 48 and 108 months as either faculty or students, averaging at least as much time in the school system as with troops.⁴⁰

Service as an instructor ranked very high in possible assignments throughout the interwar years, especially at the War College or Command and General Staff School. Instructor status was a mark of the officer's demonstrated performance and an opportunity for him to enhance his knowledge, and the selection process was competitive. Unlike the system in place now that separates doctrine development from instruction, during the interwar period the faculty developed and wrote the initial doctrinal manuals as student texts, validated and refined the concepts in the classroom, then forwarded them for publication by the War Department. The school system attracted the most respected officers as instructors, provided time for personal development, and ensured students had strong role models.

The final role for the Army school system would play out after the decision to expand the army and close the traditional schools. In 1940, the War Department closed down the Command and General Staff College and Army War College to release the officer students for service as cadre officers in the newly-activated divisions. Graduates played a major role as the knowledge base for the growing army, with most of them serving as commanders or senior staff officers. The faculty of the Command and General Staff College supported mobilization efforts by rewriting doctrine, teaching short courses, and training new division staffs. Marshall charged the faculty with updating the doctrine, resulting in a number of manuals published between 1939 and 1941. In order to increase the number of qualified staff officers, the faculty started an eighteen-week version of the staff school, which eventually graduated 1,080 officers in five and a half years. In October 1940, General Marshall made the decision to bring National Guard division staffs

onto active duty a month earlier than the rest of the division and send them to Fort Leavenworth for specialized and collective training.⁴⁵

Starting in 1942, the "New Divisions Course" would ultimately train the division commanders and staff of 45 of the total 89 mobilized divisions, focusing on building the command team and instilling the staff with the doctrine and methods developed during the interwar years. 46 While mobilization turbulence and the effects of the cascading cadre system would dilute much of the collective value gained from this course, it was in the end a successful effort to address the problem of creating so many new organizations from scratch. Many of the division commanders who participated in this training would later go on to command larger units, including Omar Bradley, H. Terrell Jr., and Robert L. Eichelberger. 47 As one of the first National Guard divisions activated, the 30th Infantry Division did not participate in this training, but many later divisions would benefit in an effort to smooth the transition to active service. 48 The faculty at Fort Leavenworth played a major role in the mobilization effort and preparedness of many division staffs for combat.

The Army school system was a critical element in preparing the nation for war and maintaining flexibility in combat. The graduated structure provided multiple opportunities to evaluate students and select the most qualified for the next level. Branch schools generated the technical and tactical skills required to transform citizens into officers. Fort Leavenworth produced high quality staff officers who could solve combined arms problems using a standard method. The Army War College identified the brightest officers and prepared them for service as large unit commanders and national leaders. During mobilization, the faculties supported the expansion by helping build new unit systems.

Most important might be what the system provided as a whole. It built a common doctrinal foundation based upon the lessons from the First World War, deepened the experience through the applicatory method, and ultimately transferred this knowledge to the expanding army through both the cadre system and wartime courses. Its provision of a common understanding facilitated the efforts of officers to operate in a rapidly changing and challenging environment. Subordinates and superiors approached and solved problems using the methods taught at Leavenworth and elsewhere. Without this common frame of reference, shared vocabulary, and standardized problem-solving system, commanders and their staff would have to learn how to translate back and forth for each change in task organization. One of the most critical concepts learned in the school system may well have been its advocacy of simple mission type orders.

Mission-Type Orders and Five-Paragraph Format

The First World War proved to be a break in American military thought process from European emulation. Before the war, Army officers studied European armies and mimicked their organizational concepts despite America's very different experience along isolated frontiers and with citizen armies in the Revolutionary War,

the War of 1812, and Civil War. Americans returned from Europe convinced that British, French, and German tactical concepts were the root cause of trench warfare, which was incompatible with American values. 49 Much like the system adopted by the German army, the Americans developed a belief that commanders must have maximum flexibility and initiative to accomplish missions, which would enable greater flexibility and responsiveness to changing conditions on the battle-field. 50 The Army worked to codify this concept in doctrine, developed equipment to support it, and selected officers able to execute it. Short, clear, mission-type orders empowered subordinates by enabling units to respond quickly without the delay necessary for a higher-level staff to develop detailed orders. This allowed subordinates the ability to take advantage of developing situations on the ground without disrupting carefully scripted operations. Short orders were also easy to transmit over limited communications networks, further speeding the action on the ground and avoiding confusion from misunderstanding complex detailed orders.

Military doctrinal concepts are translated into battlefield action through operations orders. The concept of mission-type orders dominated the American way of warfare going into World War II. The underlying philosophy of this concept was that simple, direct plans with an offensive purpose executed promptly would prove decisive in combat.⁵¹ In 1906, Major Eben Swift, assistant commandant of the United States Army Command and General Staff College, wrote a manual adopted by the War Department that outlined specific formats for orders, messages, and reports, including the five-paragraph operations order which is still in use today. Through a process of evaluating the history of written orders from the Napoleonic Wars, American Civil War, and Franco-Prussian War, Swift argued for the necessity of a clear, concise, standard format order that would reduce confusion on the battlefield and better synchronize combat power.⁵² In discussing the value of detailed versus general orders, he recommended that instead of the prescriptive orders written by Napoleon, which relied upon a commander possessing extraordinary foresight on how a battle will develop, orders should "point out only the object to be gained, leaving the method to the judgment of those who are charged with the execution."53 Additionally, all objectives articulated in the order were to "be brief, in short sentences, and clearly expressed."54

These concepts were enshrined over the next thirty years in both the practical exercises in school and the staff manuals. *Field Manual 100-5, Operations (1941)* espoused mission type orders, focused on what, not how, subordinate commanders were to execute. Orders were to include everything subordinate commanders needed to know and nothing more. *Field Manual 101-5, Staff Officers Field Manual (1940)* warned staffs to avoid excessive details and prescriptive methods, preferring concise orders that allow subordinate units to execute in concert. It did recognize that the level of detail needed would vary based upon the training and competence level of subordinate units, with less detail necessary as the unit gained experience. Enabling initiative remained paramount. Commanders operated within their higher headquarters intent, with or without direction or confirmation

of their plans. To further simplify and shorten orders, commanders were encouraged to implement standard operating procedures.⁵⁷

All of this decentralization would seem to make it more difficult for units to change task organization. However, the doctrine provided the framework to combine a common understanding of problem solving with standardized formats for orders and reporting. Essentially a standard operating procedure for the entire United States Army, *Field Manual 100-5 Staff Officers Field Manual* was the common reference for staff procedures. Units could expect to receive operational guidance in the same format, regardless of who issued that guidance. Without this common standard, task organization changes would create unacceptable turmoil as commanders adjusted to changing order methodology while staffs constantly relearned reporting and staff processes with each new higher headquarters. Instead, the Army went into World War II with a system that enabled commanders to execute mission-type orders with a great deal of initiative. With simple mission-type orders and standardized staff procedures, they could be flexible in the task organization to meet mission requirements.

The lessons and doctrine from Leavenworth followed students as they started training units and deploying to Europe. Lieutenant General Leslie McNair led the November 1941 force-on-force Louisiana Maneuvers, an exercise in which the 30th Infantry Division participated, which he designed to test doctrinal and organizational concepts. His comments reflect how these large-scale training events reinforced doctrinal concepts. He notes a large percentage of the field orders issued were clear, concise, and effective; however, a few were excessively long, too detailed, or failed to follow the prescribed format.⁵⁹ McNair's focus on the quality of the orders reflects the effective indoctrination of not only the senior leaders, but also the entire officer corps. Each of the three wartime corps-level standard operating procedures reviewed conformed and supported the doctrinal concept of mission-type orders. They each specifically detailed the responsibilities of staff sections to construct the base order, relegating details on administrative and logistics tasks to separate, less frequently published administrative orders. ⁶⁰ A review of the operations orders used in the European Theater of Operations shows that the basic concepts from doctrine survived and thrived in combat. The 30th Infantry Division often worked for XIX Corps, whose standard operating procedures' stated purpose was to "promote understanding and teamwork between commanders, staffs, and all units; to simplify and abbreviate combat orders, expedite their transmission and execution and minimize confusion and errors."61

As a further example, the 4th Infantry Division operations orders from June through August of 1944 all follow the simple five-paragraph format and are extremely concise. Rarely do any of this headquarters' orders exceed two pages in length, yet the tasks for each of the subordinate elements provides tactical task, line of operation, and objectives. Each order includes a paragraph for each subordinate unit, an intelligence summary, specific coordinating instructions, and location of command posts, with little else. A typical order from 18 June 1944,

directs the 8th Infantry Regiment, with attached chemical battalion, to: "attack to the northeast making main effort on its right and seize the high ground vicinity TANERVILLE – see overlay. Be prepared to advance on division order." The lessons learned by graduates in Command and General Staff School and Army War College classrooms writing mission-type orders became the guide for combat operations because graduates were able to leverage their common experience to establish trust, which enabled a culture of flexibility and initiative.

Commanders used simple mission-type orders, knowing their subordinate could execute with flexibility and initiative in line with the intended outcome. Making the orders simple and concise greatly reduced the time required to receive information, determine the proper response, and issue the appropriate orders to execute. Encouraging initiative further quickened the cycle, allowing commanders the freedom to execute without requiring concurrence from a remote headquarters during tactical engagements. Standard operating procedures guided the staff on the formats and processes required to keep a large mechanized force operational. As each of the units based their procedures on the experiences and doctrine from Fort Leavenworth, new units integrated easily. The American philosophy of mission-type orders enabled flexible task organization. Importantly, these mission-type orders relied upon a deep and stable doctrinal base in combined arms maneuver, fire support, sustainment, and other support functions.

Stability in Concepts

A solid school system and a command system based on decentralized initiative contributed to common understanding, but doctrine would also have to provide the operational foundation no longer detailed in orders. Without a set of stable doctrinal concepts, it would be impossible for units to conduct operations together on short notice. The schooling system taught, and command philosophy relied upon, a few key concepts that every leader needed to understand: combined arms teams, maneuver, massed fires, higher-to-lower communications, and flexible logistics. These concepts were all rooted in the experiences of and lessons learned in the First World War. As we have seen, the senior officers of the American Expeditionary Forces deliberately collected lessons learned and injected them into the school system. Once in the school system, these lessons were refined into doctrine that remained fundamentally stable for 25 years. This section will examine the origins, development, and ultimate test of these concepts in combat.

The process of gathering lessons learned began before the first US units arrived in Europe for World War I. American officers embedded as observers in the Allied armies collected lessons on trench warfare before the first units mobilized. It was clear that the American Army, built through rapid expansion, was not well-prepared, particularly at the junior officer and NCO level, for this new form of combat. A Right from the start, General John J. Pershing, Commander of the American Expeditionary Force, was intent on preparing his forces for maneuver warfare to break the deadlock of trench warfare.

with equal vigor, publishing a report from the first American contact in pamphlet format in less than two weeks and distributing it to all the units in training.⁶⁵ The American Expeditionary Forces set a process for analyzing what happened and how to learn from it, issuing two general orders specifying format and content for every unit report and history in order to capture lessons learned.⁶⁶ In 1917, Lieutenant General Hugh Drum established a staff school in France modeled after the pre-war Leavenworth school and staffed by proven combat officers. This school provided officers with concrete lessons for the combat they would immediately face. By November 1918, the American concept of fire and maneuver was realized and showed success – or possibly more importantly, potential – in the Meuse-Argonne offensive.⁶⁷

The sudden and unanticipated end to the First World War created an enormous opportunity. Without the ability to demobilize the American Expeditionary Forces until a formal peace treaty was signed, General Pershing had to find something to occupy his army's time. Leaders organized sporting events and competitions like the military Olympics for the soldiers.⁶⁸ General Pershing also organized boards of officers to examine performance in combat and make recommendations on education, doctrine, and organization for the Army. Major General James McAndrew and Major General Edward F. McGlachlin led the effort to reestablish the General Staff College and General Services Schools. They convened a series of boards and meetings during the United States Army's occupation of Coblenz in Germany to select staff, develop material, and lay the foundation for the doctrine that would develop over the next thirty years.⁶⁹ The most important of these, the Superior Board on Organization and Tactics, issued its final report in June 1920. Between official reports, boards, and personal memoirs, the veterans of the First World War made a concerted effort to capture their experience with the specific intent of preparing for the next war many of them thought inevitable.⁷⁰

Composed of three major generals, two brigadier generals, and two colonels, the Superior Board was responsible for consolidating reports of all the arms and services into one overall study on organization and tactics. The observations captured in this report drove the United States Army officer corps' understanding of warfare for the next three decades. One fundamental conclusion was that the infantry was the decisive arm which all other services support. The Superior Board Report also outlined, in some detail, the structure recommended for field armies, corps, and divisions. With the division as the basic fighting unit, board members believed it must be as self-sufficient as possible. The corps was viewed as a tactical command, responsible for employing up to four divisions at a time. Field armies were fighting forces, responsible for enabling the divisions. The board concluded,

Divisions cannot be permanently assigned to a Corps. The tactical situation or requirements of logistics are almost certain to require that a division once withdrawn be sent into the fight again in a new area under a new Corps staff.⁷²

The artillery section highlighted how massed fires supported the maneuver of infantry forces, and the importance of coordination and training in enabling maneuver. The report recommended the assignment of independent artillery units to division, corps, and armies to foster integrated training while maintaining the ability to mass fires when required. The board recognized the effectiveness of armor forces in supporting the morale of friendly infantry forces and negatively affecting the enemy's morale, but did not fully anticipate the future role armor would play. The First World War highlighted the critical role of engineers on the modern battlefield. The board recommended assigning general-purpose engineers to combat units to improve coordination and training, while centralizing special purpose engineers at higher levels. Poor performance also generated recommendations. The report acknowledged the technological, manning, and organizational problems that prevented the Signal Corps from enabling any headquarters with mobility. The board recommended assigning higher headquarters the responsibility to install communications to subordinate headquarters. The fundamental lesson of the First World War learned by the United States Army was that only the combined application of fire and maneuver would restore mobility to the battlefield, requiring a serious effort to design, train, lead, and organize the future force for this type of battlefield. 73

As the American Expeditionary Forces demobilized and units returned to the United States, the new center of gravity for intellectual thought and Army doctrine became Fort Leavenworth. Veterans led the effort to translate the lessons learned into classroom instruction, student texts, and official doctrine. The veterans made up the initial faculty at every school, and they immediately integrated the lessons learned into the curriculum. In 1923, the faculty at Fort Leavenworth released *Field Service Regulations*, the Army's only doctrinal publication. The 1923 *Field Service Regulation* was a capstone manual, covering not only the broad concepts listed above, but also detailed diagrams on movement of supplies, formats for orders, combat tactics for river crossings, and a hundred and ninety-five other pages of detailed text. Throughout the interwar period, the faculty at both the Command and General Staff College and War College developed student guides for classes, which drew upon the Field Service Regulations but provided additional details and concepts refined in the classroom.

With war looming, General Marshall directed the Leavenworth faculty to update and publish a more extensive set of doctrinal manuals. The Leavenworth faculty responded in 1939, using concepts tested in classrooms and lecture halls with three new publications: *FM 100-5 Tentative Field Service Regulations, Operations; FM 100-10 Field Service Regulation, Administration*; and *FM 100-15 Field Service Regulations, Larger Units.* The General Staff removed "tentative" from the title and officially published a slightly updated *Operations* field manual in 1941, with a further revision released in June 1944. Each version refined the older manuals, echoing the lessons taught in the school system. While chapters were added, reordered, and modified to reflect changes in technology, the base concepts

of how to command American units remained consistent.⁷⁵ Combined with *Field Manual 101-5 Staff Officers Field Manual*, published in 1940, and a revised *Field Manual 100-15, Larger Units*, published in 1942, the base for how American units would operate was set. Where the *Operations* manual described how units would fight, the *Staff Officers Field Manual* provided specifics on orders development and staff formats.⁷⁶

The War Department updated these manuals throughout the war, with the latest release published on 15 June 1944, days after the Normandy landing. Although these updates did much to clarify and incorporate combat lessons, the fundamental concepts remained consistent.⁷⁷ Additional branch-specific manuals provided details and procedures appropriate to their technical specialties. In total, these doctrinal manuals provided detailed guidance while remaining true to 25 years of instruction.

The introduction to the 1923 *Field Service Regulation* made it clear that combined arms action was the way the Army would fight.⁷⁸ Subsequent field manuals maintained the centrality of this concept, reinforcing that no one army wins a battle and the successful integration of each arm of service was the key to victory. There was also consistency in the role of the infantry division as the basic combined arms unit and the roles of army groups, armies, and corps in administrative and tactical employment.⁷⁹ In fact, throughout each of the four versions, the basic principles of offensive focus, decisive combat, combined arms, importance of command, role of security, and reconnaissance remained virtually identical.

The 1923 Field Service Regulation attempted to be comprehensive, while later versions reflected the creation of supporting manuals, shifting details, and allowing the concepts to be further developed. The chapters changed order throughout the years, possibly reflecting changing priorities, but the content and wording of the majority of the document remained consistent. Those items that shifted into other doctrinal manuals in the 1940s also remain recognizable from the original version. Field Manual 101-5 Staff Officers Field Manual presented the same five-paragraph orders format and development process, although the level of detail has expanded.⁸⁰ The field artillery discussion in both the 1923 Field Service Regulations and the 1944 Field Manual 6-20 Field Artillery Tactical Employment reflected the same concepts of mass and flexibility, with the refinements from Fort Sill enabling better application.⁸¹ The principles of administration and transportation in the 1923 Field Service Regulations, retained in the Quartermaster Operations Field Manual, were evident in the concept of support employed in the European Theater of Operations, with an emphasis on flexibility and support to the front lines through a robust support system. 82 Even the signal section, despite technological advances, maintains the basics concept of higher to lower installation and axes of communications.⁸³ Despite changing technology and pressures from early German successes, the American Army entered World War II on a foundation of 25 years of stable military doctrine imparted to every officer by the school system.

Because lessons learned from the First World War drove development of concepts, the emerging doctrine failed to anticipate or solve a few significant problems. The first was the role of the airplane. While veterans recognized the airplane was a significant new technology, advocates of airpower and ground combat leaders contested the role it should play. Airpower supporters advocated that it was a radically innovative technology which would completely alter war by allowing deep strategic strikes against the industrial, economic, or morale strength of the enemy. Ground leaders adamantly defended the preeminence of the infantryman and wanted the airplane to focus on direct ground support. Because of this disagreement, the tactics and techniques required for these two arms to cooperate effectively would not emerge during the interwar period.⁸⁴

Another innovation would suffer a similar fate – the tank. An immature technology during the First World War, the mobility and firepower of the tank grew exponentially during the interwar period. While some during the interwar period, like George S. Patton, believed that armored vehicles should form a separate arm on the battlefield that would exploit the tank's mobility and firepower, Army doctrine ultimately gave the tank a limited role in supporting the infantry. In good part due to budget constraints, the Army held very few infantry-armor exercises and no one identified the communications and training problems that emerged. The faculty developing the organizational structure in the interwar years also tended to underestimate the size of staffs or amount of support vehicles required to maintain fast moving armor columns. Considering the lack of experience with these problems in combat and significant resource constraints during the interwar years, it is understandable that the doctrine was incomplete in some areas.

Despite the intervening technological developments, school lectures and exercises, and feedback from the ongoing war in Europe, the basic concepts identified by the Superior Board remained consistent in doctrine. The doctrine improved specificity, clarity, and breadth, mostly through the feedback of the school system. An officer going through Command and General Staff School in 1921 and an officer attending the short course in 1940 would both learn the same basic concepts. Problem-solving methods and applicatory methods instilled a common approach to warfighting from basic branch schools to the War College. This consistency was extremely important, as it ensured that the officer corps understood the same concepts and operated from a common understanding of how to fight. Regular Army graduates from the Command and General Staff College led at the regiment and above level, while younger Regular Army graduates of branch schools became leaders at the battalion and below levels. This common understanding of basic doctrine translated into flexibility for senior leaders on the ground, as seen in the reflections captured after the war.

At the end of World War II, senior leaders in the European Theater of Operations implemented a review of lessons learned similar to the Superior Board of 1919. A series of boards evaluated nearly every facet of combat, administration, and organization of the forces. These General Board Reports are

extremely detailed and occasionally critical, but they overwhelmingly support one conclusion – the American way of war worked. The General Board Reports confirmed the effectiveness of doctrinal manuals, recommending minor changes but acknowledging that basic principles were sound. Both infantry and armored division commanders concluded that the basic doctrine was sound and proved successful in combat.⁸⁷ They felt the division organization enabled fire and maneuver, preventing culmination and static warfare. The field artillery concepts for massed fires and centralized units also received validation, with only recommendations for minor changes to the doctrine. Engineer, signal corps, medical, administrative, and sustainment reports each reflect that the existing doctrine was successful. ⁸⁸ The basic conclusions of the 1919 leadership, enshrined in the interwar school system, and formalized into doctrine as the country mobilized, provided a solid base of common understanding of how Americans would fight in World War II.

Not all the doctrine survived the test of combat. Specifically, any doctrine that did not grow out of extensive experience in the First World War suffered the most criticism after the war. The most significant shortcoming in the reports concerned tank-infantry cooperation. The doctrine called for concentration of armor forces for exploitation and breakthrough.89 Instead of embedding tank units into divisions, the General Headquarters and army level maintained pools of units for allocation as necessary. Those developing the tank-infantry doctrine recognized that cooperation between units was necessary, but effective techniques came out too late for stateside training and failed to be widely disseminated. Combat proved that tanks were most effective when paired with infantry troops, but soldiers were not familiar with the methods needed to work together effectively. Simple problems like incompatible radios between dismounted infantry and tank crews were not addressed until units in contact demanded a fix – which in typical American style became the ad hoc wiring of telephones to the back of the tanks. Mobility and protection for the infantry troops was also greatly lacking, reducing the tank to walking pace to maintain contact with supporting infantry formations. 90 Tank Destroyers also relied upon pooling, although the additional problem of ineffective equipment made the problems more significant.91

The engineer General Board Report is interesting because it condemned changes made in the middle of the conflict and recommended a return to the principles outlined in pre-war doctrine. The old doctrine assigned dual responsibilities to the senior engineer in a unit as both a staff officer and the commander of engineer troops, while the doctrine that emerged during the war removed the command role specifically from the corps and army level. The consensus of the engineers was that this affected the ability of the corps and army senior engineer to employ resources effectively and created a requirement for an additional administrative headquarters. 92

The boards were also critical of the decision made by Lieutenant General Mc-Nair to group low-density specialty units into higher-level pools, which army and corps commanders allocated to divisions for specific missions. The boards found this practice ineffective, particularly for tank destroyer, tank, and engineer units. Because these units were expensive and harder to train, the idea was for them to move around the battlefield where needed. In practice, after the confusion of early combat, habitual relationships developed. The report strongly recommended that future division structures include these critical assets to improve cooperation and effectiveness. This indicates a distinction between flexible task organization by battalions and companies versus the larger division and corps flexibility.



Figure 7: M7 SP Gun Crew Italy, 1st Armored Division, August 29, 1944. Image courtesy of U.S. Army Heritage and Education Center.

There was significant continuity in the concepts from the lessons captured in the aftermath of the First World War, through the interwar doctrine taught in the school, and as prescribed in wartime doctrinal manuals. 94 In a time of austerity, the United States Army was able to evaluate its combat experience and apply lessons that survived the test of time. The stability of these basic concepts resulted in leaders at all levels operating from a common doctrine that had not changed in over twenty years. Combat leaders in the European Theater of Operations understood, implemented, and generally found the doctrine effective in combat. Stagnation is typically viewed as a negative trait. In the case of the United States Army heading into a major war, however, it was an important benefit because World War II grew

out of the lessons of World War I. A stable foundation of doctrine worked with the school system and principle of mission type orders to foster a common understanding on how to fight that was instrumental in enabling flexible task organization.

Summary of Doctrinal Foundations

The interaction between the school system, concept of initiative captured in mission-type orders, and the stable doctrine produced the common understanding that was a key component of the success of the United States Army. The school system provided a means to indoctrinate the officer corps with common concepts and a standardized problem solving method, while at the same time identifying the most capable officers. Mission-type orders built upon the American philosophy of initiative and trust, greatly reducing the requirement for detailed command and control systems that would be difficult to implement on a fluid battlefield. Finally, with a stable foundation of doctrine, every officer shared a common understanding on how the American army would fight. This fact should not be underestimated. Along the same lines as the axiom that an 80 percent plan executed violently is better than a 100 percent plan executed too late, having all units base their operations on the same concepts made the entire Army more flexible. Regular Army officers spent years in the Army school system as students and instructors studying combined arms warfare, integrated fires, maneuver, and mission-type orders. The doctrinal foundation set in the aftermath of the First World War and honed throughout the interwar years in the school system allowed American commanders to have the common understanding necessary to quickly shift forces between units to take advantage of the tactical and operational opportunities. Because General Marshall ensured Regular Army officers served in leadership positions, units fighting in Europe in 1944 displayed tremendous flexibility and disciplined initiative.

Notes

- 1. "First Army Headquarters After Actions Report Initial Draft with Comments," April 15, 1945, US Army, 1st Army Headquarters: Records 1943-1955 (73-19) Box 2, Eisenhower Presidential Library; Hogan, *A Command Post at War: First Army Headquarters in Europe, 1943-1945*; Schifferle, *America's School for War*; Matheny, *Carrying the War to the Enemy*; Collins, *Lightning Joe*, 56–57; Jeffers, *Taking Command*, 23; Price, *Troy H. Middleton*, 91; Robert Berlin, "U.S. World War II Corps Commanders: A Composite Biography," *Journal of Military History* 53 (April 1986): 4.
- 2. The term Regular Army officers is used to delineate those officers who served in the professional standing army, versus officers in the Army of the United States, which included the larger draftee forces and mobilized civilian officers. At this time, all West Point graduates and select Reserve Training Officer Course were Regular Army officers. Regular Army officers could hold dual ranks one their permanent rank in the Regular Army and a second, higher, rank in the Army of the United States, which could be revoked at the end of the war. One of the first concerns when activating the National Guard was equalizing the peacetime Regular officer promotions with the National Guard rank system. Mark S. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, The United States in World War II, CMH Publication 1-1 (Washington, DC: US Army Center of Military History, 1950), 247, 263.
- 3. Allan Reed Millett and Peter Maslowski, For the Common Defense: A Military History of the United States of America (New York: Free Press Collier Macmillan, 1984), 363.
 - 4. Schifferle, America's School for War, 19.
 - 5. Schifferle, America's School for War, 19–20.
- 6. For information on Root Reforms and the McGlachlin Report, see Millett and Maslowski, For the Common Defense, 310–312; Schifferle, America's School for War, 33; Boyd L. Dastrup, "History of the US Army Field Artillery School from Birth to the Eve of World War II," Fires, February 2011; Judith Stiehm, The U.S. Army War College: Military Education in a Democracy (Philadelphia: Temple University Press, 2002). MG McGlachlin wrote an article specifically on the War College reforms: McGlachlin, Major General Edward F. "The Army War College." The Coast Artillery Journal 57, no. 4 (October 1922): 287–305.
- 7. The War Department reduced the course to one year during those intervening years in an effort to increase the student throughput, and shifted some of the responsibility for senior staffs to the Army War College. Schifferle, *America's School for War*; Matheny, *Carrying the War to the Enemy*.
- 8. Schifferle, *America's School for War*, 32, 79; Major General Edward F. McGlachlin, "The Army War College," *The Coast Artillery Journal* 57, no. 4 (October 1922): 289; Stiehm, *The U.S. Army War College: Military Education in a Democracy*, 23; Matheny, *Carrying the War to the Enemy*; Gilbert Cook, "Officer Education System," n.d., Gilbert R. Cook Papers 1908-1959 (A91-11 & A92-12) Box 1, Eisenhower Presidential Library.
 - 9. Schifferle, America's School for War, 92.
- 10. For an excellent account of the role of branch schools in preparing battalion level commanders, see Barry, *Battalion Commanders at War*.
- 11. Dastrup, "History of the US Army Field Artillery School from Birth to the Eve of World War II," 7.

- 12. Stiehm, The U.S. Army War College: Military Education in a Democracy, 26.
- 13. Collins, Lightning Joe, 36.
- 14. Forrest C. Pogue, *George C. Marshall: Education of a General 1880-1939* (New York: Viking, 1963), 251.
 - 15. Pogue, George C. Marshall: Education of a General, 248–251.
- 16. Ed Cray, General of the Army: George C. Marshall, Soldier and Statesman (New York: Cooper Square Press, 2000), 104–106; Charles F. Brower, George C. Marshall: Servant of the American Nation (New York: Palgrave Macmillan, 2011), 31–33.
- 17. Dastrup, "History of the US Army Field Artillery School from Birth to the Eve of World War II," 8.
- 18. Dastrup, "History of the US Army Field Artillery School from Birth to the Eve of World War II," 10.
- 19. Eisenhower would end up graduating first in his class. Schifferle, *America's School for War*, 129–130.
 - 20. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 10.
- 21. Lieutenant Colonel Wade randomly selected twenty-five division commanders as the basis of his study based upon available personnel records. Major General Leland Hobbs was one of the division commanders included in the study. Lieutenant Colonel Gary Wade, "World War II Division Commanders, Combat Studies Institute Report #7" (Combat Studies Institute Press, 1983), 6, Electronic File, Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- 22. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 25.
 - 23. Matheny, Carrying the War to the Enemy, 262.
- 24. Compiled from lists included in Annual Report of the Commandant, which is not complete. MG Hobbs (1932-1934); BG Harrison, ADC (1934, instructor 1935-1937); BG Lewis, Division Artillery CDR (1934-1936); COL Birks, 120th INF REG (1940); COL Kelly, 117th INF REG (1938); BG McLain, ADC was a NG officer and attended the NG version of the course. The following senior leaders could not be confirmed: COL Purdue, 120th INF REG (RA); COL Sutherland, 119th INF REG, COL Baker, 119th INF REG, COL Johnson, 117th INF REG; COL Ellis, Deputy DIV Artillery; COL Stephens, DIV COS. *Annual Report of the Commandant of the Command and General Staff School* (Fort Leavenworth, KS: Command and General Staff College, 1940 1882), Digital Archive, Combined Arms Research Library Digital Library, http://cgsc.edu/carl/resources/archival/annualreports.asp.
 - 25. Schifferle, America's School for War, 35, 107-108, 191.
 - 26. Price, Troy H. Middleton, 91.
- 27. CGSS Student Papers, 1930-1936 Collection, Combined Army Research Library Digital Collection, http://cgsc.contentdm.oclc.org/cdm/.landingpage/collection/p4013coll14.
- 28. Leland S. Hobbs, "Tactical and Strategical Effects of the Development of the Fast Tank.," CGSC Student Paper (Fort Leavenworth, KS, 1934), Individual research papers (IR) / Command and General Staff School, Combined Arms Research Library Digital Library.
- 29. "First Army Headquarters After Actions Report Initial Draft with Comments," 6 (35).

- 30. "First Army Headquarters Summary of Operations September and October 1944," n.d., 16, US Army, 1st Army Headquarters: Records 1943-1955 (73-19) Box 3, Eisenhower Presidential Library.
- 31. McGlachlin provides an extensive discussion on selection of students and how they are evaluated to ensure cooperation not competition. McGlachlin, "The Army War College;" Matheny, *Carrying the War to the Enemy*, 57.
 - 32. Stiehm, The U.S. Army War College: Military Education in a Democracy, 28.
- 33. Matheny, *Carrying the War to the Enemy*, 262; Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 12.
 - 34. Schifferle, America's School for War, 34.
- 35. "Army War College Command Course Lectures 1940," n.d., J. Lawton Collins Papers 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 1, Eisenhower Presidential Library.
 - 36. McGlachlin, "The Army War College."
- 37. Stiehm, *The U.S. Army War College: Military Education in a Democracy*, 30–31; McGlachlin, "The Army War College," 305.
 - 38. Cray, General of the Army, 106.
 - 39. Pogue, George C. Marshall: Education of a General 1880-1939, 248–249.
- 40. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 4 and Appendix; Charles E. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," in *The U.S. Army and World War II: Selected Papers*, ed. Judith Bellafaire, United States Army in World War II, CMH Publication 68-4 (Washington, DC: US Army Center of Military History, 1998), 268.
- 41. For a detailed analysis of selection of instructors during the interwar period, see Criterion 2a from: James D. Sisemore, "Fort Leavenworth and Its Education Legacy; Recommendations for ILE" (Monograph, School of Advanced Military Studies, Command and General Staff College, 2012), 65, Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
 - 42. Schifferle, America's School for War, 110.
- 43. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 187.
- 44. Schifferle provides discussion on the role of Leavenworth in training. For a more complete discussion of training new divisions, see Palmer. Schifferle, *America's School for War*, 150; Robert R Palmer, Bell I. Wiley, and William R. Keast, *The Procurement and Training of Ground Combat Troops*, The United States in World War II, CHM 2-2 (Washington, DC: US Army Center of Military History, 1948), 454.
- 45. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 237.
 - 46. Schifferle, America's School for War, 156.
- 47. Bradley commanded 82nd and 28th Divisions during training and would go on to command II Corps, First Army, and 12th Army Group. Terrell commanded 8th Infantry Division, 90th Infantry Division, and finally XXII Corps during World War II. Eichelberger commanded 77th Infantry Division, I Corps, and Eighth United States Army in the Pacific during World War II. Schifferle, America's School for War, 157.
 - 48. Hewitt, Work Horse of the Western Front, 5.
- 49. See Russell F. Weigley, *The American Way of War: a History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1973), chap. 10;

Millett and Maslowski, For the Common Defense, chap. 11; Matheny, Carrying the War to the Enemy, chap. 2; Schifferle, America's School for War, chap. 1; Pogue, George C. Marshall: Education of a General 1880-1939, 253; Richard Shawn Faulkner, The School of Hard Knocks: Combat Leadership in the American Expeditionary Forces, 1st ed., C. A. Brannen Series, no. 12 (College Station: Texas A&M University Press, 2012), 143.

- 50. There are many sources which discuss the German Auftragstaktik concept. Muth, Command Culture. Robert M. Citino, The German Way of War: From the Thirty Years' War to the Third Reich (Lawrence, KS: University Press of Kansas, 2005). David M. Keithly and Stephen P. Ferris, "Auftragstaktik, or Directive Control, in Joint and Combined Operations." Parameters, US Army War College Quarterly. Autumn 1999, Vol. XXIX, No. 3. Bruce Condell and David T. Zabecki, eds. On the German Art of War: Truppenführung (Boulder, CO: Lynne Rienner Publishers, 2001).
 - 51. Operations (1941), 22.
- 52. Eben Swift, *Field Orders, Messages, and Reports* (Washington, DC: Government Printing Office, 1906), 15.
 - 53. Swift, Field Orders, Messages, and Reports, 13.
 - 54. Swift, Field Orders, Messages, and Reports, 15.
 - 55. Operations (1941), 31.
- 56. Staff Officers Field Manual: The Staff and Combat Orders, Field Manuals 101-5 (Washington, DC: US War Department, 1940), 49.
 - 57. Operations (1941), 24, 33.
 - 58. Staff Officers Field Manual: The Staff and Combat Orders, 42, 96.
- 59. Lesley J. McNair, "Comments on the First Phase of the LA Maneuvers," November 21, 1941, Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 3), Eisenhower Presidential Library.
- 60. "XII Corps Staff Operational Procedures 12 August 1944 to May 1945," October 29, 1945, 76, 127, Gilbert R. Cook Papers 1908-1959 (A91-11 & A92-12) Box 9, Eisenhower Presidential Library; "XIX Corps Standard Operating Procedures," November 1944, N-13681.2, Combined Arms Research Library Digital Library, Fort Leavenworth, KS; "XIII Corps Standard Operating Procedures, Change 1," August 21, 1944, N-13681, Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
 - 61. "XIX Corps Standard Operating Procedures," sec. I.
- 62. "4th Infantry Division, Operations Orders and Transcripts of Oral Orders June to August 1944," 1944, sec. 181700 June 1944, U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 67, Eisenhower Presidential Library.
- 63. Faulkner provides a critical study of the challenges faced by junior leaders in an army that grew from a 209,000 soldier constabulary force to 4,000,000 soldiers in a mass technical army. Faulkner, *The School of Hard Knocks*, 7, 143.
- 64. Matheny, *Carrying the War to the Enemy*, 29; Hamburger, "Learning Lessons in the American Expeditionary Forces," 16; Faulkner, *The School of Hard Knocks*, 143.
 - 65. Hamburger, "Learning Lessons in the American Expeditionary Forces," 20.
- 66. G.O. 21 (August 13, 1917) and G.O. 196 (November 5, 1917); Hamburger, "Learning Lessons in the American Expeditionary Forces," 21.
- 67. Faulkner is very critical of the efficiency of the AEF adaptation of doctrine and use of schools, arguing that the impact of removing leaders from their units to attend school limited their ability to train their units. His focus is primarily upon the combat effectiveness of junior officers and NCOs. However, he ultimately reaches the same

conclusion that the officers of the AEF were focused during the interwar years on being better prepared for the next war. Lengel is also critical of the experience of the AEF. His introduction claims the US Army quickly ignored the lessons of Meuse-Argonne without a comprehensive effort to study and synchronize the lessons, choosing instead to rely upon branch specific studies. Faulkner, *The School of Hard Knocks*, 175, 324; Edward G. Lengel, *To Conquer Hell: The Meuse-Argonne, 1918*, 1st ed. (New York: H. Holt, 2008); Schifferle, *America's School for War*, 11–13; Matheny, *Carrying the War to the Enemy*, 42.

- 68. "World War I All-Stars: Sports & the Inter-Allied Games" (Special Exhibition, National World War I Museum at Liberty Memorial, Kansas City, KS, 2012).
- 69. Schifferle, *America's School for War*, 31–32; Faulkner, *The School of Hard Knocks*, 324.
- 70. Many veterans viewed the end of the war as incomplete because it ended before the Germans were defeated on the battlefield. Despite the harsh terms, they felt that the German military had not been defeated and would rise again.
- 71. The Superior Board did make some bad recommendations. The clearest mistakes were its recommendations on the roles, organization, and functions of mounted cavalry and use of the airplane. Even these bad recommendations affected the understanding of combat in the interwar years. United States Army American Expeditionary Forces; Superior Board on Organization and Tactics, *AEF Report of Superior Board on Organization and Tactics*, 1919, 18, 65, Electronic File, Combined Arms Research Library Digital Library, http://cgsc.contentdm.oclc.org/cdm/ref/collection/p4013coll7/id/808.
- 72. United States Army American Expeditionary Forces; Superior Board on Organization and Tactics, *AEF Report of Superior Board on Organization and Tactics*, 1919, 107.
- 73. United States Army American Expeditionary Forces; Superior Board on Organization and Tactics, *AEF Report of Superior Board on Organization and Tactics*, 1919, 30, 36, 47–48, 89, 96, 107.
 - 74. Operations (Tentative) (1939), Cover Letter.
- 75. Operations (1941); Operations (Tentative) (1939); Field Service Regulation; Operations (1944).
 - 76. Staff Officers Field Manual: The Staff and Combat Orders.
- 77. Odom argues that the operational doctrine remained consistent from the 1923 to 1939 manuals, but claims a dramatic shift in 1941 to include mechanized and aerial warfare. While there is greater emphasis on these subjects as the technology and impact became known, the basic concepts of combined arms warfare, primacy of the infantry division, and mission type orders remain consistent throughout all versions of the capstone doctrine. Odom, *After the Trenches*.
 - 78. Field Service Regulation, Intro; 11.
- 79. Operations (1944), 2–3, 6; Operations (1941), 2, 5; Operations (Tentative) (1939), 3, 5; Field Service Regulation, 1.
- 80. Field Service Regulation, 8; Staff Officers Field Manual: The Staff and Combat Orders, 42.
- 81. Field Artillery Tactical Employment, Field Manuals 6-20 (Washington, DC: Government Printing Office, 1944), 1; Field Service Regulation, 14.
- 82. Field Service Regulation, 121; Quartermaster Field Manual: Quartermaster Operations, Field Manuals 10-5 (Washington, DC: Government Printing Office, 1945).

- 83. Signal Operations In Corps and Army, Field Manuals 11-22 (Washington, DC: U.S. Government Printing Office, 1945); Signal Corps Field Manual Signal Organizations and Operations in the Armored Division and Armored Corps, Field Manuals 11-17 (Washington, DC: Government Printing Office, 1941); Field Service Regulation, 19.
 - 84. Matheny, Carrying the War to the Enemy, chap. 4.
- 85. Mansoor, *The GI Offensive in Europe*, 161; Doubler, *Closing With the Enemy*; Weigley, *Eisenhower's Lieutenants*, 126.
- 86. "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6, Eisenhower Presidential Library; "General Board Reports: Functions, Organization, and Equipment of Army Headquarters and Headquarters Company, Study Number 24," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3, Eisenhower Presidential Library; "General Board Reports: Functions, Organization, and Equipment of Corps Headquarters and Headquarters Company, Study Number 23," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3, Eisenhower Presidential Library; "General Board Reports: Mechanics of Supply in Fast Moving Situations, Study 27," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4, Eisenhower Presidential Library; "General Board Reports: Organization, Functions, and Operations of G3 Sections in Theater Headquarters, Army Groups, Armies, Corps, and Divisions Study Number 25," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3, Eisenhower Presidential Library; "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3, Eisenhower Presidential Library; "General Board Reports: Supply Functions of Corps, Study Number 28," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4, Eisenhower Presidential Library.
- 87. "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48," 22; "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15," 12.
- 88. "General Board Reports: Supply Functions of Corps, Study Number 28," 1; 8; "General Board Reports: Field Artillery Operations, Study Number 61," n.d., 106–108, Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 7, Eisenhower Presidential Library; "General Board Reports: Signal Corps Personnel, Training, and Command and Administrative Structure, Study Number 112," n.d., 17, Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 11, Eisenhower Presidential Library.
- 89. Field Service Regulations, Larger Units, Field Manuals 100-15 (Washington, DC: U.S. War Department, 1942), 93; Operations (1941), 278; Armored Command Field Manual: The Armored Division, Field Manuals 17-100 (Washington, DC: U.S. Government Printing Office, 1944), 26.
- 90. "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15;" "General Board Reports: Organization, Equipment, and Tactical Employment of Separate Tank Battalions, Study Number 50."

- 91. "General Board Report: Organization, Equipment, and Tactical Employment of Tank Destroyer Units, Study Number 60," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 7, Eisenhower Presidential Library.
 - 92. "General Board Report: Engineer Organization, Study Number 71," 5; 7.
- 93. "General Board Report: Engineer Organization, Study Number 71;" "General Board Reports: Organization, Equipment, and Tactical Employment of Separate Tank Battalions, Study Number 50;" "General Board Report: Organization, Equipment, and Tactical Employment of Tank Destroyer Units, Study Number 60;" "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48."
- 94. Some authors (William Odom in *After the Trenches*) have proposed that the doctrine failed to keep up with technological changes during the interwar years, and thus underwent significant change from 1940 on. However as presented here, the evidence suggests that there was stability in the major concepts. Most significant, the contributors to the General Board Reports all confirmed the effectiveness of the doctrine. Walter Kretchik reaches a similar conclusion in his study of the evolution of American doctrine. Walter E. Kretchik, *U.S. Army Doctrine: From the American Revolution to the War on Terror*, Modern War Studies (Lawrence, KS: University Press of Kansas, 2011).

Chapter 3 Leadership

The second key factor in the US Army's ability to change task organization at corps, army, and army group levels quickly was the high quality of the officers leading divisions and corps. None of the United States Army's senior leaders had any experience leading large units before mobilization – the vast majority of future division commanders were captains, majors, and lieutenant colonels in 1939. Of all the Regular Army and National Guard division commanders in 1940, none would command a division in combat and only three went on to command larger combat units. Most Regular Army and National Guard general officers were judged by General Marshall to be too old for the rigors of combat. There were exceptions. National Guard Brigadier General Raymond McLain started as a division artillery commander in the 45th Infantry Division during the Italy campaign and with the 30th Infantry Division in Normandy before Patton selected him to turn around the struggling 90th Infantry Division. His success transforming the 90th Infantry Division into one of the best units in theater resulted in his selection to command XIX Corps when Major General Corlett redeployed to the United States due to health concerns. Major General Robert Sprague Beightler commanded the 37th Infantry Division in the Pacific, the only National Guard division commander to command his unit for their entire active combat service.²

For the most part, General Marshall had to build a system to identify a completely new set of commanders and key staff officers for each of the divisions and higher units. First, Marshall sought and received authority from Congress to control the quality of the officer corps promotion, selection, and relief process – a tool he used to shape the senior officer corps in line with his vision of combat leadership. One result was that the Regular Army dominated key command and staff positions. Marshall also took personal interest and deliberate care in selecting division, corps, and army level commanders – and when they failed to meet the standard, senior officers quickly relieved them.³ Finally, the Army empowered staff officers with a great deal of authority, improving their effectiveness and independence. This focus on leadership resulted in a core of high quality senior officers in Europe who knew each other well from their service in the small peacetime army. This familiarity bred trust between commanders and staffs that improved efficiency when executing complex combat operations. These traits were critical in enabling the flexible task organization used in the European Theater.

Ensuring the Quality of the Officer Corps

Confronted with the problem of expanding the Army, General Marshall possessed a very clear vision of what type of officers he needed. The small size of the standing army would require the induction of huge numbers of National Guard, Reserve, and newly commissioned officers.⁴ While necessary and likely that these officers could fill critical roles as junior leaders or in leading organizations related

to their civilian skills, he did not believe they had the experience necessary to lead combat divisions.⁵ Thus, he drew a disproportionate percentage of senior combat leadership – both commanders and senior staff – from the Regular Army who had spent years preparing for this mobilization. However, not every Regular Army officer was equally capable, so Marshall also needed a process for selecting the best candidates without regard for a seniority-based promotion system. Drawing upon his experience in the peacetime army, he knew some candidates personally and others by reputation. He recognized the need to test their ability to translate theoretical and schoolhouse ability into leadership under stress. The mobilization period provided the first major test, but only combat experience could really identify the best. To aid the process of selection, Marshall sought control over the promotion and separation system in order to move high quality Regular Army officers ahead of their National Guard peers while quickly separating those officers incompatible with his vision of leadership.

Regular Army officers provided the core leadership of the wartime army by design. After the First World War, the United States drew down the active Army significantly. Instead of maintaining an expeditionary force, it opted for a cadre force.⁶ Rejecting universal service or large standing armies for both financial and ideological reasons, the National Defense Act of 1920 provided for a small Regular Army, a large National Guard, and a deep reserve of company-grade officers through the Reserve Officer Training Corps. A professional officer corps would provide the experienced backbone for the expanding ranks of civilian soldiers in time of war. With far more officers on active duty than troop leading positions, most officers spent more time in schools than with soldiers.⁸ This provided them with a theoretical understanding, but little practical experience and a stagnant promotion system driven completely by seniority rather than competence.⁹ As the War Department developed mobilization plans, they recognized there were not enough Regular Army officers to fill all of the required positions. An immediate problem was that National Guard officers were typically senior to their active duty counterparts and too old for the rigors of combat duty. Marshall needed a system to select the most capable officers regardless of component and move them ahead.¹⁰

Marshall initially used an age-based system to retire or reassign many of the oldest general officers, making room for those that he trusted.¹¹ In a letter to the Senate Military Affairs committee in 1940, Marshall wrote:

Officers with knowledge, initiative, drive, and leadership must be placed in important command and staff positions. We have the officers and they can be so placed, provided authority is granted to select and redistribute them without the normal peacetime restrictions as to seniority... Leadership in the field, and especially during the hurried organization of the urgently needed new units, must not depend on seniority, meaning age.¹²

The morale of the National Guard officer corps was a big concern. Marshall sought the authority to re-balance the officer corps towards combat capable leaders,

but simply removing the most senior officers and placing the Regular Army officers he trusted in charge was not feasible. Marshall focused on promoting Regular Army officers to ensure they would hold the most critical leadership positions and reassigned (sometimes by promotion) National Guard and Reserve officers to noncombat jobs or regimental and below positions. Removing every National Guard senior leader would have a negative effect upon the officer corps, so the official policy had to reflect equal opportunity.¹³

Allocation of Regular Army officers became a major focus of the Army Staff. Spreading them widely would ensure the activated National Guard divisions and newly formed units each had a core of quality officers, but Marshall and McNair deemed it especially critical to concentrate in the combat divisions where quality leadership was most important, at the expense of the support units. ¹⁴ Regular Army officers became key to the forming and training of new units, and every division commander demanded a large share. For example, the 30th Infantry Division never had more than 31 Regular Army officers out of 796 authorizations, and those were all in key positions. If these regular officers proved ineffective, the division leadership got rid of them immediately. ¹⁵

Lieutenant General Leslie McNair, commander of Army Ground Forces, was responsible for training new units, and his staff provided detailed training plans for the ten to twelve month period required for a division to be fully capable. The execution relied upon the Regular Army cadres in each unit. As Army Ground Forces formed divisions, they would pull cadres out of previously trained divisions further diluting the percentage of Regular Army officers in each unit, something that happened repeatedly during the 30th Infantry Division's training.¹⁶

Even during combat, managing these officers was critical. The First Army staff had 56 Regular Army officers, filling the positions of Chief of Staff, operations officer (G3), administrations officer (G1), and other critical jobs. ¹⁷ During the Normandy campaign, professionals typically commanded at the division and regimental level, with an even mix of Regular Army, Reserve, and National Guard officers at the battalion level. Few were company commanders, as they moved up or out quickly. Graduates of Officer Candidate School usually commanded two-thirds or more of the companies in a division (the remainder were a mix of other sources). ¹⁸ The number of Regular Army officers filling the most critical command and staff positions is even more remarkable considering they accounted for only one of forty officers at the height of the mobilization. ¹⁹ Highly sought after and filling the most important positions, this professional officer corps provided the foundation upon which the United State Army fought in World War II. This close-knit community which shared a common culture and experiences provided a vital informal link between units thrown together in combat.

Marshall and McNair recognized that the interwar period provided few opportunities to evaluate the abilities of the active duty officer corps. Command opportunities were very limited and often with understrength units without any real mission.²⁰ Thus, the first real opportunity to judge any officer's potential was during the mobilization and early combat operations, not an ideal time for learning, but an opportune time to evaluate effectiveness.²¹ Peter Mansoor links the leadership ability of commanders during mobilization directly to the units' future performance in combat.²² Division commanders who performed well often went on to command larger units – Omar Bradley trained both the 82nd Infantry Division and the 28th Infantry Division before deploying to Africa where he would serve as deputy II Corps commander and later command that corps.²³ George Patton trained the 2nd Armored Division before his assignment as the Western Task Force Commander during Northern Africa landings and later commander of II Corps.²⁴ Hobbs assumed command of the 30th Infantry Division in September of 1942, and led his division through much of its training.²⁵ Most commanders did not meet Marshall and McNair's standards for performance and they were reassigned before their divisions deployed; some because of their age, but often because McNair believed they were not capable.



Figure 8: MG Patton briefing Louisiana Maneuvers in 1941. Officers continued to utilize the techniques taught in the Army Schooling system in both the large-scale maneuvers and later in combat operations. Image courtesy of US National Archives.

McNair's primary forum for evaluating large unit leaders during the mobilization period was force-on-force maneuver exercises. Large unit maneuvers were the first big test for commanders, with 31 of 42 division and corps commanders facing relief or retirement due to their performance, with another 20 of the 27 division commanders relieved in 1942.26 McNair personally led many of the exercises and emplaced observers who he trusted to send detailed reports. McNair's report on the November 1941 First Army versus IV Army Corps Maneuvers in North Carolina is a detailed criticism of the performance of all units. Evaluated against doctrine, McNair takes units to task for failure to coordinate between echelons, maintain situational awareness, and general failure to apply sound tactics.²⁷ General Courtney Hodges was an observer for an exercise, and his report is even more severe. Hodges cites the failure in small unit tactics as a direct result of the poor performance by senior leaders who assigned excessive frontage per unit and emphasized speed over security and good tactics.²⁸ Senior leaders used these large exercises to evaluate Army doctrinal concepts as well as individual leadership abilities. In general, these exercises showed that the concepts were sound, but modifications were necessary. More importantly, the exercises reinforced the importance of leadership to translate the theory into practice. They identified and promoted those who were able, and reassigned those who failed to make the leap.

Under this new authority, Marshall and McNair used the mobilization and training evaluations to remake the officer corps. Through the process of identifying and removing sub-par officers, McNair believed that by the summer of 1942 the officer corps had succeed in weeding out many of the most unfit of the activated officers. He exhorted his subordinates to critically evaluate and aggressively reassign officers — both Regular Army and National Guard — who did not perform. McNair wrote to Lieutenant General Walter E. Krueger, commander of the Third Army during the Louisiana Maneuvers, that General Marshall had made

crystal-clear that the reclassification of incompetent officers, regardless of grade, was exactly what he was exerting every effort to bring about. . . He made no distinction at all as between the Regular Army and the National Guard – both should be given a thorough overhauling. In short, you certainly are free to handle all cases of this kind on their merits without fear of embarrassing the War Department. I may go further and say that the War Department emphatically urges such action by army commanders.³⁰

Instituting this standard of effectiveness rather than the principle of seniority was a tremendous change in the culture of the officer corps and greatly improved the ability of commanders to recognize and ensure the right personnel filled the right jobs.

The selection of qualified officers and removal of incompetent officers continued once the units arrived in theater. While First Army prepared for the Normandy invasion, the Army personnel section (G1) utilized both a formal and informal process for officers of suspect qualifications. Personnel staff interviewed each unfit

officer in an attempt to administratively reassign him within the command away from a combat leadership billet into a staff or support job. First United States Army reclassification boards officially evaluated 89 officers between January and June 1944 while stationed in England, recommending 42 discharges.³¹ From 1 June 1943 to 1 June 1945, the European Theater of Operations standing evaluation board reviewed an additional 1,366 officers, with 67 percent separated, 30 percent reassigned, and 2.5 percent other disposition. The reasons for separation, in order given, are: individual leadership or judgment concern, failure to perform in combat, unqualified for assignment, inability to adapt to the needs of the service, lack of officer attributes, cowardice or combat exhaustion, mental disability, or undesirable characteristics like alcoholism or laziness.³² These characteristics reflect Marshall's emphasis on the effectiveness of leaders, particularly those entrusted with combat units. The most common reason for separation was not moral failings or intellectual ability, but rather poor combat leadership traits. Considering the number of officers in Europe, 1,366 officers is a small percentage of the population, and reflects the effectiveness of Marshall and McNair's efforts to shape the officer corps through promotions, reassignment, and retirement. The system ensured that those in the important leadership positions were capable of executing combat operations with a great deal of autonomy, a key component of the decentralized command philosophy and enabler of the task organization flexibility so important in the European Theater.

Quality Commanders

The selection of division and corps commanders was extremely important in the American system. Without quality leadership, the principles of mission-type orders, combined arms, and fire and maneuver are impractical for units that constantly change their composition and command relationships. In the American commander-centric system, commanders were responsible for everything their units did or failed to do. With this responsibility came requisite authority. Given time and ample training opportunities, commanders gain a greater understanding of the capabilities, strengths, and weaknesses of their subordinates. Using this knowledge, commanders can properly assign missions, tailor their guidance, and emplace appropriate control measures to cover weakness.

The battlefields of Europe did not always provide senior leaders with the opportunity to gain this level of understanding. The one constant on the continent in 1944 was that there were nearly always new units arriving, new large commands forming, and constant introduction of personnel complexity onto the battlefield. The small peacetime Army and tight-knit officer corps ensured that the leaders knew each other well. The rosters of graduates from Command and General Staff School in the 1930s are a who's who of the wartime leadership, where officers had ample opportunity to renew friendships among West Point classmates as well as to spend significant time meeting other quality leaders of similar year groups.³³

However, as already highlighted, the peacetime Army could not evaluate an officer's fitness to command or gain an understanding of their combat leadership strengths and weaknesses. Only after exposure to combat leadership could senior commanders truly assess. As First Army and later 12th Army Group Commander, General Bradley and his subordinate commanders made decisions on replacing commanders and allocating forces based upon requirements rather than a concern for building strong command team relationships. Bradley and other senior leaders focused on the competence of every division and corps commander, and quickly replaced those who were not capable. The use of selection and relief contributed to the quality of commanders in the field. General Marshall, assisted by Lieutenant General Leslie McNair and later General Eisenhower and General Bradley, personally selected the best officers for division command, and only promoted a proven few to corps, army, and army group command.³⁴ Commanders had a short window to produce results and prove themselves capable, in a few cases only three or four days before they were relieved.³⁵ The system leveraged personal connections, proven combat experience, and freedom to reassign those who did not meet the standard to ensure the American commanders were the best available.



Figure 9: General Marshall and the War Department General Staff sought and utilized the power to select and promote to shape the leadership of the combat forces in line with Marshall's vision. Image courtesy of US National Archives.

The process of selecting division commanders started even before Pearl Harbor, as Marshall implemented policies to mobilize the force. As already addressed, General Marshall's age policies dictated that nearly all of the officers with experience as division commanders or higher would be too old for combat service. Combined with the massive mobilization, Marshall had many positions to fill, and he wanted "officers with knowledge, initiative, drive, and leadership" to key command and staff positions. Tone possible method he could have used was to establish a central selection board to review all personnel files and choose the best-qualified officers. Marshall instead chose a much different system, relying heavily upon his personal knowledge of other active duty combat arms officers and entrusting General McNair with the responsibility for screening candidates.

Those officers with prior experience serving with Marshall fared well in this process, particularly those from Fort Benning.³⁸ As historian Martin Blumenson observed of Marshall and McNair's lists, "there were probably a dozen, perhaps more, who were every bit as good as the ones he listed. The others were simply unfortunate because they had failed to come within Marshall's orbit and ken."³⁹ Lieutenant General Mark W. Clark, while serving as the deputy to McNair, was responsible for working with the chief of infantry to nominate candidates for division commanders and assistant division commanders, while McNair would nominate candidates for division artillery commanders. Clark's list reflected seniority, but put greater emphasis on efficiency, an officer's reputation, and Clark's personal knowledge of the officers. Marshall would make the final selections from these lists.⁴⁰ Regardless of the actual method, the result was clear – Regular Army officers dominated division command positions, even within National Guard units.

This dominance was clearly controversial at the time. An entire section in *Chief of Staff Prewar Plans and Preparation* is dedicated to discussing memoranda Marshall and his staff generated claiming equal opportunity for National Guard officers while defending Marshall's insistence on the best qualified at the time. These memoranda to army and corps commanders outline Marshall's guidance that if qualified National Guard officers are available for command positions, they are to be favored over Regular Army officers. However, he also strongly stressed that the most important factor was not component but competence. In practice, the Regular Army officers were overwhelmingly selected.⁴¹ The preference reflected Marshall's belief that the interwar years provided Regular Army officer with the experience, training, and most importantly discipline to lead large units. In a letter to Undersecretary of War Robert P. Patterson, Marshall stated:

The RA units are not bothered by poor morale because the officers have attained professional knowledge either at schools or through practical exp. NG officers have not had these opportunities, and the morale of their units reflects the deficiency.⁴²

McNair also believed that selection of National Guard officers would be a mistake because of the increased complexity of combined arms warfare and importance of division commanders. In a letter to Marshall stating his opposition to promoting any of the current National Guard brigadier generals to division command, McNair stated that making token selections not based upon capability would only do harm over time. In the end, only one National Guard commander would remain in command from training to the end of the war, while one other was selected for corps command. ⁴³

Two studies on World War II division commanders are useful in understanding the profile of those selected by Marshall. Lieutenant Colonel Gary Wade conducted a statistical analysis of World War II Division commanders and Charles E. Kirkpatrick compiled a profile of major generals assigned to V Corps during the war. While neither is a complete study because of missing personnel files and the breadth of the subject, both studies come to similar conclusions and provide interesting statistics that help understand those selected as senior leaders in combat. Of the 89 divisions formed, 87 divisions saw combat in one or the other theater. Forty-six divisions had one commander the entire combat tour and 41 divisions had multiple commanders, totaling 134 division commanders in combat. Twenty of these commanders would also serve as corps or army commanders during World War II.⁴⁴ In his study, Wade examines the career background of 25 randomly selected division commanders who served in combat, all of whom were Regular Army officers. 45 Kirkpatrick examined the careers of the 20 major generals and two brigadier generals who served in V Corps, all of whom were Regular Army officers. 46 Wade found that these 25 officers spent an average of 18 years as a captain, major, or lieutenant colonel during the interwar years. They spent this time primarily in Army schools as students or instructors, giving them greater opportunities to hone their tactical skills than those afforded to National Guard officers.⁴⁷ Kirkpatrick found a similar trend, where none was younger than 40 years old when promoted to lieutenant colonel and had spent 10.58 years in school compared to 9.8 years with troops.⁴⁸

Every officer in both studies attended the Command and General Staff School at Fort Leavenworth, with a significant proportion having graduated as distinguished or honor graduates. ⁴⁹ Kirkpatrick's study also recognizes that these officers would have known each other well; many had been cadets at West Point when the class sizes were small enough that a cadet would have been very familiar with all members of the Corps of Cadets. All officers spent significant time in the school system where they would have met others from every branch and commissioning source. ⁵⁰ One of the most interesting statistics found by Wade is that 23 of the 25 officers he studied were serving in command positions immediately prior to selection for division command. ⁵¹

These two studies support the conclusion that Marshall preferred Regular Army officers who he either knew personally or through reputation, who had spent the lean interwar years learning the science of war in the Army school system, and who had demonstrated their competence in combat. The selection pattern for corps

and army commanders and causes of relief for senior leaders further supports this conclusion.

Marshall controlled the selection of higher-level commanders even more closely than the selection of division commanders. With fewer headquarters to build, and time to evaluate the effectiveness of combat leadership in action, selection also required less gambling with unproven competence. Robert H. Berlin conducted a study of World War II corps commanders that paralleled Wade's effort with division commanders. Berlin's conclusions on the importance of the interwar period school system, duty as instructors, and personal relationship with Marshall match Wade's conclusions. Twenty-two corps saw combat during World War II, and they were commanded by 34 different general officers. Interestingly, considering the age of these officers, only slightly over half of them saw combat in the First World War. Non-combat roles during the earlier war did not seem to be a screening criterion for higher-level service in World War II.⁵² Nor was their commissioning source or performance in those schools a determining factor for success. However, 33 were graduates of the Command and General Staff College, 13 as honor or distinguished honor graduates, with only two in the bottom half of their class.⁵³ Twenty-nine of them were also graduates of the Army War College, but every single one of them served as an instructor at one of the Army schools during the interwar years.⁵⁴ Berlin's conclusion is that by 1939 these colonels were "exceptionally well prepared for challenges of high-level command in modern war."55

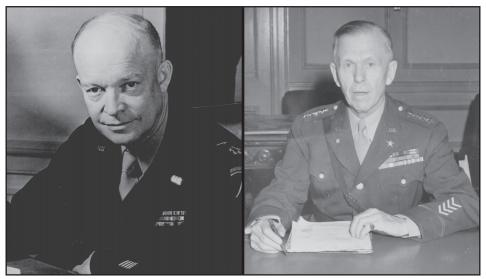
Marshall initially looked to fill corps command positions with officers who proved themselves training and preparing divisions – men like Bradley, Oscar Griswold, George S. Patton, Jr., and Innis Swift. ⁵⁶ As additional corps were created, Marshall was able to select division commanders with proven records in combat. Nevertheless, like division commanders, ultimately a personal relationship with Marshall, Eisenhower, or Bradley meant more than proven combat experience. ⁵⁷ As a group, these officers were extremely successful in combat, with only seven being relieved from command (four at least marginally due to medical reasons), and four corps commanders promoted to army or army group command. ⁵⁸

That these officers contributed immensely to the Americans' success is clear from numerous books and articles. What is generally under-appreciated is that the corps was responsible for integration and tactical employment of divisions that moved around the battlefield regularly. As Lieutenant General Alvan C. Gillem explained in a lecture at Fort Benning in 1948, the corps was an amorphous, elastic tactical unit that "expands and contracts according to the allocation of troops from higher headquarters based on the enemy, the terrain and the contemplated missions." Of any group of officers in the European Theater, the corps commanders were the ones charged with making flexible task organization possible. Putting the very best officers in charge instilled confidence in the system and ensured that quality leadership countered the friction of constantly changing unit alignment.

Because so much depended upon quality commanders in combat, Marshall, Eisenhower, Bradley, and other senior leaders were quick to replace commanders who failed to perform. ⁶⁰ Many commanders never made it to combat. Just as the mobilization and training processes identified good leaders for higher-level commands, it also identified commanders who were too old for front line command of divisions, lacked ability or energy, or displayed poor leadership. ⁶¹ Marshall's standards and expectations were high, and his process shunted many into permanent staff capacities. ⁶²

The standards were even higher once overseas. In the European Theater alone, six corps commanders and 12 division commanders were relieved in combat.⁶³ Two illustrative examples are the 90th Infantry Division and the 8th Infantry Division. The 90th Division lost two commanders to relief within the unit's first two months on the continent because the division failed to perform as aggressively as other units. The first commander, Brigadier General Jay W. MacKelvie, was relieved shortly after his Normandy landing because Bradley believed he lacked the ability to grasp combined arms maneuver despite his training and certification by McNair before deployment. The officer who replaced MacKelvie, Major General Eugene M. Landrum, was relieved when he failed to get out of his command post enough for his superiors.⁶⁴ The 8th Infantry Division commander, Major General William C. McMahon, was relieved after only four days in command because of his units' lack of cohesion and hesitation under fire, another example of how senior commanders felt that combat performance outweighed training maneuver competence. He was replaced by Brigadier General Donald A. Stroh, who had previously served under Major General Manton Eddy of the 9th Infantry Division, and who was widely recognized for his combat leadership.65

From the Normandy landings until 1 August 1944, Bradley fired nine corps and division commanders. 66 In General Hodge's war diaries from his time as deputy and then commanding general of First Army, the decision to relieve division commanders was typically the result of consultations between corps commanders, the army commander, and army group commander. ⁶⁷ Corps commanders were also relieved, although often with medical reasons masking the true cause of perceived poor combat performance. Major General Charles Corlett was relieved after failing to move quickly enough to trap the German army at Aachen, even though the official reason given by Eisenhower and Bradley was to provide Corlett with time to rest and recuperate.⁶⁸ In the end, results counted more than personal relationships or previous performance in decisions to relieve commanders. Relief seemed to work, with units like the 90th Division turning around to become one of the strongest units in the European Theater by the end of the campaign. With so much responsibility placed upon corps and division commanders, Eisenhower, Bradley, and the army commanders quickly moved those who failed to perform and put in officers that would succeed.



Figures 10 and 11: Gen Marshall and Gen Eisenhower personally engaged to ensure the highest quality leadership in combat divisions and above commands. Images courtesy of US National Archives.

Role of the Staff

As important as commanders were to the success of the American Army, staffs ran the machinery that implemented their commander's orders. The fluid task organization posed special problems for staffs. Two staff solutions were instrumental in enabling mobile warfare: the use of liaison officers and the dual function of technical staff officers as commanders.⁶⁹ It is important to recognize the role of the staff in implementing the concepts explored previously, especially those officers who served as chiefs of staff coordinating the day-to-day operations of the unit; intelligence officers who provided the information that formed the commander's understanding; and the operations officers who translated their commanders' vision into operational plans. Instead of dealing with those functions separately, the next section will highlight the synergy of doctrine, capable combat leaders, and commanders.

Of all the factors examined for this study, the one that emerges most often from the doctrine, standard operating procedures, personal papers, and after-action reports is the generally acknowledged importance of liaison officers. In the fast pace of mobile warfare with limited communications, the liaison officers were given immense responsibility for relaying orders, requesting and clearing fires, coordinating resupply, and most importantly representing their commanders.

Liaison officers were not a new concept nor were the expectations revolutionary. What was important was their role in facilitating task organization changes. Doctrine dictated that supporting units provide liaison officers to supported units, with the stipulation that the presence of a liaison officer does not relieve a commander

from ensuring that his subordinates understood his plan. The 1939 *Field Service Regulation Operations* outlines two areas of responsibility for liaison officers: learn the instructions of the gaining unit's commander and represent the views and concerns of their parent commander during deliberations. The *Staff Officers' Field Manual* assigned responsibility to the gaining commands to integrate the liaison officer into the planning process and tasks the parent commander with the responsibility for providing communications assets. Corps and army standard operating procedures expanded upon the doctrine with detailed guidance on composition and responsibilities.

Corps commanders considered liaison officers critical positions, and the officers selected to serve had to be bright, independent, and friendly in order to be effective. In addition to the higher-to-lower liaisons, various corps standard operating procedures specified requirements for field artillery, medical, engineer, air support, and logistics officers for corps level liaison, listing the composition by grade for each team. ⁷² In a time without real-time video communications, collaboration tools, or web-enabled common operating pictures, the liaison officer was the direct commander-to-commander representative and spokesman.

In practice, the liaison officers proved critical. The first two issues of *Combat Lessons*, a collection of tactical lessons learned from both theaters published by the War Department in 1944 and 1945, reinforced the importance of liaison officers. Comments from combat reports include:

"Select your best officers for liaison officers."

"All units recognized the necessity for assigning competent officers to liaison duties."

"We put our best people on the job as liaison officers."

"Liaison officers must be good officers and must receive special training prior to the time they are detailed if they are going to be of any use in battle."⁷³

Many operations reports and unit histories note that liaison officers played important support roles, such as keeping field artillery units updated on fire support coordination measures, directly receiving oral orders, and relaying instructions to their parent commanders. The General Board Reports also reflect the importance of the liaison officers, specifically in the reports from field artillery and G3 staff at theater, army group, and army levels. The G3 Section report lists the necessary attributes of the liaison officer: pleasant personality, energy, initiative, and fully informed. In the chaos of combat and rapid task organization changes, competent, personable, and trusted officers were necessarily to link units together, ensuring common understanding of the situation, and process the staff functions required to keep the army running.

Another interesting feature of the staff in World War II was that some technical staff officers also served as commanders of their component. Signal

Corps, Engineer, Medical, and other technical branches used a system that utilized the division or corps staff principals as troop commanders for division specialty units. This gave the staff officer a great deal more authority and simplified the process of coordination. It also ensured unity of command, as the technical unit would not have to report to multiple headquarters. As an example of how well it worked, the General Board Report from the engineers argued a return to that system after doctrine changed halfway through the fighting in Europe. ⁷⁶ For those staff sections without the additional command responsibility, the First Army commander delegated additional authority. Instead of having to issue all directives and coordination through operations channels, staff officers could direct, control, and coordinate the operations of army units within their specialty.



Figure 12: Primary staff officers of the 4th Armored Division (L to R) Maj. W. H. Barnes, G-1; Lt Col. T.D. Vesely, G-2; Lt. Col. V.C. Prichard, Chief of Staff; Gen H.w. Baird, CG; Lt Col. A.G. Smith, G-3; Lt. Col. R.X. Hacom, G-4; and Maj Douglas Cameron, aide. Pine Camp, NY April 1941. Image courtesy of U.S. Army Heritage and Education Center.

This gave them great flexibility, allowing rapid reaction to changing requirements or new task organization needs. If technical troops needed to shift within zones or reallocate supplies, the staff officer could issue orders directly.⁷⁷ This devolution of command responsibility was a novel solution and kept operations channels clear for the commander to direct large movements. With the increased

authority, support branches were able to make the mechanics of warfighting responsive to rapid changes in task organization.

Summary of Leadership

The American doctrine of combined arms and mission-type orders places a great deal of faith in subordinate commanders and staffs to operate in harmony with each other without significant controls. The shared doctrinal education encouraged commanders to gain flexibility and responsiveness vital to successful maneuver warfare by letting go, a risky proposition for an army that had grown from 200,000 to eight million in two years and relied so heavily on recently recruited soldiers. They were able to do this in great part because the United States Army was designed for rapid expansion and had dedicated the interwar years to building a cadre of professional Regular Army officers prepared to step up to large unit commands and staff positions. Having typically spent nearly 50 percent of their service in the school system, they shared a common understanding of how to organize and fight maneuver battles, and expected to operate in fluid command structures. The small size of the Regular Army officer corps engendered a well-developed sense of community.

This familiarity allowed senior commanders to fill key positions based upon their personal knowledge of a candidate's capabilities instead of relying upon blind boards viewing personnel records and inflated evaluation reports. Once selected, senior leaders expected these officers to perform and quickly removed those who failed. Mid-grade and junior Regular Army officers also filled critical roles, becoming highly prized as regimental commanders and key staff officers.

In the American initiative based system, division and corps commanders held a great deal of responsibility. Placing officers of proven ability at those levels was critical to enabling task organization changes in combat. In order to maintain momentum, commanders had to trust their subordinates to act independently yet in concert with the large operation, only possible with a combination of trust and common doctrinal foundation. All of this was possible because General Marshall sought and received the authority to select, test, and relieve division and corps commanders as he saw fit.

However, running the machinery of modern war also required staffs with the authority and flexibility to respond. Through the use of liaison officers, commanders were able to integrate both vertically and horizontally to support the rapid reorganization, using trusted surrogates who combined tactical knowledge and interpersonal skills in order to ensure their unit understood the larger operation. Assigning staff officers the dual function of commander facilitated the delegation of significant authority to allow the technical and support branches to anticipate requirements, respond quickly, and deliver effective support without burdening commanders with minutia.

The advantages of the Army school system and leadership combined particularly effectively in the positions of chief of staff, operations officers (G3), and intelligence officers (G2). Always filled by highly capable officers, typically drawn from the Regular Army and graduates of the Army school system, these three key positions were central to the operations of division and corps. Commanders relied upon these key staff officers to translate their vision into orders for subordinates, coordinate operations with higher headquarters, supervise the day-to-day activities of their units, and react to unforeseen opportunities or crises. These officers needed to know more than just their branch specialty; they had to be experts at combined arms operations, thoroughly understand sustainment, appreciate the technical limitations of every supporting branch, and solve complicated problems. The fact that the US Army was able to generate sufficient officers with the leadership and doctrinal knowledge to not only fill command positions, but also these critical staff billets in every division and above unit, demonstrates the foresight of the interwar system.

High quality leadership was the critical factor making rapid task organization possible. The best doctrine in the world is only as good as those who can implement it. The challenges of changing task organization while in contact with an enemy formation were daunting. To effectively integrate a new unit and employ it quickly requires a highly competent chain of command, supported by staff officers with initiative and authority. This does not happen in hierarchical organizations that rely upon controls to ensure subordinate compliance. It relies upon a high-quality officer corps, with trust that extends both up and down the chain of command, bred in common experience and a sense of close community. As Charles Kirkpatrick observed in his study of general officers, it was not the extraordinary few that made the American army successful, but the fact that the system was able to produce so many senior leaders capable of operating far above their experience level under the stress of combat.⁷⁹

Notes

- 1. Corlett's relief is a matter of some controversy. Hodges probably was looking for a reason to relieve Corlett and the failure to encircle the Germans at Aachen provided an opportunity; however, the official reason given was that his health was failing. Taaffe, *Marshall and His Generals*, 240–243; Edward J. Drea, "DAMH-RA Information Paper: Relief of Commanders Before and During World War II," August 14, 1991, US Army Center of Military History; Weigley, *Eisenhower's Lieutenants*, 363.
 - 2. Mansoor, The GI Offensive in Europe, 58.
- 3. Taaffe provides a detailed account of the decision process Marshall and his subordinates used for selection of every army and corps commander drawn from many of the same sources as this paper. Taaffe, *Marshall and His Generals*.
- 4. Forrest C. Pogue, *George C. Marshall: Ordeal and Hope 1939-1942* (New York: Viking, 1965), chap. IV.
- 5. The Army did directly commission a number of civilians to fill critical roles in mobilization, transportation, personnel management, and research due to their special skill set. Many of the existing general officers were assigned positions in stateside training units or coastal defense instead of being retired. Most served with great distinction and made huge contributions to the success of the entire Army. Kent Roberts Greenfield, Robert R. Palmer, and Bell I. Wiley, *The Organization of Ground Combat Troops*, United States Army in World War II (Washington, DC: Historical Division, Department of the Army, 1947), 49.
- 6. Steven E. Clay, *US Army Order of Battle 1919–1941: The Arms: Major Commands and Infantry Organizations, 1919–41*, vol. 1 (Fort Leavenworth, KS: Combat Studies Institute Press, 2010), 199.
 - 7. Millett and Maslowski, For the Common Defense, 365–367.
- 8. Kirkpatrick studied the careers of 22 V Corps General Officers. Their average time with troops was 9.8 years versus 10.58 years in school (3.9 as students and 6.68 as instructors). Kirkpatrick, "'The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 268; Wade, "World War II Division Commanders, Combat Studies Institute Report #7"; Berlin, "U.S. World War II Corps Commanders: A Composite Biography"; Schifferle, *America's School for War*.
- 9. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 270.
- 10. Chapter VIII of Watson provides detailed analysis of the considerations, deliberations with Congress, and the policies of officer promotion and selection. MG Russell was replaced by MG William H. Simpson in May 1942, who was subsequently replaced by Hobbs in September 1942 when Simpson was selected for higher command. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, 241–247; Pogue, *George C. Marshall: Ordeal and Hope 1939-1942*, 93; Hewitt, *Work Horse of the Western Front*, 5.
- 11. Between June and November 1941, 165 Regular Army Officers (1.3 percent of the officer corps) were removed under this policy. The National Guard and Reserve officers were also removed, however at a much lower rate and more typically reassigned rather than retired. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, 245; Pogue, *George C. Marshall: Ordeal and Hope 1939-1942*, 98.
- 12. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 250.

- 13. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, 260–261.
- 14. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 187.
- 15. Mansoor provides information on 30th Infantry Division. Palmer provides officer strength of a fully trained and over-strength infantry division as 796. Bradley gives the officer strength of a 1944 Infantry Division as 781. Mansoor, *The GI Offensive in Europe*, 70–71; Palmer, Wiley, and Keast, *The Procurement and Training of Ground Combat Troops*, 454; Bradley, *A Soldier's Story*, 564.
- 16. Greenfield, Palmer, and Wiley, *The Organization of Ground Combat Troops*, 53–54; Hewitt, *Work Horse of the Western Front*.
- 17. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 25.
- 18. Barry claims 80 percent of company grade billets were filled by OCS officers in the MTO. Carafano, *After D-Day*, 38; Miller, *Nothing Less Than Full Victory*, 20; Barry, *Battalion Commanders at War*, 92.
- 19. Palmer, Wiley, and Keast, *The Procurement and Training of Ground Combat Troops*, 92.
- 20. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 267.
- 21. The topic of Marshall using relief has been popular recently, with Tim Ricks leading a growing effort to call for more reliefs of our senior officer corps. It is important to note that the interwar period did not provide the same opportunity to evaluate leadership as the 1990s provided our current force. Between the multiple small-scale deployments and crucible of Combat Training Centers, every senior leader today has more experience leading units than any interwar officer. Pogue, *George C. Marshall: Ordeal and Hope 1939-1942*, 89.
 - 22. Mansoor, The GI Offensive in Europe, 23.
 - 23. Bradley, A Soldier's Story.
 - 24. Patton and Harkins, War as I Knew It.
 - 25. Hewitt, Work Horse of the Western Front, 5.
- 26. Colarusso and Lyle utilize Marshall's management of senior leadership immediately prior and during World War II as an example in their introduction. Michael J. Colarusso and David S. Lyle, *Senior Officer Talent Management: Fostering Institutional Adaptability* (U.S. Army War College, Strategic Studies Institute, February 2014), chap. 1, http://www.strategicstudiesinstitute.army.mil/.
 - 27. McNair, "Comments on the First Phase of the LA Maneuvers."
- 28. Courtney H. Hodges, "Comments on Carolina Maneuvers, November 1941," n.d., 34, Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 7), Eisenhower Presidential Library. J. Lawton Collins served as an observer at an earlier, Third Army exercise. His comments focus on the larger organizational and performance issues, as the exercise was intended to evaluate the concepts rather than certify a unit for combat. His base conclusion is that the exercise was very useful in providing lessons learned, the basic doctrine was fundamentally correct although needed refinement, and the Army was not yet prepared to fight German blitzkrieg battle. J. Lawton Collins, "Draft Notes on Comments on Third Army Maneuvers Louisiana," May 28, 1940, Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 47, Eisenhower Presidential Library.

- 29. Palmer, Wiley, and Keast, *The Procurement and Training of Ground Combat Troops*, 94.
 - 30. Greenfield, Palmer, and Wiley, The Organization of Ground Combat Troops, 50.
- 31. Reclassification procedures were initiated for 3 colonels, 5 lieutenant colonels, 5 majors, 14 captains, and 62 lieutenants prior to D-Day. Of these, 1 lieutenant colonel, 1 major, 3 captains, and 37 lieutenants received discharges. Hogan, *A Command Post at War: First Army Headquarters in Europe, 1943-1945*, 43.
- 32. The exact wording of the separation documents list: lack of personality traits (leadership, force, initiative, aggressiveness, good judgment, common sense); lack of professional qualifications (failure in combat); classification failure (assigned duties they were not qualified for); lack of adaptability (temperament or disposition opposed to service, inability to adapt to restrictions or requirements of service); selection failure (complete lack of officer qualities and should never have been commissioned, intelligence, personality, professional qualifications); lack of physical and mental stamina and lack of moral fiber (cowardice, combat exhaustion); psychoneurosis: predisposed to not be qualified mentally for service; avoidable undesirable characteristics or traits (alcoholism, lazy, indigent, negligent). The report identifies disposition numbers, but does not identify how many in each category other than in general terms. "General Board Reports: Reclassification and Demotions of Officers in European Theater of Operations Study Number 7," n.d., 6–10, Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 2, Eisenhower Presidential Library.
 - 33. Annual Report of the Commandant of the Command and General Staff School.
 - 34. Taaffe, Marshall and His Generals.
- 35. Both the 8th Infantry Division and 90th Infantry Division commanders were relieved after very short periods in command because of a perceived lack of aggressiveness. Hogan, *A Command Post at War: First Army Headquarters in Europe, 1943-1945*, 100–101; Weigley, *Eisenhower's Lieutenants*, 134.
- 36. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, 247; Greenfield, Palmer, and Wiley, *The Organization of Ground Combat Troops*, 48.
- 37. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 250.
 - 38. Mansoor, The GI Offensive in Europe, 22.
 - 39. Mansoor, The GI Offensive in Europe, 81.
- 40. Mark W. Clark, Senior Officers Debriefing Program: Conversations Between General Mark W. Clark and Lieutenant Colonel Forest S. Rittgers, Jr., interview by Forest S. Rittgers, Jr., Tape Transcript, October 27, 1972, sec. I page 120–123, USAMHI; Mansoor, *The GI Offensive in Europe*, 21.
- 41. Watson, *The War Department: Chief of Staff Prewar Plans and Preparations*, 260–261.
 - 42. Mansoor, The GI Offensive in Europe, 58.
- 43. Major General Robert S. Beightler, commander of the 37th Infantry Division who served in the Pacific was the only National Guard commander to serve the duration of the war in command. McLain was selected for corps command after leading the 90th ID in Normandy. Mansoor, *The GI Offensive in Europe*, 58.
- 44. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 2.
- 45. Officers included in Wade's study: Terry de la Mesa Allen, Edward M. Almond, Clift Andrus, A. V. Arnold, Paul W. Baade, Raymond O. Barton, Harold W. Blakeley,

- Alexander R. Bolling, Charles L. Bolte, Withers H. Burress, C. H. Corlett, Norman D. Cota, John B. Coulter, Louis A. Craig, John E. Dahlquist, Robert T. Frederick, James M. Gavin, Charles H. Gerhardt, William H. Gill, George W. Griner, Jr., Robert W. Grow, George P. Hays, Leland S. Hobbs, Stafford L. Irwin, Walter E. Lauer, Robert C. Macon, Harry J. Malony, William M. Miley, William H. H. Morris, Jr., Verne D. Mudge, Charles L. Mullins, John W. O'Daniel, Walter M. Robertson, Maurice Rose, Charles W. Ryder, Albert C. Smith, Donald A. Stroh, Innis P. Swift, Joseph M. Swing, Maxwell D. Taylor, Harry L. Twaddle, Orlando Ward, Issac D. White, John S. Wood, and Ira T. Wyche. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 12.
- 46. Kirkpatrick's study included the V Corps commander, division commanders assigned to V Corps, commanders of V Corps artillery, and Corps Chief of Staff: Leonard T. Gerow, Clarence R. Huebner, Clift Andrus, Edward H. Brooks, Waller M. Robertson, Raymond O. Barton, Stafford L. Irwin, Lunsford E. Oliver, Robert W. Hasbrouck, Donald A. Stroh, Louis A. Craig, John W. Leonard, Norman D. Cota, Charles H. Gerhardt, Leland S. Hobbs, Paul W. Baade, William W. Eagles, Emil F. Reinhardt, Waller Lauer, William C. Lee, Charles G. Helmick, and Henry J. Malchell. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 261.
- 47. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 3, 5.
- 48. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 261, 268.
- 49. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 6; Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 264.
- 50. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 265.
- 51. Ten were assistant division commanders, three were division artillery commanders, four were combat command commanders, four were brigade commanders, and one was a regimental commander. The other two came from staff assignments. Wade, "World War II Division Commanders, Combat Studies Institute Report #7," 7.
 - 52. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 3, 8.
- 53. James A. Van Fleet was the only corps commander who did not attend CGSC, he claimed because he was needed at the University of Florida where he was professor of military science and tactics and the football coach. McLain attended the three-month National Guard course instead of the year-long course. Corlett and Griswold graduated in the bottom half of their CGSC class. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 10.
- 54. Between the two world wars, 11 officers served as instructors at the military academy, 14 were instructors at the Infantry School, five taught at the Cavalry School, three served at the Field Artillery School, and two were on the faculty of the Coast Artillery School, 14 were instructors at the Command and General Staff School, 15 had tours at colleges and universities as ROTC professors of military science and tactics, and one was an instructor at the Army War College. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 12.
 - 55. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 14.
- 56. Griswold commanded the XIV Corps and Swift commanded I Corps in the Pacific. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 15.

- 57 Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 53–56.
- 58. The seven relieved from command were: Lloyd R. Fredendall, Ernest J. Dawley, John J. Lucas (possible medical), Gilbert R. Cook (medical), Charles H. Corlett (possible medical), General John Millikin, Manton S. Eddy (medical). The four promoted to higher commander were: Bradley, Eichelberger, Patton, and Truscott. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 16.
 - 59. Berlin, "U.S. World War II Corps Commanders: A Composite Biography," 2.
- 60. Two information papers completed by Dr. Drea from DAMH-RA studied the question of relief of division and corps commanders during and before World War II. His conclusion is that National Guard commanders were relieved at a higher rate than their Regular Army counterparts. The driving factor was not component, but age and educational background. Regular Army officers were younger and had the advantage of the professional school system. However, once in combat, relief was directly related to the performance of the unit, regardless if the circumstances were responsible. A new commander was deemed able to restore the morale and drive of the unit better than any other measure. Edward J. Drea and Wise, "DAMH-RA Information Paper: Historical Circumstances Surrounding the Relief of National Guard Commanders in World War II Mobilization," November 1, 1990, US Army Center of Military History; Drea, "DAMH-RA Information Paper: Relief of Commanders Before and During World War II."
- 61. Age was clearly a consideration for division and below commanders, but there are exceptions like Patton and Hodges who Marshall retained for command at higher levels.
- 62. Watson, The War Department: Chief of Staff Prewar Plans and Preparations, 250.
- 63. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 260.
- 64. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 100–101.
 - 65. Weigley, Eisenhower's Lieutenants, 134.
- 66. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 101.
- 67. Hodges, "First Army War Diary Maintained by His Aides," sec. 22 July, 11 August, 30 September.
 - 68. Weigley, Eisenhower's Lieutenants, 363.
- 69. Dual function or dual-hatted position: used to describe an individual who serves in two roles in the same activity. Per CJCSI 1330.05, 1MAY 2008. During WWII, specialty officers often served in the dual roles as a functional staff officer and commander of functional units. This practice continued for Signal and Military Intelligence officers in divisions until 2004 with the deactivation of division separate battalions. Those commanders also served as the Division G6 and G2 respectively.
 - 70. Operations (Tentative) (1939), 34.
 - 71. Staff Officers Field Manual: The Staff and Combat Orders, 34.
- 72. "XII Corps Staff Operational Procedures 12 August 1944 to May 1945," 3, 80–82; "XII Corps Artillery in Combat," n.d., 1, Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 8, Eisenhower Presidential Library; "XIII Corps Standard Operating Procedures, Change 1," 5, 7; "XIX Corps Standard Operating Procedures," 18, 24–25.

- 73. George Marshall, ed., "Combat Lessons Number 1: Rank and File in Combat: What They Are Doing, How They Do It" (U.S. Government Printing Office, 1944), N-14362.1, Combined Arms Research Library Digital Library, Fort Leavenworth, KS; George Marshall, "Combat Lessons 5: Rank and File in Combat: What They Are Doing, How They Do It" (Office, Chief of Staff of the Army, September 30, 1945), N-14362.1, Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- 74. "First Army Headquarters After Actions Report Initial Draft with Comments;" "First Army Headquarters Summary of Operations September and October 1944;" LtCol Clarence Beck, "1st Infantry Division Memorandum 'G3 Report of Operations 1 August to 31 August 1944, Inclusive," September 10, 1944, U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 69, Eisenhower Presidential Library; "4th Infantry Division, Division Artillery Unit History June to October 1944," n.d., U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 72, Eisenhower Presidential Library.
- 75. "General Board Reports: Field Artillery Operations, Study Number 61;" "General Board Reports: Organization, Functions, and Operations of G3 Sections in Theater Headquarters, Army Groups, Armies, Corps, and Divisions Study Number 25," 2–3.
 - 76. "General Board Report: Engineer Organization, Study Number 71," 7.
- 77. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 60; Elbridge Colby, The First Army in Europe, 91st Congress, 1st Session, Senate 91-25 (Washington, DC: U.S. Government Printing Office, 1969), 2.
- 78. The 30th Infantry Division's key individuals were: COL Richard W. Stephens, Chief of Staff; LTC Harold E. Hassenfelt, G3; and LTC Stewart L. Hall, G2. Unfortunately, no information was found which would identify their component or school background.
- 79. Kirkpatrick, "The Very Model of a Modern Major General' Background of World War II American Generals in V Corps," 260.

Chapter 4 Organization for Combat

A third factor that enabled task organization flexibility was the organizational design that guided the rapidly growing Army. Americans went into the First World War without a clear plan for large unit organization. One of the first tasks of mobilization in 1917 was to study the existing British and French systems of organization, and the United States "adopted the best of both foreign systems, with modifications to suit our psychology and problems peculiar to our own development." Leaders during the interwar years, including Marshall and McNair, were determined to design an organizational concept for any future conflict.

In the same manner as doctrine, the lessons of the First World War drove the initial unit design concepts of the interwar period. The interwar years afforded few opportunities outside the classroom to validate concepts in real exercises. Some experience came from viewing foreign wars, including officers like Captain Dan Moore who observed the German Army prior to declaration of war. Starting in 1940, the primary venue for validating these concepts shifted to large-scale force-on-force exercises, most famously known as the Louisiana Maneuvers, but which actually were held in many locations throughout the United States. Those experiences led the Army leadership to standardize unit formations instead of custom building units for specific missions.

Mirroring doctrine and long American experience, the infantry division was the base around which they built the supporting system. The result of this effort was an organizational structure designed to facilitate rapid changes in task organization, particularly the movement and support of infantry divisions.

The structure simplified task organization changes by assigning administrative responsibilities to the army headquarters, with corps and army group headquarters solely responsible for tactical control of assigned forces. Theater commanders provided the operational control of translating strategic intent into tactical action. Each division structure had integrated capability for fires, sustainment, and communications, and the supporting doctrine further mitigated the expected turmoil caused by task organization changes. The use of pooling reduced the footprint of each division, placing reinforcing capability at higher units.

The concept of pooling is central to understanding the flexibility of task organization. McNair was the driving force in the design of units in the immediate pre-war period, and he strongly believed that specialty forces could not encumber combat divisions. Any capabilities that were not constantly required placed further drain on the logistics required to maintain momentum on the battlefield. As combat divisions evolved, these functional units consolidated into non-divisional support units, available for allocation by armies and corps as the mission dictated.² Doctrine captured this concept in Field Manual 100-5 Operations:

For economy and flexibility in the assignment of tasks, the means not habitually required by a unit are pooled and organically assigned to a higher unit. These means may then be allotted to subordinate units in accordance with their requirements for particular operations.³

The effect was that the non-divisional troops outnumbered combat troops in the 1944 Army: 1,541,667 non-divisional soldiers to 1,174,972 soldiers in divisions of all types.⁴



Figure 13: First Army Maneuvers, 16th Infantry Regiment, Field Transmitter Receiver, July 13, 1942. Image courtesy of U.S. Army Heritage and Education Center.

This pooling concept had mixed results on the battlefield. Some units became so critical, like tank and tank destroyer units, that they were habitually assigned to divisions for the entire campaign. At the tactical level, the habitual relationship greatly enhanced the effectiveness of these units, as many units experienced problems integrating initially. Without a habitual relationship and a general lack of exposure between tank and infantry forces, interoperability suffered. Some of the problems were technical, like the incompatibility between tank and infantry radios. The ingenuity of soldiers solved some of these problems, for example by wiring

a telephone to the outside of tanks. Other problems were resolved by the tough instructor of combat.⁵ For some more specialized units like engineers, the concept worked well, and after action reviews recommended expanding the use of engineer group headquarters to control shifting forces.⁶

A definitive analysis on when to pool, habitually assign, or organically attach specialty units is difficult. McNair's decisions at best had a mixed record of effectiveness. Generally, those units whose specialty requires direct coordination or integrated support relationship tended to recommend organic assignment, where units who provided very specialized skills or could operate independently fared better as echelon above division assets. While outside the scope of this particular study, the effectiveness and lessons learned from pooling below the division level, specifically battalion and smaller specialty units, deserves further analysis.

Designed to Fight

Without standing up large unit headquarters during the interwar years, the organization and doctrine of these units was in large part theoretical. Students and faculty tested and developed those theories in the classrooms of Fort Leavenworth and the Army War College. The interwar operations doctrine consistently outlined the roles for various echelons, but in 1942, the Department of War published *Field Manual 100-15 Field Service Regulation Larger Units*. This manual assigned specific roles to the corps, army, and army group headquarters, which would guide the implementation in combat. By assigning administrative responsibility to the army, the corps focused on tactical operation and not the administrative and logistics responsibilities for the rotating set of units under its control. This was intended to keep the corps staff small enough to quickly move on a mobile battlefield.

The post-war reflections of leaders indicated the general belief that the corps and army organization and doctrine worked well, but that the army group suffered from lack of detailed doctrine and too limited responsibility – possibly from lack of American experience operating at this level. This allocation of responsibility made reallocation of divisions to corps within armies significantly simpler. The system also relied heavily upon pooling of specialized assets that provided corps and army commanders with the ability to weight their main effort with critical enablers.

Army doctrine designed the corps as a tactical headquarters to control mission specific subordinate units. In *Field Manual 100-15 Larger Units*, a corps consists of a headquarters, corps troops, and

a variable number of divisions allotted in accordance with the requirements of situation. The composition of the corps will depend upon its mission, the terrain, and the situation. The flexibility of its organization permits an increase or decrease in the size of the corps, or a change in the type of divisions and other nonorganic elements constituting the corps,

by the attachment or detachment of divisions and reinforcing units at any time during the operations.⁸

An army or other higher headquarters allocated these units, yet retained the administrative and sustainment responsibilities, freeing the corps to focus on tactical operations. As a tactical command headquarters, the corps staff was designed to be small and mobile, without the infrastructure to sustain the assigned forces. Administrative responsibilities like personnel and sustainment would require larger staffs more closely linked to fixed locations for communications needs. Instead, the corps commander focused on assigning missions and allotting reinforcing assets like tank destroyer, tank, artillery, engineers, and other special troops under his control.⁹

This is exactly how corps operated in the European Theater of Operations. Bradley assigned VII Corps as the main effort for Operation Cobra and allocated seven divisions and various supporting units to ensure that Major General J. Lawton Collins had sufficient combat power to exploit the planned breakout. ¹⁰ General Patton, as Third Army Commander, made similar allocations to Major General Cook's XIX Corps prior to exploitation operations in late August. ¹¹ General Hodges' First Army war diary records many conferences with the army group, army, and corps commanders in which the main topic was allocation of divisions. ¹² Appendix B provides task organization charts that show how senior leaders shaped the force from June to October 1944.

The "General Board Report on the Functions, Organization, and Equipment of the Corps Headquarters" concluded the doctrinal functions and organization of the corps headquarters were confirmed by operations in Europe. The only recommendation was to add additional staff functionality, primarily to support civil affairs operations.¹³ As with the discussion of the importance of the corps commanders, the corps was the key player in the task organization flexibility of the Army in Europe. As practiced in the school, specified in doctrine, and used on the battlefield, the corps bore the responsibility for receiving and fighting divisions.

If the corps was central to integrating the divisions into the tactical fight, the army's role was to provide the support necessary to keep the divisions effective. Like the corps, the army was not a fixed unit, but rather a headquarters designed to control corps, divisions, and special units as missions dictated. The verbiage in *Field Manual 100-15 Larger Units* parallels that used to prescribe corps' flexibility:

It is not desirable that a fixed organization be prescribed for the army. The number and kind of army corps and divisions such as armored, infantry, cavalry, and motorized, and additional combat troops and service elements from the War Department reserve or other sources, will be determined primarily by the mission, the terrain of operations, and the probable hostile forces.¹⁴

Like the corps, the army was a self-contained unit with tactical responsibilities. Unlike the corps, the army had responsibility for territorial and administrative functions. These distinctions are very critical in explaining the flexible task organization employed in Europe. As the element of operational maneuver, army commanders controlled the pace and direction of the campaign by allocation of divisions to their corps. Allocating sufficient combat power at the decisive points ensured that American forces maintained the tempo advantage and retained the initiative against the German armies. General Patton was famous for his race across France with Third Army, but all army commanders practiced operational maneuver. First Army's "After Action Review Initial Draft with Comments" contains a number of examples where operational maneuver drove a task organization change. In preparation for Operation Cobra, the army had to manage rotating units out of front lines, integration of incoming units, and reallocation of units to newly established corps. In preparation of incoming units, and reallocation of units to newly established corps.

Flexibility was critical. If the army was reliant upon static division and corps task organization, it would have been significantly more difficult to collect sufficient combat experienced units to lead the breakout operations. In a second example, during the breakout, First Army conducted a number of reorganizations to maintain forward momentum. As it moved south and southwest in an attempt to encircle German forces, First Army's leaders found the primary battles on their left flank. This caused an odd pattern of fronts and boundaries, where corps ran out of maneuver room and effectively "pinched out" of line. Sometimes this was deliberate to relieve an exhausted division, like the 82nd Airborne Division on the western coast of the Cotentin Peninsula during early July 1944. In other cases, it was done to free up forces for use elsewhere. In August, First Army pinched V Corps of the line in order to move it to a different sector.¹⁷

In the period between the landings in Normandy and the surrender of German forces, First Army would control seven different corps headquarters and 40 different divisions. Third Army also moved divisions around freely. For example, XII Corps reported that 15 different divisions served under their command, none for the entire period of combat, rather "being freely pulled in or out in accordance with the changing needs of the tactical or strategic (sic) situation." The dual role of tactical commander and administrative support placed a much greater burden upon the staff than anticipated by the original tables of organization. The "General Board Report on The Functions, Organization, and Equipment of Army Headquarters" focuses almost exclusively on the requirement to increase the size of the staff. It is clear that the key commander in making and supporting task organization changes was at the army level.

The American Army had virtually no experience with army group commands, yet attempted to define the roles and responsibilities of a headquarters well before the advent of the 12th Army Group on the continent of Europe. With only the 6th Army Group commanded by Lieutenant General Devers as the other United States-led army group in the entire war, the doctrine and experience was not very

deep. *Field Manual 100-15 Larger Units* assigned the army group a tactical mission, but without territorial or administrative responsibilities it was primarily a force provider.²¹ According to this doctrine, the army group commander

prepares plans for the group operations, allots to the armies additional means which have been provided by higher headquarters, assigns zones of action or sectors, and coordinates the movement of his major subordinate elements, such as armies, armored formations, combat aviation, and group reserves. He assigns missions and objectives to the armies or other major subordinate elements, but decentralizes the execution of tasks to his subordinates.²²

In reality, Bradley and his staff found themselves as involved in administrative matters as operational ones. The conclusion of the "General Board Report for Administrative Roles of the Army Group Headquarters" was that the lack of experience with Army Group headquarters prior to war led the doctrine to be theoretical, and not very detailed. The doctrinal concept of separating the administrative and tactical responsibilities at this level was flawed. In practice, it was hard to separate administrative functions from command, particularly when the primary function was allocation of forces to subordinate units.²³ While in theory the army group served to pool assets, in practice special units usually were allocated to the armies.²⁴ The organization and roles of the army group headquarters ensured its role in task organization changes was limited to Bradley's decision-making authority to allocate forces.

Corps and army headquarters played a key role in task organization changes. Their organization and fundamentals of employment were enshrined in doctrine and practiced in the classrooms of Command and General Staff School and the Amy War College for years. In combat, they proved to be critical to maintaining tempo. Army groups, with much less doctrinal depth and less exposure to the rigors of the classroom, became a different animal than intended. Having covered the three large unit organizations that made the decisions on allocation of forces and controlled units, the discussion will now shift towards the role three supporting systems had on task organization changes.

Supporting the Fight

Supporting units and staff faced significant challenges when command relationships changed. Fire support innovations during the interwar years resulted in more flexibility to mass fires quickly, freeing fixed allocation of assets at all echelons. The centralized sustainment and logistics systems, controlled by theater commanders through Communications Zone commanders, allowed divisions a great deal of autonomy and improved their ability to operate independently. Tying everything together, communications doctrine supported changing headquarters. Other specialties also contributed to the flexibility, including engineer support, civil affairs, intelligence collection and analysis, or administrative functions. However, focusing on the first three critical functions provides insight into how the

Army enabled flexible task organization in how supporting branches developed in the interwar years.

Many authors have addressed fire support in depth, and this study will focus only on key interwar period innovations that facilitated the ability to provide accurate fires while limiting the impact of task organization changes.²⁵ The first innovation was the creation of fire direction centers, which greatly improved the ability to mass fires. The introduction of accurate maps, firing charts, target reference points, and battalion-level fire direction centers meant units could quickly and accurately mass fires. This broke the direct support link and enabled the concept of general and reinforcing support that enabled massed fires.²⁶ Doctrine recognized this concept as a major enabler of flexibility.



Figure 14: American Howitzers Shell German Forces Retreating near Carentan, France, July 11, 1944. Image courtesy of US National Archives.

Then as now, artillery fire possesses a high degree of flexibility. Field Artillery is capable of intervening over a zone of great width and depth, and of rapidly shifting and concentrating its fire without changing its positions. This characteristic makes it possible to concentrate the fire of large masses of Field Artillery under a common fire direction.²⁷

The second major innovation was the pooling of artillery. The previous system of a fixed artillery brigade structure, as used in the First World War, was replaced

by a system of pooling assets in the army in artillery groups. The army would assign artillery groups to corps artillery headquarters for each operation, allowing the fire support to match the allocation of infantry divisions and the specific needs of the operation. Instead of a fixed size, the artillery groups could detach or receive additional battalions as needed.²⁸ This ability to pool resources and link fire support officers at every level to mass fires provided a system whereby the requesting unit and supporting unit needed no formal ties. The corps standard operating procedures reviewed for this study each included extensive sections on fire support and liaison requirements to support this system.²⁹

Nearly every major operation relied upon this fire support system. During Operation Cobra, First Army reinforced the main effort VII Corps with nine heavy battalions, five medium battalions, and seven light battalions for a total of 258 non-divisional guns and more than 1,000 guns in all. In comparison, First Army allocated VIII Corps 108, XIX Corps 100, V Corps 98 non-divisional guns each.³⁰

The General Board Reports reflect the extraordinary success of this system, universally claiming the importance of American firepower. The conclusion of the "General Board Report on Field Artillery Operations" states that the field artillery flexibility and ability to mass fires was "quite frequently responsible for success of an operation." It does criticize doctrine for lack of detail at the corps and army level, resulting in corps commanders developing different procedures. This complicated cross-attachment of field artillery units, since there was not sufficient time for units to relearn unit specific procedures in combat. This critique supports the conclusion that effective task organization requires more than just doctrine, quality leaders, or specific organization, but a combination of all three factors. The flexibility gained from these fires innovations ensured front line units received support even during changes of task organization.

Sustaining the massive forces cutting across Europe was one of the biggest challenges to the American forces. With limited port facilities, long lines of communications along limited road networks, and the need to keep the pace as fast as possible to prevent the Germans from forming a new defensive line, logistics was a central concern of every senior leader in theater. Both the Command and General Staff School and War College focused heavily on logistics in their courses.³³ Logistics was never a limiting factor in making task organization changes. One of the main reasons was the organizational structure described earlier. The corps and army group headquarters were not responsible for the logistics or administrative support to those units allocated to them.³⁴ Instead, divisions drew resupply direct from army level or Service of Supply depots in the Communication Zone.³⁵

Very shortly after First Army arrived on the continent, it centralized logistics and relieved the corps of the mission of supporting their divisions.³⁶ During Operation Cobra, logistics helped the Americans overcome shortcomings and failures in operational leadership by sheer mass. Because divisions had the capability to draw their own sustainment, they were able to tap directly into the theater-level

system to draw support, greatly simplifying the operational logistics system.³⁷ Of course, this system also kept the corps and army group commander out of the loop on sustainment issues, and there is evidence that many of the corps injected themselves into the reporting chain by receiving copies of the reports going to army and sometimes establishing corps supply depots.³⁸ The General Board Reports by logistics units did not discuss the impact of task organization changes on the system, but instead focused their discussion on how to keep up with fast moving units with enough supplies – understandably a more important concern of the logisticians immediately after the war.³⁹ This very seemingly simple solution of skipping levels of command when assigning logistics responsibility had significant positive impacts in simplifying supply system.



Figure 15: Signal Corpsman Private Warner Aho Stringing Wire, 4th AD 144th Armored Signal Company, January 29, 1945. Image courtesy of U.S. Army Heritage and Education Center.

The solution to the communications issues was an even simpler concept than the logistics system. In an era where the primary means of communication for large unit headquarters was wire for telephones and teletypes, maintaining networks between constantly changing units was a massive problem. Even during the early days of Normandy, units reported that 95 percent of their communications went over wire, and divisions and corps were very reluctant to rely upon radio

communications.⁴⁰ Doctrine provided a deceptively simple solution – responsibility for establishing communications would be from higher to lower. *Field Manual 100-5 Operations* lays out responsibility for the senior commander to provide the links to his subordinates, identify responsibility for adjacent units, and supporting units to link to supported units. To facilitate this but allow subordinate commanders some freedom to select their own headquarters location, the senior commander would designate an axis of communications upon which the subordinate would be free to establish, then report, their headquarters location.⁴¹

Clearly, this required significant sized signal units at each level, as they built and operated networks across Europe. In a six-week period between 7 August 1944 and 12 September 1944, 59th Signal Battalion supporting VIII Corps installed 7,250 miles of wire. 32nd Signal Battalion maintained a daily average of 3,327 miles per day from June to November 1944 – accomplished by only 100 men distributed in many small teams that followed behind the front line forces. Eventh Army reported that during the entire movement covering 400 miles in 30 days, they were never out of communication with VI Corps. In fact, First Army, 4th Infantry Division and many of the individual commanders reflect in their after action reports that they had few problems with communications.

The General Board Reports confirmed this conclusion, reflecting that the signal doctrine was sound, but communications sections were insufficiently manned for the tasks they were assigned in combat.⁴⁵ The ability of these soldiers to maintain communications despite the challenges of constant task organization changes was critical. Communications enabled the flexible mission command style seen in this study. Commanders utilized the reliable communications to higher, subordinate, adjacent, and supporting commanders to react to changing situations. Commanders did not tie subordinates to planning timelines and constraints, as they could be updated on the changing situation and subordinate commander's actions as they happened. Commanders were free to operate with the mission command parameters. Possibly more important, the solid communications links facilitated the staff coordination required to support operations. Commanders could pick up a telephone and give direct verbal guidance to a new subordinate, intelligence sections could provide updates on the threat in the new area, fire supporters could request fires from general support units, and logisticians could request resupply from army depots. None of the other functions would have been able to respond as effectively if the communications network failed.

Based upon their experience in the First World War, the interwar leaders built organizations, assigned roles, and developed supporting doctrine to enable rapid task organization of divisions. Splitting the responsibility for administrative matters from tactical control at the divisions, corps, and army level allowed greater independence and fewer staff functions to reestablish with each change. The supporting branches developed innovations and doctrinal concepts knowing the challenges they were likely to face. The success of fires, sustainment, and communications in the rapidly changing environment of the European Theater of Operations

in 1944 is a testament not only to the soldiers who executed, but the visionaries who forecasted the need well beforehand.

Notes

- 1. Matheny, Carrying the War to the Enemy, 28–30; Faulkner, The School of Hard Knocks, 163.
- 2. Greenfield, Palmer, and Wiley, *The Organization of Ground Combat Troops*, 273–278.
 - 3. Operations (1941), 3; Field Service Regulations, Larger Units.
 - 4. Greenfield, Palmer, and Wiley, The Organization of Ground Combat Troops, 278.
- 5. Parkin, "Employment of the Tank Destroyer Battalion in an Infantry Division;" Weigley, *Eisenhower's Lieutenants*, 77, 1261; Beck, "1st Infantry Division Memorandum 'G3 Report of Operations 1 August to 31 August 1944, Inclusive;" Mansoor, *The GI Offensive in Europe*, 161; "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15;" "General Board Report: Organization, Equipment, and Tactical Employment of Tank Destroyer Units, Study Number 60;" "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48."
 - 6. "General Board Report: Engineer Organization, Study Number 71."
- 7. While there were divisions and corps structures during the interwar years, they were rarely manned in any significant strength nor did they serve a tactical warfighting role.
 - 8. Field Service Regulations, Larger Units, para. 146.
 - 9. Field Service Regulations, Larger Units, para. 146–148; Operations (1941), 2–3.
- 10. "History of VII Corps July 1944-October 1944," n.d., Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 5, Eisenhower Presidential Library.
- 11. Gilbert Cook, "War Diary July 1942-September 1945," n.d., see August 12, 1944 Entry, Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 4, Eisenhower Presidential Library.
- 12. Hodges, "First Army War Diary Maintained by His Aides," see entries for June 13th, June 15th, July 8th, August 1st, August 5th, August 11th, August 12th, August 17th, August 20th, August 24th, September 10th, September 24th.
- 13. "General Board Reports: Functions, Organization, and Equipment of Corps Headquarters and Headquarters Company, Study Number 23," 10.
 - 14. Field Service Regulations, Larger Units, para. 131.
 - 15. Operations (1941), 2–3; Field Service Regulations, Larger Units, para. 132.
- 16. "First Army Headquarters After Actions Report Initial Draft with Comments," sec. IV.E. Operations 26 June to 24 July.
- 17. Interestingly, this AAR credits the Command and General Staff School with teaching the "pinch out" maneuver in the classroom exercises, despite the lack of historical examples. At the time, students apparently derided this maneuver as unrealistic, but the AAR gives multiple examples of its use in combat. "First Army Headquarters After Actions Report Initial Draft with Comments," sec. VII Comments.
- 18. Fourteen infantry divisions served one tour, ten infantry divisions served two separate tours, three infantry divisions were in and out of First Army three times, ten different armor divisions, two airborne divisions during major operations, and at one time two coalition divisions (51st British Highlander and 2nd French Armored). "First Army Combat Operations Data Europe 1944-1945," n.d., 8, Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 25), Eisenhower Presidential Library.

- 19. George Dyer, VII Corps Spearhead Patton's 3rd Army (VII Corps Historical Association, 1947), iv.
- 20. "General Board Reports: Functions, Organization, and Equipment of Army Headquarters and Headquarters Company, Study Number 24."
 - 21. Field Service Regulations, Larger Units, para. 127–128.
 - 22. Field Service Regulations, Larger Units, para. 126.
- 23. "General Board Reports: Study of the Administrative Functions of the Army Group Headquarters, Study Number 29," n.d., Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4, Eisenhower Presidential Library.
 - 24. Operations (1941), 3.
- 25. For further information on development of fires in World War II see: Lewis J. Gorin, *The Cannon's Mouth: The Role of U.S. Artillery During World War II* (New York, N.Y.: Carlton Press, 1973); Bruce I. Gudmundsson, *On Artillery* (Westport, Conn: Praeger, 1993); J. B. A. Bailey, *Field Artillery and Firepower*, An Association of the U.S. Army Book (Annapolis, Md: Naval Institute Press, 2004).
- 26. Carafano, *After D-Day*, 43; Dastrup, "History of the US Army Field Artillery School from Birth to the Eve of World War II," 10.
 - 27. Operations (1941), 8.
 - 28. Carafano, After D-Day, 43.
- 29. "XIX Corps Standard Operating Procedures;" "XIII Corps Standard Operating Procedures, Change 1;" "XII Corps Staff Operational Procedures 12 August 1944 to May 1945."
- 30. Weigley, *Eisenhower's Lieutenants*, 151; "General Board Reports: Field Artillery Operations, Study Number 61."
 - 31. "General Board Reports: Field Artillery Operations, Study Number 61," 106.
 - 32. "General Board Reports: Field Artillery Operations, Study Number 61," 108.
- 33. Matheny, *Carrying the War to the Enemy*, 255; "Army War College Command Course Lectures 1940;" Mansoor, *The GI Offensive in Europe*, 22.
 - 34. Field Service Regulations, Larger Units, 51.
- 35. Quartermaster Field Manual: Quartermaster Operations; Quartermaster Service in Theater Operations, Quartermaster Field Manuals, FM 10-10 (Washington, DC: War Department, 1942); Ordnance Service in the Field, Ordnance Field Manual, FM 9-5 (Washington, DC: War Department, 1942).
- 36. Hogan, A Command Post at War: First Army Headquarters in Europe, 1943-1945, 27.
 - 37. Carafano, After D-Day, 3.
- 38. "General Board Reports: Supply Functions of Corps, Study Number 28," 1; "XII Corps Staff Operational Procedures 12 August 1944 to May 1945"; "XIX Corps Standard Operating Procedures;" "XIII Corps Standard Operating Procedures, Change 1."
- 39. "General Board Reports: Mechanics of Supply in Fast Moving Situations, Study 27;" "General Board Reports: Study of the Administrative Functions of the Army Group Headquarters, Study Number 29;" "General Board Reports: Supply Functions of Corps, Study Number 28."
 - 40. "Communications in France," Signal Corps Information Letters, 1944, 2, 6.
 - 41. Operations (1941), 34-35.
- 42. "First Army Signal Service," *Signal Corps Information Letters*, April 1945, 24–25.

- 43. "Seventh Army Signals," Signal Corps Information Letters, December 1944, 14–15.
- 44. "First Army Headquarters After Actions Report Initial Draft with Comments;" "4th Infantry Division, Action Against Enemy After/After Action Reports," July 22, 1944, U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 2, Eisenhower Presidential Library; Collins, *Lightning Joe*; Patton and Harkins, *War as I Knew It*; Bradley, *A Soldier's Story*.
- 45. "General Board Reports: Signal Corps Personnel, Training, and Command and Administrative Structure, Study Number 112;" "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48;" "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15."

Chapter 5 Conclusion

Task organization changes at the division and corps level were a common feature of American operations in Europe in 1944. The ability to shift forces allowed commanders a great deal of flexibility in application of combat power that contributed to the Allied success against the German Army. This study proposes that this flexibility was intentionally built into the American way of war and embedded in the doctrine and training of high quality leaders who led organizations designed to facilitate the rapid reorganization in combat. This flexibility was critical during the breakout from Normandy, the pursuit across France, and set the conditions that ultimately led to the defeat of Nazi Germany.

The American army operated within a common doctrinal understanding that allowed interoperability between commanders and staffs. The army built the doctrine upon the lessons of the First World War and it remained relatively stable during the decades between wars. This doctrine stressed the importance of fire and maneuver with combined arms formations. It also promoted the concept of mission-type orders. Instead of detailing the movements of subordinate leaders and establishing elaborate controls to centralize decisions at the highest level, the American system enforced pushing initiative down the chain of command by focusing on telling subordinates what to do, not how to accomplish their mission. With a demanding and progressive school system, the entire officer corps learned and put the doctrine to use in practical exercises designed to help leaders identify strong performers. This school system became a major part of the officer management system, separating those with potential for high command from those without.

In this type of system, the role of officers, especially senior leaders, was critical. The peacetime Regular Army had to expand quickly, and choosing the right people for command was a major task. The Regular Army officers became the base upon which the rest of the army was built. Highly sought after, they would fill the vast majority of senior level commands, nearly all critical staff positions above the regimental level, and were responsible for training the influx of National Guard and volunteer officers. General Marshall also sought and received the power to promote and separate officers, unconstrained by peacetime practices of seniority, allowing him to shape the officer corps to meet his belief that the coming conflict called for men of high character and physical vigor. He personally selected division and higher commanders, reflecting his belief that quality commanders were necessary to maintain the discipline and drive necessary to beat the highly professional German and Japanese Armies. These senior commanders, nearly all of whom knew each other, quickly integrated themselves into new formations because of their tactical competence, leadership ability, and existing personal relationships. This focus on quality of commanders does not, however, negate the importance of the staff, particularly the liaison officers and technical staff officers

who served the dual function of commanders, who were critical in integrating units as they moved between headquarters.

The final factor that this work studied was the organization of the Army itself. The division was a self-contained unit and the primary unit for tactical operations. The corps served as a tactical headquarters, designed to accept attachments of divisions and support units based upon the mission parameters for each operation. Without any administrative responsibilities, the corps became the key fighting organization on the battlefield fully engaged with managing the combined arms fight. The success of task organization lay in the ability of the corps to integrate new divisions rapidly and effectively. The Army picked up the responsibility for managing the sustainment and allocation of divisions based upon the strategic maneuver plan. Army commanders managed huge systems, concentrated on maintaining momentum and tempo, and left the tactical fight to the corps commanders. Innovations developed in the interwar years allowed artillery to mass fires and allocate units in support of the army commander's priorities. Removing administrative and sustainment responsibility from the corps headquarters simplified the process of moving divisions between corps, as the divisions drew from army and theater level support directly. Finally, the ability of the Signal Corps to maintain communications networks between headquarters was a critical enabler of the entire system.

The conclusions of this study are based upon a very specific study of American divisions and corps during the first few months of operation on the continent of Europe during World War II. It is possible that the study of different echelons, time periods, or theaters would bring additional factors to light. It was also biased by the sources available at the Eisenhower Presidential Library and the Combined Army Research Library. However, the period studied does offer some unique factors which suggest that it may be an ideal time and location to study. The geography of northwestern France and the introduction of new divisions into the fight on a regular basis presented the American Army with a situation in which they had to be flexible in its task organization. The other option was to stand up new corps with untested divisions and then conduct passage of lines as units culminated or spread out from the narrow breakout point — a less desirable option for many reasons. While not comprehensive, this study may serve as the basis for further investigation into the US Army's ability to task organize in other theaters during this war.

The breakout from France was also one of the most challenging operational problems of the war. How to allocate forces and weight the main effort is a major component of operational art, and this study argues that in order for a commander to have options, the institution must build that flexibility into its education, personnel, and organizational plans. Doctrine is only good if those who will implement it understand and can apply it. Constantly changing terms and concepts defeats any efforts to indoctrinate the officer corps. The Army school system must also be the intellectual center of gravity for the institution. Every level of schooling is an opportunity to not only build the skills of the student, but also should serve to identify future leaders. Especially during interwar periods, the schools must be

rigorous and competitive. Finally, the Army must design the roles and systems to support rapid task organization, as flexibility in combat is constrained to a great deal by how units are designed.

The Army is currently facing major changes. The experiences in Iraq and Afghanistan have challenged many traditional beliefs, radically altering our doctrinal foundation, and resulting in a massive transformation in our organization. Some of these changes are very good. The brigade combat team is now a self-contained combined arms team along the lines of the World War II division. The restoration of a third maneuver battalion and additional engineer support will only strengthen this role. There is a clear parallel in doctrine between the flexibility of the World War II corps headquarters and the current divisions. Division headquarters are designed to integrate brigade combat teams allocated for specific missions much like the corps did for divisions and other enablers. The division also lacks the ability to provide direct logistics support — a factor that many today lament, but this study suggests it is a positive attribute as it allows brigades to draw support directly from theater assets regardless of under which division they temporarily report. The emphasis on mission command philosophy directly reflects the intent behind mission type orders, one of the key factors driving flexible task organization.

However, there are also trends that the Army should seriously examine as it resets. The lack of stability in doctrine threatens the ability of the officer corps to operate with a common understanding. In a speech to the students of the School of Advanced Military Studies in 2012, Combined Arms Center Commander, Lieutenant General David Perkins, acknowledged this challenge. ¹ In response, there is an effort with the Army Doctrine 2015 program to stabilize the big concepts and push information out to the force.

Ensuring the quality of the officer corps is also a big concern. The return to a selective Command and General Staff Course is a good first step, but it must be matched with an effort to raise the standards in that school in order to challenge the students and identify the most capable. Changing the culture of the Army to encourage high quality active duty instructors will be very difficult. Our current organization also fails to allocate sufficient personnel to serve as liaison officers, requiring units to support this unauthorized or unsupported position by internal reallocation, typically from whoever is available instead of making a conscious decision on who would be best suited. Another concept worth revisiting is empowering staff officers with command responsibility for technical branches as was the practice for signal corps and military intelligence battalion commanders in divisions prior to 2004 and transformation.

With the elimination of signal, military intelligence, and military police units at the brigade and division level, this dual function system may offer a solution to the challenges of training and administration of these small specialty units. Assigning both staff and command responsibility to intelligence and signal corps officers may provide the training, readiness, and oversight currently lacking. Current Army

organization also relies heavily upon the concept of pooling critical resources, a concept that had mixed results in World War II and deserves its own in-depth analysis to identify ways to improve the current system. Reducing the capabilities, particularly of engineer, anti-armor, and communications assets at the brigade combat team and division is likely to have negative effects on the next battlefield. The challenges of the Field Artillery community to provide mass fires is a major topic, with many monographs and articles discussing that problem, yet a solution is elusive.

Finally, the rigidity of our current communications networks does not facilitate the rapid movement and task organization flexibility that is necessary. Designed to support large static headquarters, the Warfighter Information Network – Tactical must undergo significant changes to become the mobile and flexible network needed. In a time of decreasing funding, the research and equipment to make this happen is unlikely. However, just as the Signal Corps overcame the constraints of the wired network, our current Signal Corps soldiers can overcome the technical limitations of their equipment if given the opportunity and incentive to train for the mission. The effect of providing each unit with their own communications assets has greatly improved their capability, but the responsibility of establishing communications links from higher to lower, which remains in doctrine, is in need of reinvigoration.

Addressing these challenges should be a major focus of the US Army in the coming years. Regaining the flexibility that proved dominant in World War II is critical – not only does our doctrine still rely upon it, it is fundamentally what makes the US Army more capable than any other force in the world.

Notes

1. David Perkins, "Doctrine 2015" (Presentation to School of Advanced Military Studies, Fort Leavenworth, KS, November 28, 2012).

Appendix A

US Army Corps and Division Task Organization Changes European Theater of Operations, June – October 1944

This appendix is a computation of the author's, drawn from Official Records, chronologies, operations reports, unit records, and secondary sources. Often there were noted discrepancies and the dates listed reflect when the preponderance of sources record the unit left the previous command.

Corps Task Organization Changes

1 August 3rd Army Stands Up

24 August XV Corps from 3rd Army to 1st Army 27 August XIX Arty in support of XV Corps

29 August XV Corps in reserve

5 September XV Corps from 1st Army to 3rd Army (Protect Flank)

5 September VIII Corps attached from 3rd Army to 9th Army

29 September XV Corps from 3rd Army to 7th Army
10 October VIII Corps from 9th Army to 3rd Army
22 October XIX Corps from 1st Army to 3rd Army
VIII Corps from 3rd Army to 1st Army

Division Task Organization Changes

1st Infantry Division

15 July from V Corps to VII Corps

2nd Infantry Division

19 August from V Corps to VIII Corps

4th Infantry Division

15 July from VII Corps to VIII Corps 20 July from VIII Corps to VII Corps 22 August from VII Corps to V Corps

5th Infantry Division

13 July arrived to V Corps

3 August from V Corps to XX Corps

9th Infantry Division

6 August 12 CT/9 ID to 30 ID

25 October from VII Corps to V Corps

26th Infantry Division

1 October new unit to XII Corps

28th Infantry Division

28 July Arrives to XIX Corps

10 August CCA/2AD and 109 RG from 28 Infantry Division

28 August from XIX Corps to V Corps

29th Infantry Division

14 Junefrom V Corps to XIX Corps11 Augustfrom XIX Corps to V Corps17 Augustfrom V Corps to VIII Corps21 Septemberfrom VIII Corps to XIX Corps

30th Infantry Division

15 June arrive to XIX Corps

15 July from XIX Corps to VII Corps 28 July from VII Corps to XIX Corps 4 August from XIX Corps to V Corps 5 August from V Corps to VII Corps

6 August 12 CT/9 ID from 9th Infantry Division

13 August from VII Corps to XIX Corps

26 August from XIX Corps, First Army to XV Corps, Third Army 29 August from XV Corps, Third Army to XIX Corps, First Army 22 October from XIX Corps, First Army to XIX Corps Ninth Army

35th Infantry Division

8 July arrived to XIX Corps

27 July from XIX Corps to V Corps 15 August from V Corps to XII Corps

44th Infantry Division

17 October arrive XV Corps

79th Infantry Division

10 June arrive to VII Corps

1 July from VII Corps to VIII Corps

8 August from VIII Corps to XV Corps, 1st Army 29 August from XV Corps, 1st Army to XIX Corps 6 September from XIX Corps to XV Corps, 3rd Army

80th Infantry Division

5 August arrived to XII Corps, 3rd Army
7 August from XII Corps to XX Corps
8 August from XX Corps to XV Corps
10 August from XV Corps to XX Corps

17 August from XX Corps, 3rd Army to V Corps, 1st Army 26 August from V Corps, 1st Army to XII Corps, 3rd Army

82nd Airborne Division

19 June from VII Corps to VIII Corps 13 July from VIII Corps to England

2 September assigned to XVIII Corps for Operation Market Garden

83rd Infantry Division

2 July arrive to VII Corps

15 July from VII Corps to VIII Corps 21 September from VIII Corps to XX Corps 11 October from XX Corps to VIII Corps

90th Infantry Division

9 June from VII Corps to VIII Corps 1 August from VIII Corps to XV Corps 8 August from XV Corps to V Corps 26 August from V Corps to XX Corps

94th Infantry Division

9 October from 9th Army (Rear) to 12th Army Group

95th Infantry Division

10 October new unit to XX Corps

101st Airborne Division

15 June from VII to VIII

26 June from VIII to 1st Army Reserve 8 July from 1st Army Reserve to England

17 September joined XVIII Airborne Corps for Operation Market Garden

102nd Infantry Division

25 October new to XIX Corps

2nd Armored Division

12 June arrive to V Corps

18 July from V Corps to VII Corps 2 August from VII Corps to XIX Corps 7 August from XIX Corps to VII Corps 13 August from VII Corps to XIX Corps 18 August from XIX Corps to V Corps 19 August from V Corps to XIX Corps 28 August from XIX Corps to XV Corps 29 August from XV Corps to XIX Corps

22 October from XV Corps, 1st Army to XV Corps, 9th Army

3rd Armored Division

26 June arrives to XIX Corps

15 June from XIX Corps to VII Corps

4th Armored Division

17 July arrives to VIII Corps

15 August from VIII Corps to XII Corps

6 September CCB/4AD from XII Corps to XX Corps

5th Armored Division

28 August from XV Corps to V Corps

6th Armored Division

19 July arrives to VII Corps

21 September from VIII Corps to XII Corps 25 September from XII Corps to XX Corps

29 September from XX Corps to VI Corps 7th Armored Division 25 September from XX Corps to XIX Corps 9th Armored Division 15 October from II Corps to VIII Corps 10th Armored Division

10 October from VIII Corps to 3rd Army

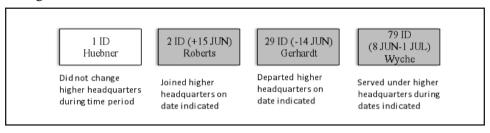
Allied Units

8 September
 2 French Armored Division from V Corps to XV Corps
 28 September
 1st Belgian Brigade from 2nd British to XIX Corps
 1st Belgian Brigade from XIX Corps to 2nd British Corps

Appendix B

Task Organization Changes by Phase June – October 1944

Blocks highlighted in grey indicate units who changed task organization during the period covered. Dates in parentheses are the dates a unit was attached (+) or detached (-). All dates are 1944. The callout box highlights key operational events during the period. The names in each box reflect the commander of the unit during that time.



Charts

- US Task Organization for D-Day and Initial Normandy Battles: 6 June 13 July 1944
- 2. US Task Organization for Operation Cobra: 14-30 July 1944
- 3. US Task Organization for Breakout: 1-23 August 1944
- 4. US Task Organization for Exploitation: 23 August 15 September 1944
- 5. US Task Organization for Operation Market Garden: 15-30 September 1944
- 6. US Task Organization Into Germany: 1-31 October 1944

US Task Organization for D-Day and Initial Normandy Battles 6 June – 13 July 1944

Task Organization Changes

8 JUN

35 ID from V to XIX

10 JUN

79 ID arrives VII

12 JUN

2 AD arrives to V

14 JUN

29 ID from V to XIX

15 JUN

101 ABN from VII to VIII

19 JUN

90 ID from VII to VIII

82 ABN from VII to VIII

26 JUN

3 AD arrives to XIX

8 JUL

35 ID from V to XIX

13 JUL

82 ABN from VIII to England

5 ID arrives to V

Key Events

6 June: D-Day landings on the northern coast of France.

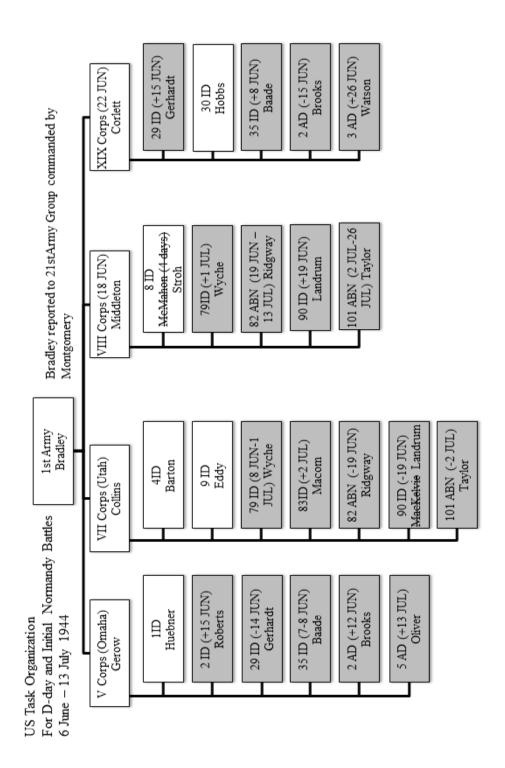
13 June: First German V-1 rocket attack on Britain.

18 June: US troops isolated Cherbourg, France.

27 June: US troops liberate Cherbourg, France.

3 July: Battle of the Hedgerows in Normandy.

9 July: British and Canadian troops capture Caen, France.



US Task Organization Operation Cobra 14-30 July 1944 4 US Corps 15 US Divisions

Task Organization Changes

14 ЛЛ.

29 ID from V to XIX

15 JUL

83 ID from VII to VIII

4 ID from VII to VIII

30 ID from XIX to VII

1 ID from V to VII

3 AD from XIX to VII

18 JUL

2 AD from V to VII

19 JUL

6 AD arrives to VIII

20 JUL

4 ID from VIII to VII

27 JUL

35 ID from XIX to V

28 JUL

28 ID arrives to XIX

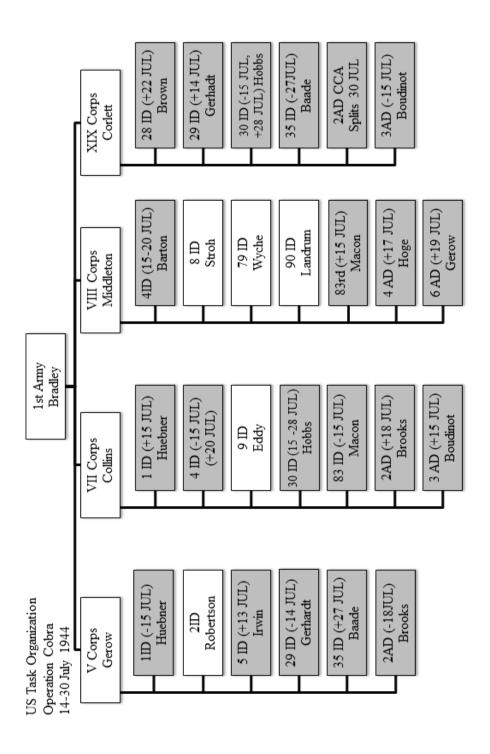
30 ID from VII to XIX

Key Events

18 July: US troops reach St. Lô, France. British Operation Goodwood.

20 July: British Operation Goodwood ends.

25-30 July: Operation Cobra (US troops break out westof St. Lô).



US Task Organization Breakout 1-23 August 1944

Task Organization Changes

1 AUG

12th Army Group activated 3rd Army stands up 90 ID from VIII to XV 2 AUG 2 AD from VII to XIX 3 AUG 5 ID from V to XX 4 AUG 30 ID from XIX to V 5 AUG 30 ID from V to VI 6 AUG 12 CT/9 ID to 30 ID 7 AUG 80 ID arrives to XX 2 AD from XIX to VII 8 AUG 79 ID from VIII to XV 80 ID from XX to XV 10 AUG 80 ID from XV to XX 11 AUG 29 ID from XIX to V **13 AUG** 30 ID from VII to XIX 2 AD from VII to XIX 15 AUG

29 ID from V to XII 80 ID from XX to V, 1st Army

17 AUG

18 AUG 2 ID from V to VIII

4 AD from VIII to XII 35 ID from V to XII

90 ID from XV to V

2 AD from XIX to V

19 AUG 2 AD from V to XIX 22 AUG 4 ID from VII to V

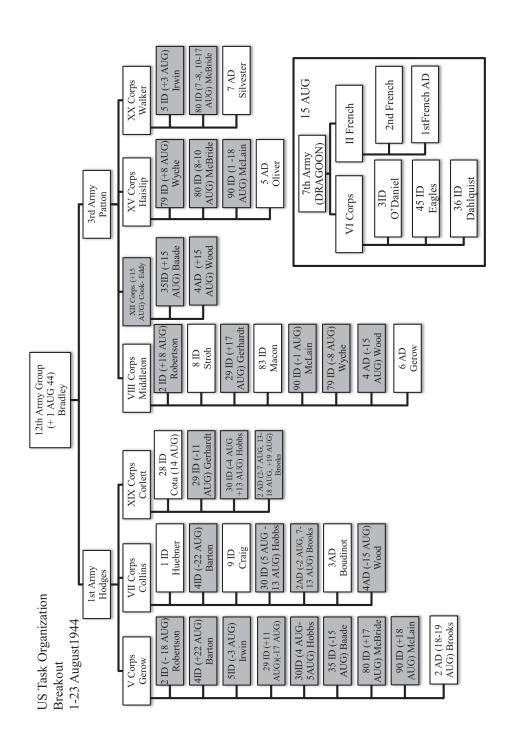
Key Events

1 August: 3rd Army Begins Exploitation towards Brittany and the Seine River.

7 August: Germans begin a major counter-attack toward Avranches. 15 August: Operation Dragoon begins (the Allied invasion of Southern France).

19 August: Resistance uprising in Paris.

20 August: Allies encircle Germans in the Falaise Pocket.



US Task Organization Exploitation 23 August – 15 September 1944

Task Organization Changes

24 AUG

XV from 3rd Army to 1st Army

26 AUG

80 ID from V to XII

90 ID from V to XX

30 ID from XIX to XV

27 AUG

XIX Artillery in support of XV

28 AUG

28 ID from XIX to V

2 AD from XIX to XV

5 AD from XV to V

29 AUG

2 AD from XV, 1st Army to XIX

30 ID from XV, 1st Army to XIX

79 ID from XV, 1st Army to XIX

XV Corps in reserve

5 SEP

9th Army activated

XV from 1st Army to 3rd Army (protect flank)

VIII attached from 3rd Army to 9th Army

6 SEP

79 ID from XIX, 1st Army to XV, 3rd Army

CCB/4 AD from XII to XX

8 SEP

2 FR AD from V to XV

Key Events

25 August: Liberation of Paris. Eisenhower Assumes Command on Continent. Broad Front advance.

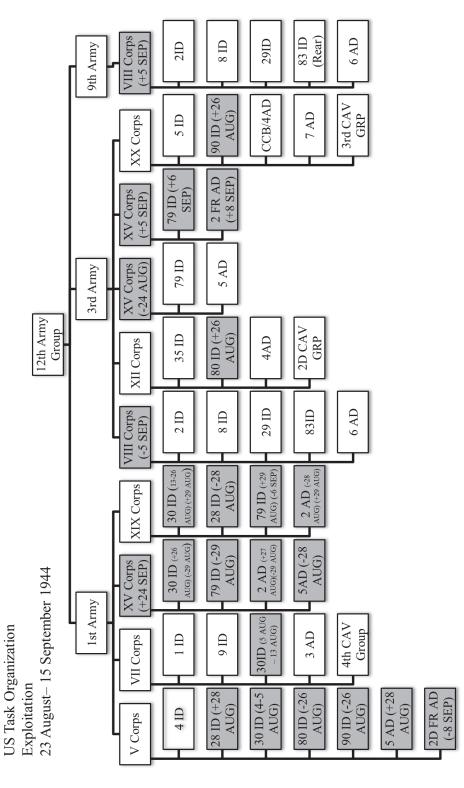
28 August: US troops cross the Marne and take Meaux.

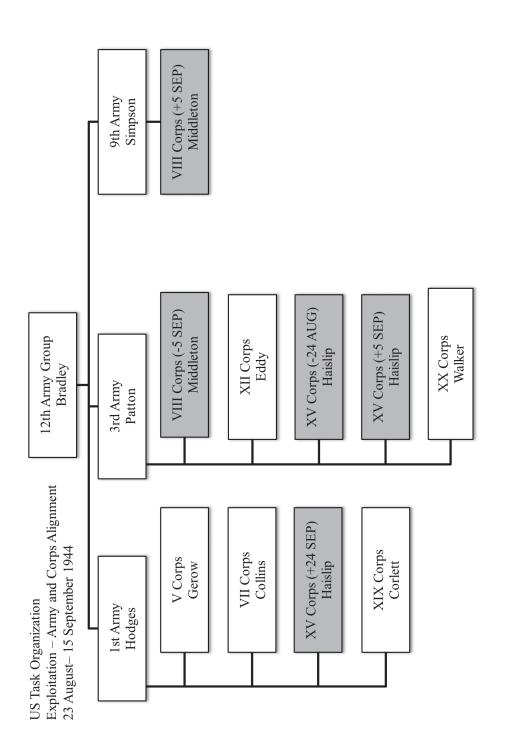
1-4 September: Verdun, Dieppe, Artois, Rouen, Abbeville, Antwerp and Brussels liberated by Allies.

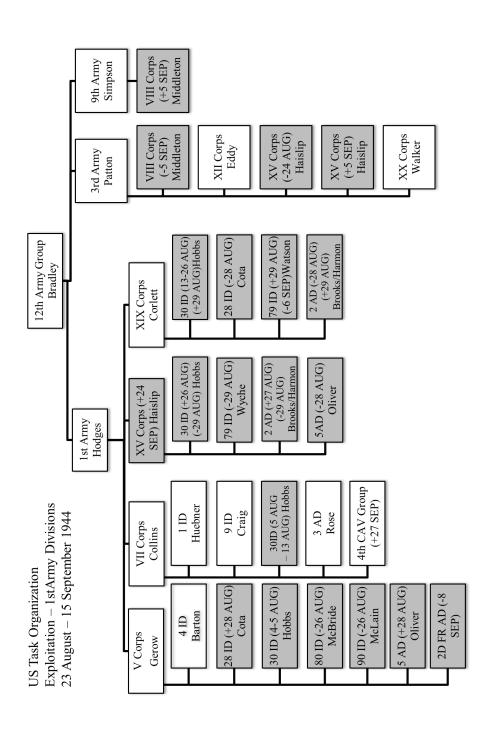
5 September: US 3rd Army crosses the Meuse River.

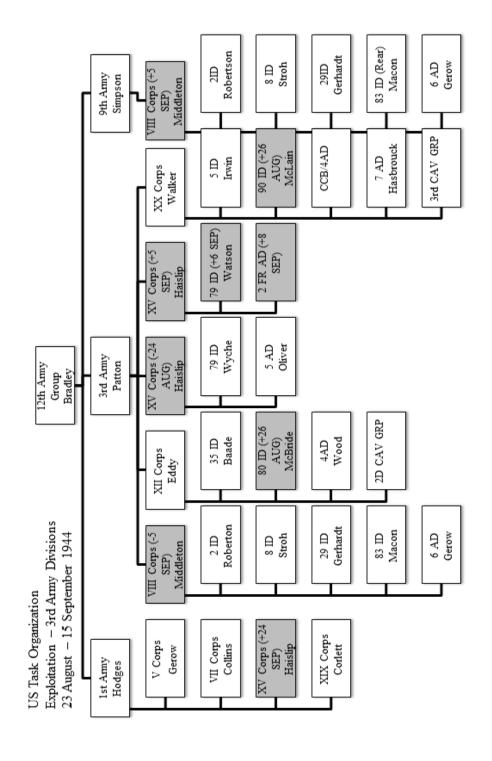
7 September: US Third Army crosses the Moselle River.

13 September: US troops reach the Siegfried Line.

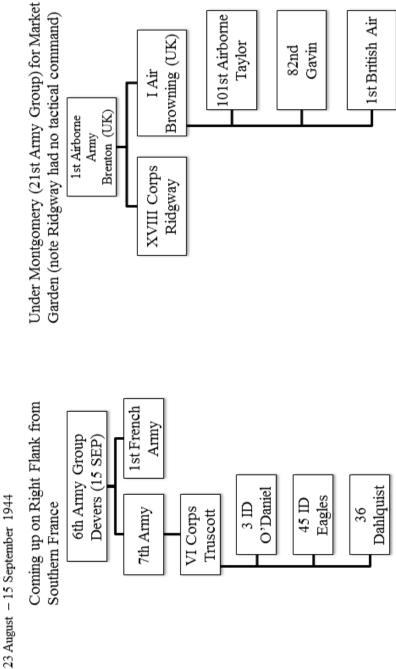








Exploitation - Separate Army Groups US Task Organization



101st Airborne

Taylor

Browning (UK)

I Air

1st British Air

Gavin 82nd

US Task Organization Operation Market Garden 15-30 September 1944

Task Organization Changes

21 SEP

83 ID from VIII to XX

29 ID from VIII to XIX

6 AD from VIII to XII

25 SEP

6 AD from XII to XX

7 AD from XX to XIX

28 SEP

1st Belgian BDE from 2nd British to XIX

29 SEP

XV from 3rd Army to 7th Army

6 AD from XX to VI

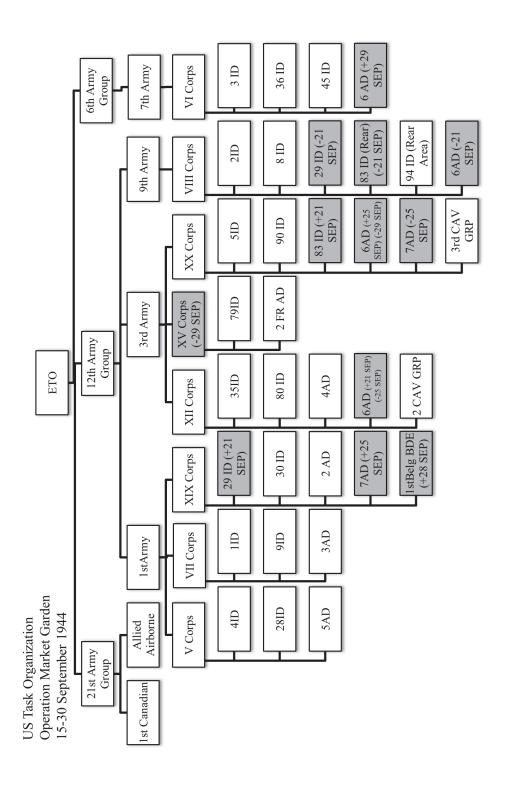
As of 15 SEP, Eisenhower had a total of 3 Army Groups, 8 Field Armies, 55 Divisions (of which 4 US Armies, 20 US ID, 6 US AD, 2 Airborne Divisions).

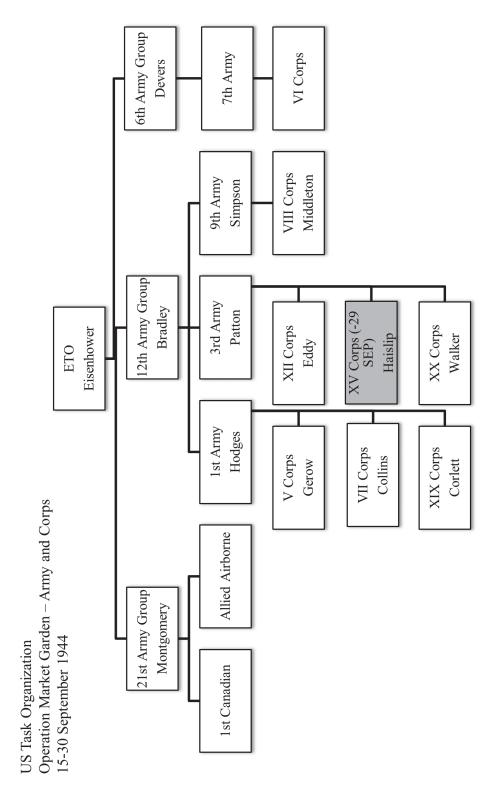
Key Events

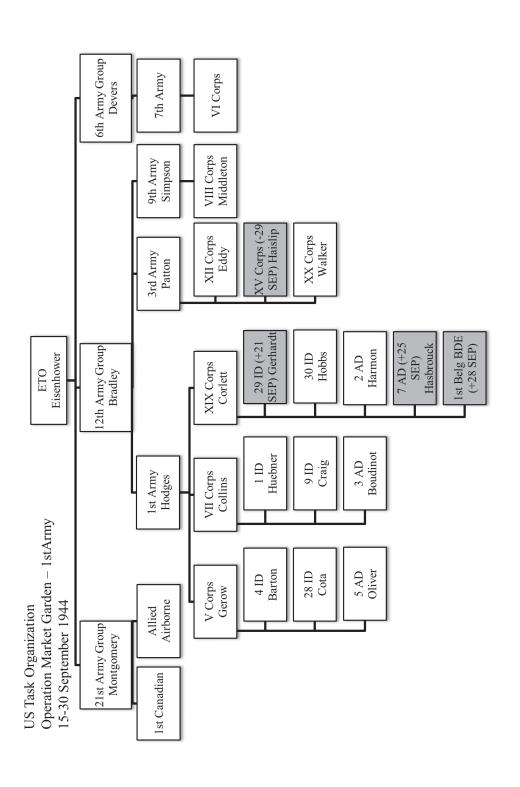
17-25 September: Operation Market Garden (Allied airborne assault on

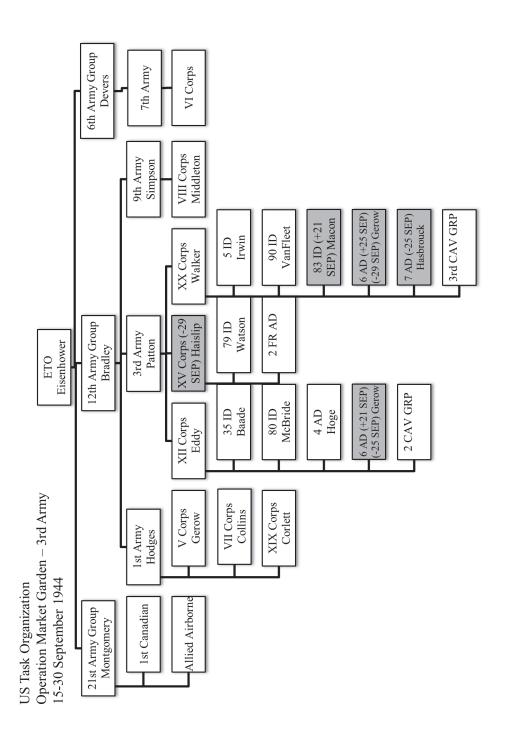
Holland).

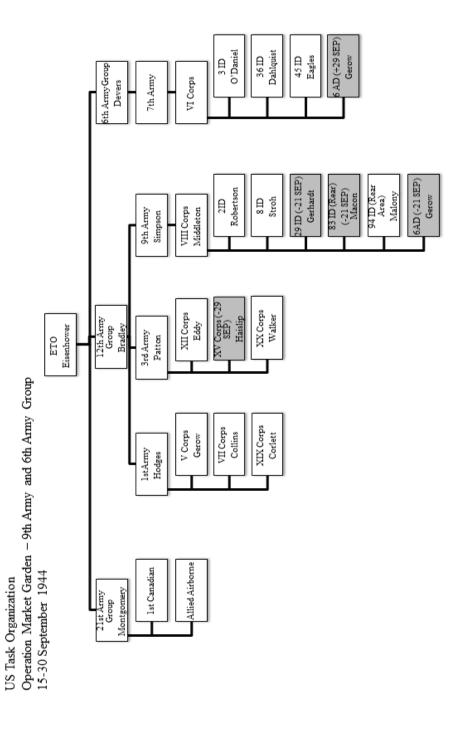
18 September: The US Ninth Army finally takes Brest.











US Task Organization Into Germany 1-31 October 1944

Task Organization Changes

1 OCT

26 ID new unit to XII

8 OCT

1st Belgian BDE from XIX to 2nd British

9 OCT

94 ID from 9th Army (rear) to 12th Army Group

10 OCT

VIII Corps from 9th Army to 3rd Army

10 AD from VIII Corps to 3rd Army

95 ID new unit to XX

VIII Corps from 9th Army to 3rd Army

11 OCT

83 ID from XX to VIII

15 OCT

9 AD from II to VIII

17 OCT

44 ID arrives to XV Corps

22 OCT

VIII Corps from 3rd Army to 1st Army

XIX Corps from 1st Army to 3rd Army

25 OCT

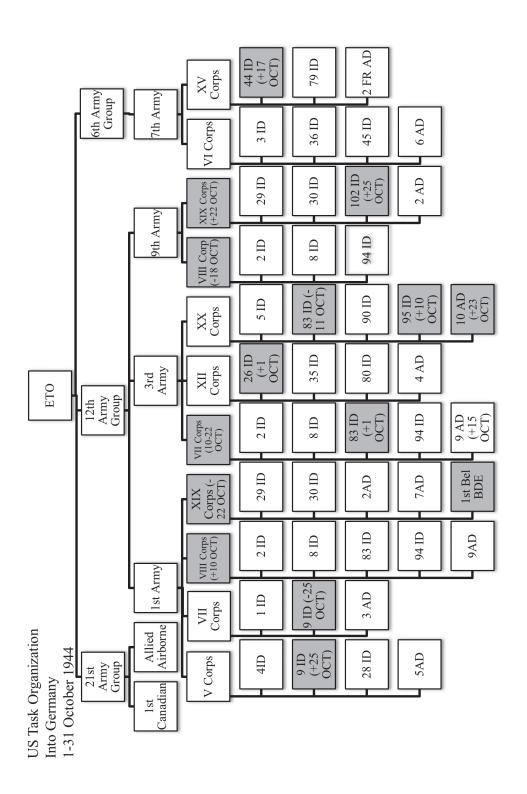
102 ID new to XIX

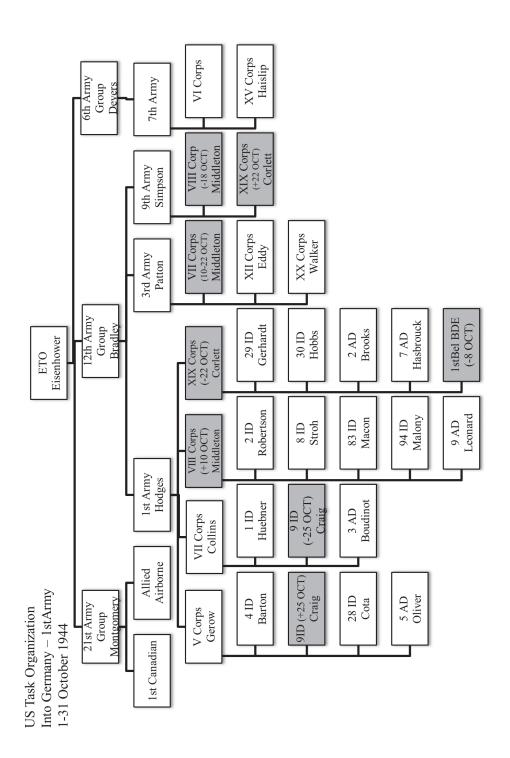
9 ID from VII to V

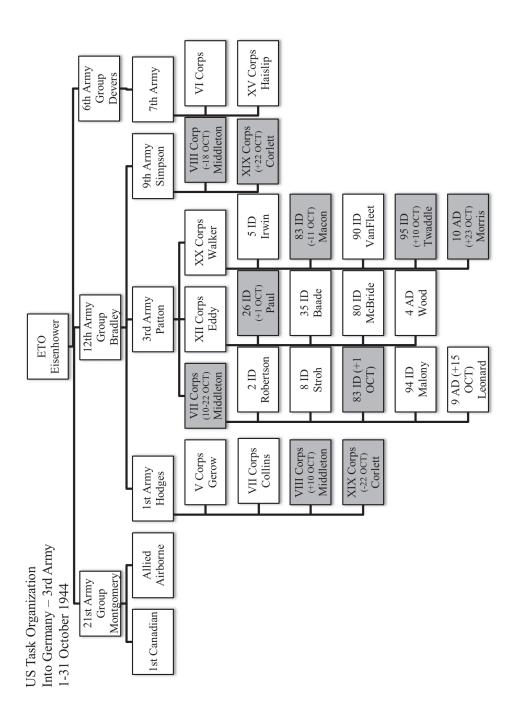
Key Events

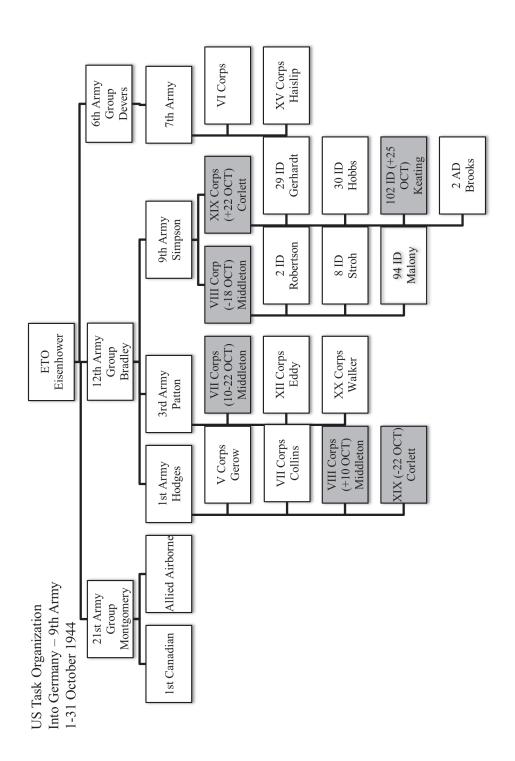
3 October: The US Third Army resumes its attack on Metz for the next 10 days.

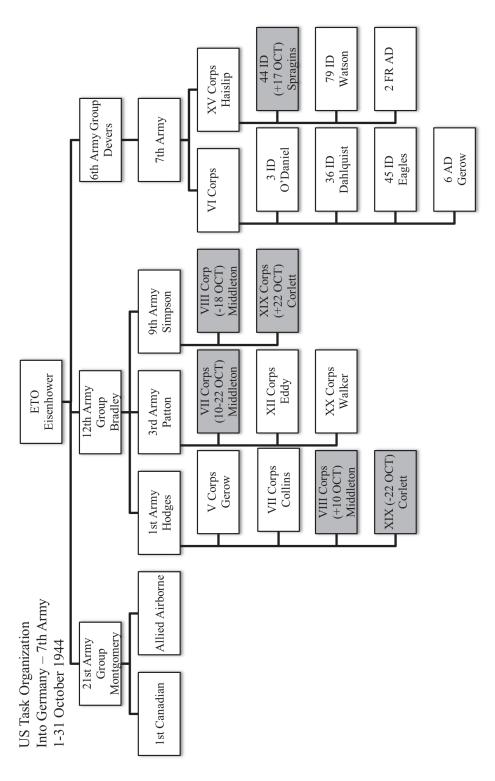
21 October: Massive German surrender at Aachen, Germany.











Appendix C Glossary

- Army (capitalized): The Army of the United States of America, includes the Regular Army, National Guard, and any other federally activated military forces.
- army (lowercase): Designation for a group of corps under one unit. In World War II, the army had both tactical and administrative responsibilities.
- Army group (lowercase): Designation for a group of armies under one unit. In World War II, the army group was a tactical unit with no administrative responsibilities
- Army War College: The Army's senior formal school, typically focused on training large unit tactics and strategy. Students are drawn from all specialties and typically includes representatives from other branches of service.
- corps (lowercase): Group of divisions and other attached units under one units control. In World War II, the corps was a tactical warfighting unit and not a standing organization.
- Combined arms: The synchronized and simultaneous application of arms to achieve an effect greater than if each arm was used separately or sequentially. (ADRP 3-0)
- Command and General Staff School: The Army's intermediate level formal schooling, typically focused at providing staff officers for divisions and corps.
- Doctrine: A set of formal military principles or standards captured in a manual.
- General Staff College: Immediate precursor course to the War College, reestablished after the First World War.
- General Staff Course: Optional section year of instruction at Fort Leavenworth offered in the interwar years.
- General Service School: Immediate precursor course to Command and General Staff School.
- Interwar period: Period from end of the First World War in November 1918 to the beginning of World War II for American in December 1941.

- Massed fires: Fire from two or more batteries directed at a single point or target.

 Doctrine in the 1930s and 1940s referred to massed fires, but did not define the term.
- Mission-type orders: Practice of issuing field orders to subordinates that outline what needs to be done instead of detailing how to accomplish the mission. Intent is to encourage initiative and problem solving at the lowest level.
- Pooling: The practice of consolidating specialized equipment, units, or soldiers at a higher headquarters and distributing to subordinate units as needed for particular mission.
- Regular Army Officer: Those officers who served in the professional standing army, versus officers in the Army of the United States, which included the larger draftee forces and mobilized civilian officers. At this time, all West Point graduates and select Reserve Training Officer Course were Regular Army officers. Regular Army officers could hold dual ranks one their permanent rank in the Regular Army and a second, higher, rank in the Army of the United States, which could be revoked at the end of the war.
- School of the Line: First year of instruction offered at Fort Leavenworth, later called Command and General Staff Course.
- Task organization: A temporary grouping of forces designed to accomplish a particular mission. (ADRP 5-0)

Bibliography

Archival and other Primary Sources

- "1st Infantry Division Historical Report: Statistical Reports Re Organizations 1917-1945," n.d. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 72. Eisenhower Presidential Library.
- "4th Infantry Division, 4th Engineer Battalion After Action Report June to October 1944," n.d. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 91. Eisenhower Presidential Library.
- "4th Infantry Division, 4th Signal Company After Actions Report June to October 1944," n.d. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 121. Eisenhower Presidential Library.
- "4th Infantry Division, Action Against Enemy After / After Action Reports," July 22, 1944. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 2. Eisenhower Presidential Library.
- "4th Infantry Division, Attachments and Detachments," n.d. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 2. Eisenhower Presidential Library.
- "4th Infantry Division, Division Artillery Unit History June to October 1944," n.d. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 72. Eisenhower Presidential Library.
- "4th Infantry Division, Operations Orders and Transcripts of Oral Orders June to August 1944," 1944. U.S. Army, 4th Infantry Division After action reports, 1940-46 (RG 407) (Microfilm), Reel 67. Eisenhower Presidential Library.
- "30th Infantry Division After Action Reports." Accessed October 28, 2012. http://www.oldhickory30th.com/index.htm.
- "30th Signal Company." Signal Corps Information Letters, May 1945.
- "82nd Signal Company." Signal Corps Information Letters, February 1945.

- Annual Reports of the Commandant of the Command and General Staff School.

 Fort Leavenworth, KS: Command and General Staff College, 1924-1940.

 Digital Archive. Combined Arms Research Library Digital Library.

 http://cgsc.edu/carl/resources/archival/annualreports.asp.
- Armored Command Field Manual: The Armored Division. Field Manuals 17-100. Washington, DC: U.S. Government Printing Office, 1944.
- "Army War College Command Course Lectures 1940," n.d. Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 1. Eisenhower Presidential Library.
- Basic Field Manual Signal Communications. Field Manuals 24-5. Washington, DC: Government Printing Office, 1942.
- Beck, LtCol Clarence. "1st Infantry Division Memorandum "G3 Report of Operations 1 October to 31 October 1944, Inclusive," November 5, 1944.
 U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 69. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'G3 Report of Operations 1 August to 31 August 1944, Inclusive," September 10, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 69. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'G3 Report of Operations 1 July to 31 July 1944, Inclusive," August 5, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 69. Eisenhower Presidential Library.
- "1st Infantry Division Memorandum 'G3 Report of Operations 1
 September to 30 September 1944, Inclusive," October 5, 1944. U.S.
 Army, 1st Infantry Division: After action reports, 1940-48 (RG 407)
 (Microfilm), Reel 69. Eisenhower Presidential Library.
- Cash, James H. "The Operations of the 1st Infantry Division and the 30th Infantry Division in the Aachen Offensive, 2-21 October 1944 (Rhineland Campaign)." United States Army Infantry School, Fort Benning, GA, 1949. Donovan Research Library Digitized Monograph Collection. https://www.benning.army.mil/library/content/Virtual/Donovanpapers/wwii/STUP2/KerleyRalphA%20%20MAJ.pdf.

- Clark, Mark W. Senior Officers Debriefing Program: Conversations Between General Mark W. Clark and Lieutenant Colonel Forest S. Rittgers, Jr. Interview by Forest S Jr. Rittgers. Tape Transcript, October 27, 1972. USAMHI.
- Collier, BG John H., and BG Bruce Clarke. "Memorandum on Armored Division Organization 1948," 1948. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 1. Eisenhower Presidential Library.
- Collins, J. Lawton. "Draft Notes on Comments on Third Army Maneuvers Louisiana," May 28, 1940. Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 47. Eisenhower Presidential Library.
- ———. "Lecture 'The Concentration of Large Forces' Army War College, February 28, 1939," n.d. Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 42. Eisenhower Presidential Library.
- ———. "Speeches and Statements 1946-1949," n.d. Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 42. Eisenhower Presidential Library.
- Command and Staff Functions, Special Text No. 12. Fort Riley, KS: Army General School, 1948.
- "Communications in France." Signal Corps Information Letters, 1944.
- Communications in the Infantry Division. Field Manuals 7-24. Washington, DC: Government Printing Office, 1944.
- Cook, Gilbert. "Officer Education System," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 1. Eisenhower Presidential Library.
- ——. "War Diary July 1942-September 1945," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 4. Eisenhower Presidential Library.
- Cook, Gilbert, and George S Patton. "Cook-Patton Correspondence," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 3. Eisenhower Presidential Library.
- ——. "Cook-Patton Correspondence (part 2)," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 4. Eisenhower Presidential Library.

- Drea, Edward J. "DAMH-RA Information Paper: Relief of Commanders Before and During World War II," August 14, 1991. Washington, DC: US Army Center of Military History.
- Drea, Edward J., and Wise. "DAMH-RA Information Paper: Historical Circumstances Surrounding the Relief of National Guard Commanders in World War II Mobilization," November 1, 1990. Washington, DC: US Army Center of Military History.
- Employment of the Armored Division and Separate Armored Units (Tentative). Field Manuals 17-100. Washington, DC: U.S. Armored School, 1943.
- Eymer, LtCol C.M. "1st Infantry Division Memorandum 'Observations on Planning and Execution of Operation "Neptune," July 12, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 102. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'Report of Activities of the G4 Section from 1 to 30 September 1944," October 2, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 102. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'Report of Activities of the G4 Section from 1 July to 30 July 1944," August 4, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 102. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'Report of Activities of the G4 Section from 1 October to 31 October 1944," n.d. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 102. Eisenhower Presidential Library.
- ———. "1st Infantry Division Memorandum 'Report of the Activities of the G4 Section from 1 June to 30 June 1944," July 6, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 102. Eisenhower Presidential Library.
- Field Artillery Fundamentals Book 30. Fort Sill, OK: Field Artillery School, 1942.
- Field Artillery Tactical Employment. Field Manuals 6-20. Washington, DC: Government Printing Office, 1944.
- Field Service Regulation. Washington, DC: War Department, 1923.

- Field Service Regulations, Larger Units. Field Manuals 100-15. Washington, DC: U.S. War Department, 1942.
- "First Army After Actions Reports August to October 1944," n.d. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 – Box 28). Eisenhower Presidential Library.
- "First Army Combat Operations Data Europe 1944-1945," n.d. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 25). Eisenhower Presidential Library.
- "First Army Headquarters After Actions Report Initial Draft with Comments," April 15, 1945. U.S. Army, 1st Army Headquarters: Records 1943-1955 (73-19) Box 2. Eisenhower Presidential Library.
- "First Army Headquarters Summary of Operations September and October 1944," n.d. U.S. Army, 1st Army Headquarters: Records 1943-1955 (73-19) Box 3. Eisenhower Presidential Library.
- "First Army Signal Service." Signal Corps Information Letters (April 1945).
- Gara, LtCol William. "1st Infantry Division, 1st Engineer Combat Battalion Memorandum 'Report as Required by Army Regulation 34-105, Period 1 September to 31 September 1944," September 5, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG407) (Microfilm), Reel 125. Eisenhower Presidential Library.
- "General Board Report: Engineer Organization, Study Number 71," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 8. Eisenhower Presidential Library.
- "General Board Report: Organization, Equipment, and Tactical Employment of Tank Destroyer Units, Study Number 60," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 7. Eisenhower Presidential Library.
- "General Board Report: Organization, Equipment, and Tactical Employment of the Armored Division, Study Number 48," n.d. Records of the U.S.

- Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6. Eisenhower Presidential Library.
- "General Board Report: Signal Corps Operations, Study Number 111," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 11. Eisenhower Presidential Library.
- "General Board Report: Study of the Organization of the European Theater of Operations, Study Number 2," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 1. Eisenhower Presidential Library.
- "General Board Reports: Appointments and Promotions in European Theater of Operations, Study Number 6," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 1. Eisenhower Presidential Library.
- "General Board Reports: Field Artillery Operations, Study Number 61," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 7. Eisenhower Presidential Library.
- "General Board Reports: Functions, Organization, and Equipment of Army Headquarters and Headquarters Company, Study Number 24," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3. Eisenhower Presidential Library.
- "General Board Reports: Functions, Organization, and Equipment of Corps Headquarters and Headquarters Company, Study Number 23," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3. Eisenhower Presidential Library.
- "General Board Reports: Mechanics of Supply in Fast Moving Situations, Study 27," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4. Eisenhower Presidential Library.
- "General Board Reports: Organization and Equipment of Field Artillery Units, Study Number 59," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 7. Eisenhower Presidential Library.

- "General Board Reports: Organization, Functions, and Operations of G3
 Sections in Theater Headquarters, Army Groups, Armies, Corps, and
 Divisions Study Number 25," n.d. Records of the U.S. Army, Reports
 of the General Board USFET 1942-1946 (A69-1), Box 3. Eisenhower
 Presidential Library.
- "General Board Reports: Reclassification and Demotions of Officers in European Theater of Operations Study Number 7," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 2. Eisenhower Presidential Library.
- "General Board Reports: Signal Corps Personnel, Training, and Command and Administrative Structure, Study Number 112," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 11. Eisenhower Presidential Library.
- "General Board Reports: Study of the Administrative Functions of the Army Group Headquarters, Study Number 29," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4. Eisenhower Presidential Library.
- "General Board Reports: Tactics, Employment, Techniques, Organization, and Equipment of Mechanized Cavalry Units, Study Number 49," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6. Eisenhower Presidential Library.
- "General Board Reports: G1 Reports and Reporting Procedures in European Theater of Operations, Study Number 8," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 2. Eisenhower Presidential Library.
- "General Board Reports: Organization, Equipment, and Tactical Employment of Separate Tank Battalions, Study Number 50," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 6. Eisenhower Presidential Library.
- "General Board Reports: Organization, Equipment, and Tactical Employment of the Infantry Division, Study Number 15," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 3. Eisenhower Presidential Library.
- "General Board Reports: Supply Functions of Corps, Study Number 28," n.d. Records of the U.S. Army, Reports of the General Board USFET 1942-1946 (A69-1), Box 4. Eisenhower Presidential Library.

- "History of VII Corps July 1944-October 1944," n.d. Collins, J. Lawton: Papers, 1896-1975 (A71-19; 80-12; 80-12/1; 80-12/2; 82-6; 86-19) Box 5. Eisenhower Presidential Library.
- Hobbs, Leland S. "Tactical and Strategical Effects of the Development of the Fast Tank." CGSC Student Paper. Fort Leavenworth, KS, 1934. Individual research papers (IR) / Command and General Staff School. Combined Arms Research Library Digital Library.
- Hodges, Courtney H. "Comments on Carolina Maneuvers, November 1941," n.d. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 7). Eisenhower Presidential Library.
- ———. "First Army War Diary Maintained by His Aides," n.d. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 25). Eisenhower Presidential Library.
- ———. "War College Lectures 1930-1935," n.d. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86 Box 3). Eisenhower Presidential Library.
- The Infantry Journal, Infantry In Battle. Richmond, VA: Garrett & Massie, 1939.
- Kaune, P.N. "General Troy H. Middleton: Steadfast in Command." DTIC Document, 2011.
- Kerley, Ralph A. "Operations of the 2d Battalion, 120th Infantry (30th Infantry Division) at Mortain, France, 6-12 August 1944 (Personal Experience or a Company Commander) Type." United States Army Infantry School, Fort Benning, GA, 1950. Donovan Research Library Digitized Monograph Collection. https://www.benning.army.mil/library/content/Virtual/Donovanpapers/wwii/STUP2/KerleyRalphA%20%20MAJ.pdf.
- Marshall, George. "Combat Lessons 2: Rank and File in Combat: What They Are Doing, How They Do It." Office, Chief of Staff of the Army, September 30, 1945. N-14362.1. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- ——. ed. "Combat Lessons Number 1: Rank and File in Combat: What They Are Doing, How They Do It." U.S. Government Printing Office, 1944. N-14362.1. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- Marshall, S.L.A. "S.L.A. Marshall Letter to MG Leland S. Hobbs," March 16, 1946. http://www.30thinfantry.org/marshall_letter.shtml.

- McNair, Lesley J. "Comments on the First Phase of the LA Maneuvers,"
 November 21, 1941. Hodges, Courtney Hicks: Papers, 1904-65 (A70-86
 Box 3). Eisenhower Presidential Library.
- Mission Command. Army Doctrinal Reference Publications 6-0. Washington, DC: Department of the Army, 2012.
- Operational Terms and Military Symbols (ADRP 1-02). Army Doctrinal Reference Publications 1-02. Washington, DC: Department of the Army, 2012.
- Operations (1941). Field Manuals 100-5. Washington, DC: War Department, 1941.
- Operations (1944). Field Manuals 100-5. Washington, DC: War Department, 1944.
- The Operations Process. Army Doctrinal Reference Publications 5-0. Washington, DC: Department of the Army, 2012.
- Operations (Tentative) (1939). Field Manuals 100-5. Washington, DC: War Department, 1939.
- Order of Battle of the United States Army World War II: European Theater of Operations: Divisions. Paris, France: Office of the Theater Historian, 1945.
- Ordnance Service in the Field. Ordnance Field Manual FM 9-5. Washington, DC: War Department, 1942.
- Pamp, Frederic E. "XIX Corps: Normandy to the Elbe." XIX Corps Public Relations, N.D. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- Parkin, Fredrick H. "Employment of the Tank Destroyer Battalion in an Infantry Division," March 12, 1945. N8281. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- Perkins, David. "Doctrine 2015." Presentation to School of Advanced Military Studies, Fort Leavenworth, KS, November 28, 2012.
- Quartermaster Field Manual: Quartermaster Operations. Field Manuals 10-5. Washington, DC: Government Printing Office, 1945.

- Quartermaster Service in Theater Operations. Quartermaster Field Manuals FM 10-10. Washington, DC: War Department, 1942.
- "Seventh Army Signals." Signal Corps Information Letters, December 1944.
- Signal Corps Field Manual Signal Organizations and Operations in the Armored Division and Armored Corps. Field Manuals 11-17. Washington, DC: Government Printing Office, 1941.
- Signal Operations In Corps and Army. Field Manuals 11-22. Washington, DC: U.S. Government Printing Office, 1945.
- Staff Officers Field Manual: The Staff and Combat Orders. Field Manuals 101-5. Washington, DC: U.S. War Department, 1940.
- Swift, Eben. *Field Orders, Messages, and Reports*. Washington, DC: Government Printing Office, 1906.
- United States Army American Expeditionary Forces; Superior Board on Organization and Tactics. *AEF Report of Superior Board on Organization and Tactics*, 1919. Electronic File. Combined Arms Research Library Digital Library. http://cgsc.contentdm.oclc.org/cdm/ref/collection/p4013coll7/id/808.
- Wade, Lieutenant Colonel Gary. "World War II Division Commanders, Combat Studies Institute Report #7." Combat Studies Institute Press, N.D. Electronic File. Combined Arms Research Library Digital Library, Fort Leavenworth, KS, 1983.
- Wiggins, Capt Herbert. "1st Infantry Division, 1st Signal Company Memorandum 'Historical Report 1 June to 30 June 1944," July 3, 1944. U.S. Army, 1st Infantry Division: After action reports, 1940-48 (RG 407) (Microfilm), Reel 175. Eisenhower Presidential Library.
- "Wireheads in France." Signal Corps Information Letters, April 1945.
- "XII Corps Artillery in Combat," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 8. Eisenhower Presidential Library.
- "XII Corps Report of Operations August to September 1944," n.d. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 8. Eisenhower Presidential Library.

- "XII Corps Staff Operational Procedures 12 August 1944 to May 1945," October 29, 1945. Cook, Gilbert R.: Papers, 1908-1959 (A91-11 & A92-12) Box 9. Eisenhower Presidential Library.
- "XIII Corps Standard Operating Procedures, Change 1," August 21, 1944. N-13681. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.
- "XIX Corps Standard Operating Procedures," November 1944. N-13681.2. Combined Arms Research Library Digital Library, Fort Leavenworth, KS.

Journal Articles and Monographs

- Berlin, Robert. "U.S. World War II Corps Commanders: A Composite Biography." *Journal of Military History* 53 (April 1986): 147–167.
- Dastrup, Boyd L. "History of the US Army Field Artillery School from Birth to the Eve of World War II." *Fires* (February 2011).
- Hamburger, Kenneth E. "Learning Lessons in the American Expeditionary Forces." CMH Publication 24-1. Washington, DC: US Army Center of Military History, 1997.
- Kurz, Joseph. "General Matthew B. Ridgway: A Commander's Maturation of Operational Art." Monograph, School of Advanced Military Studies, 2011.
- McGlachlin, Major General Edward F. "The Army War College." *The Coast Artillery Journal* 57, no. 4 (October 1922): 287–305.
- Sisemore, James D. "Fort Leavenworth and Its Education Legacy; Recommendations for ILE." Monograph, School of Advanced Military Studies, 2012.

Books

- A History of the 90th Division in World War II. The 90th Division Association, 1946. http://www.90thdivisionassoc.org/90thDivisionFolders/90thhistorybook/histbkmainframe.htm.
- Ambrose, Stephen E. Citizen Soldiers: The US Army from the Normandy Beaches to the Bulge to the Surrender of Germany, June 7, 1944 May 7, 1945.

 New York, NY: Simon & Schuster, 1997.

- American Armies and Battlefields in Europe. Center of Military History Publication 23-24. Washington, DC: U.S. Government Printing Office, 1938.
- Army Leadership. Army Doctrinal Reference Publications 6-22. Washington, DC: Department of the Army, 2012.
- Atkinson, Rick. *An Army at Dawn: The War in North Africa, 1942-1943*. 1st ed. The Liberation Trilogy v. 1. New York, N.Y.: Henry Holt & Co, 2002.
- ———. *The Guns at Last Light: The War in Western Europe, 1944-1945.* 1st ed. The Liberation Trilogy v. 3. New York: Henry Holt and Co, 2013.
- _____. *The Day of Battle: The War in Sicily and Italy, 1943-1944*. 1st ed. The Liberation Trilogy v. 2. New York: Henry Holt, 2007.
- Bailey, J. B. A. *Field Artillery and Firepower*. Annapolis, Md: Naval Institute Press, 2004.
- Barry, Steven Thomas. *Battalion Commanders at War: U.S. Army Tactical Leadership in the Mediterranean Theater, 1942-1943.* Lawrence, KS: University Press of Kansas, 2013.
- Biddle, Stephen D. *Military Power: Explaining Victory and Defeat in Modern Battle*. Princeton, NJ: Princeton University Press, 2004.
- Bradley, Omar N. A Soldier's Story. Toronto: Random House, 1951.
- Brower, Charles F. *George C. Marshall: Servant of the American Nation*. New York: Palgrave Macmillan, 2011.
- Builder, Carl H., Steven C. Bankes, Richard Nordin. *Command Concepts: A Theory Derived From the Practice of Command and Control*. Santa Monica, CA: Rand, 1999.
- Carafano, James Jay. *After D-Day: Operation Cobra and the Normandy Breakout*. Boulder, CO: Lynne Rienner Publishers, 2000.
- Cannon, M. Hamlin. *Leyte: The Return To The Philippines*. United States Army in World War II, CMH 5-9-1. Washington, DC: US Army Center of Military History, 1993.
- Clay, Steven E. *US Army Order of Battle 1919–1941*. Vol. 1. Fort Leavenworth, KS: Combat Studies Institute Press, 2010.

- Colarusso, Michael J., and David S. Lyle. *Senior Officer Talent Management:* Fostering Institutional Adaptability. Carlisle, PA: U.S. Army War College Press, February 2014.
- Colby, Elbridge. *The First Army in Europe*. 91st Congress, 1st Session, Senate 91-25. Washington, DC: U.S. Government Printing Office, 1969.
- Collins, Lawton J. *Lightning Joe : An Autobiography*. Novato, CA: Presidio Press, 1994.
- Commander and Staff Guide. Army Technical and Tactical Publication 5-0.1. Washington, DC: Department of the Army, 2011.
- Cray, Ed. General of the Army: George C. Marshall, Soldier and Statesman.

 New York: Cooper Square Press, Distributed by National Book Network, 2000.
- D'Este, Carlo. Decision in Normandy. New York: Konecky & Konecky, 1994.
- ——. Patton: A Genius for War. New York: HarperPerennial, 1995.
- Doubler, Michael D. Closing with the Enemy: How GIs Fought the War in Europe, 1944-1945. Lawrence, KS: University Press of Kansas, 1994.
- Dyer, George. *VII Corps Spearhead Patton's 3rd Army*. VII Corps Historical Association, 1947.
- Faulkner, Richard Shawn. *The School of Hard Knocks: Combat Leadership in the American Expeditionary Forces.* 1st ed. C. A. Brannen Series, no. 12. College Station: Texas A&M University Press, 2012.
- Frank, Benis, and Henry I. Shaw. "Amphibious Doctrine In World War II." In *Victory and Occupation: History of the U.S. Marine Corps Operations in World War II*, 5:653–658. Quantico, VA: Historical Branch, US Marine Corps, 1968.
- Garland, Albert N., Howard McGaw Smyth, and Martin Blumenson. *Sicily and the Surrender of Italy*. United States Army in World War II, CMH 6-2-1. Washington, DC: US Army Center of Military History, 1993.
- Gorin, Lewis J. *The Cannon's Mouth: The Role of U.S. Artillery During World War II.* New York, N.Y.: Carlton Press, 1973.

- Greenfield, Kent Roberts, Robert R Palmer, and Bell I. Wiley. *The Organization of Ground Combat Troops*. Washington, DC: Historical Division, Department of the Army, 1947.
- Grotelueschen, Mark E. *The AEF Way of War: The American Army and Combat in World War I.* Cambridge: Cambridge University Press, 2010.
- Gudmundsson, Bruce I. On Artillery. Westport, CT: Praeger, 1993.
- Hewitt, Robert L. Work Horse of the Western Front: The Story of the 30th Infantry Division. Washington, DC: Infantry Journal Press, 1946.
- Hogan, David W. Jr. *A Command Post at War: First Army Headquarters in Europe, 1943-1945.* United States Army in World War II CMH Publication 70-60. Washington, DC: US Army Center of Military History, 2000.
- Jeffers, H. Paul. Command of Honor: General Lucian Truscott's Path to Victory in World War II. New York: NAL Caliber, 2008.
- ———. Taking Command: General J. Lawton Collins from Guadalcanal to Utah Beach and Victory in Europe. New York: New American Library, 2009.
- Keegan, John. The Second World War. New York: Penguin Books, 1990.
- Kirkpatrick, Charles E. "The Very Model of a Modern Major General'
 Background of World War II American Generals in V Corps." In *The*U.S. Army and World War II: Selected Papers, United States Army in
 World War II. CMH Publication 68-4. Washington, DC: US Army Center
 of Military History, 1998.
- Koistinen, Paul A. C. Arsenal of World War II: The Political Economy of American Warfare, 1940-1945. Modern War Studies. Lawrence, KS: University Press of Kansas, 2004.
- ———. Planning War, Pursuing Peace: The Political Economy of American Warfare, 1920-1939. Modern War Studies. Lawrence, KS: University Press of Kansas, 1998.
- Kretchik, Walter E. *U.S. Army Doctrine: From the American Revolution to the War on Terror.* Modern War Studies. Lawrence, KS: University Press of Kansas, 2011.
- Lengel, Edward G. *To Conquer Hell: The Meuse-Argonne, 1918.* 1st ed. New York: H. Holt, 2008.

- Mansoor, Peter R. *The GI Offensive in Europe: The Triumph of American Infantry Divisions, 1941-1945.* Lawrence, KS: University Press of Kansas, 1999.
- Matheny, Michael R. Carrying the War to the Enemy: American Operational Art to 1945. Norman: University of Oklahoma Press, 2011.
- Matloff, Maurice. "The 90 Division Gamble." In *Command Decisions*, edited by Kent Roberts Greenfield. United States Army in World War II CMH Publication 70-7-1. Washington, DC: US Army Center of Military History, 1987.
- Miller, Edward G. *Nothing Less Than Full Victory: Americans at War in Europe,* 1944-1945. Annapolis, MD: Naval Institute Press, 2007.
- Millett, Allan Reed, and Peter Maslowski. For the Common Defense: A Military History of the United States of America. New York; London: Free Press; Collier Macmillan, 1984.
- Montgomery, Bernard. 21st Army Group High Command In War. Germany: 21st Army Group, 1945.
- Murray, Williamson. *Military Innovation in the Interwar Period*. Cambridge; New York: Cambridge University Press, 1998.
- Muth, Jörg. Command Culture: Officer Education in the U.S. Army and the German Armed Forces, 1901-1940, and the Consequences for World War II. 1st ed. Denton, TX: University of North Texas Press, 2011.
- Nelsen, John T. III. General George C. Marshall: Strategic Leadership and the Challenges of Reconstituting the Army 1939-41. Professional Readings in Military Strategy 7. Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 1993.
- Odom, William O. *After the Trenches: The Transformation of U.S. Army Doctrine, 1918-1939.* 1st ed. Texas A & M University Military History Series 64. College Station: Texas A & M University Press, 1999.
- Osinga, Frans P. B. *Science, Strategy and War: The Strategic Theory of John Boyd.* London; New York: Routledge, 2007.
- Palmer, Robert R, Bell I. Wiley, and William R. Keast. *The Procurement and Training of Ground Combat Troops*. The United States in World War II CHM 2-2. Washington, DC: US Army Center of Military History, 1948.

- Patton, George S, and Paul D Harkins. *War as I Knew It*. Boston: Houghton Mifflin Co., 1995.
- Pogue, Forrest C. George C. Marshall: *Education of a General 1880-1939*. New York: Viking, 1963.
- ——. George C. Marshall: Ordeal and Hope 1939-1942. New York: Viking, 1965.
- ——. *George C. Marshall: Organizer of Victory 1943-1945.* New York: Viking, 1973.
- Price, Frank James. *Troy H. Middleton: A Biography*. Baton Rouge: Louisiana State University Press, 1974.
- Reardon, Mark J. *Victory at Mortain: Stopping Hitler's Panzer Counteroffensive*. Lawrence, KS: University Press of Kansas, 2002.
- Schifferle, Peter J. America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II. Lawrence, KS: University Press of Kansas, 2010.
- Smith, R. Elberton. *The Army and Economic Mobilization*. United States Army in World War II Publication 1-7. Washington, DC: US Army Center of Military History, 1959.
- Stiehm, Judith. *The U.S. Army War College: Military Education in a Democracy*. Philadelphia: Temple University Press, 2002.
- Sylvan, William C., Francis G. Smith, Jr., and John T Greenwood, (ed.).

 Normandy to Victory: The War Diary of General Courtney H. Hodges
 and the First U.S. Army. Lexington: University Press of Kentucky, 2008.
- Taaffe, Stephen R. Marshall and His Generals: U.S. Army Commanders in World War II. Modern War Studies. Lawrence, KS: University Press of Kansas, 2011.
- Van Creveld, Martin. *Command in War*. Cambridge, MA: Harvard University Press, 1985.
- Watson, Mark S. *The War Department: Chief of Staff Prewar Plans and Preparations*. The United States Is World War II CMH Publication 1-1. Washington, DC: US Army Center of Military History, 1950.

- Weigley, Russell F. Eisenhower's Lieutenants: The Campaign of France and Germany, 1944-1945. Bloomington: Indiana University Press, 1990.
- ———. The American Way of War: a History of United States Military Strategy and Policy. Bloomington: Indiana University Press, 1973.



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