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Program Description

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

Abstract

From 1946 to 1960, the college debated how to develop doctrine for the atomic age. The consensus remained as elusive in 1960 as it did in 1946. Why did the Command and General Staff College leaders struggle to develop doctrine and instruction from 1946 to 1960? Doctrine development and instruction remained nebulous throughout the 1950s because the uncertainty of limited war's feasibility made CGSC commandants hesitant to direct doctrinal changes that disrupted the curriculum. CGSC commandants developed doctrine and instruction cautiously. Only directives from higher headquarters drove significant change. After writing a new atomic-focused curriculum in 1956, CGSC leaders continued to question the feasibility of limited war. The college's challenge was a microcosm of the debate among senior leaders of the US Army. Examining the complex and nebulous nature of doctrine development in the 1950s demonstrates the important connection between tactical doctrine and strategic context, and how professional military education supports that connection.

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Contents

Acronyms

AFF	Army Field Forces
ATFA	Atomic Test Field Army
CARL	Combined Arms Research Library
CGSC	Command and General Staff College
CONARC	Continental Army Command
PENTANA	Pentagonal Atomic–Non-atomic Army
ROAD	Reorganization Objective Army Divisions
ROCAD	Reorganization of the Current Armor Division
ROCID	Reorganization of the Current Infantry Division
ROTAD	Reorganization of the Airborne Division
SHAPE	Supreme Headquarters, Allied Powers, Europe
USAREUR	United States Army, Europe

Introduction

> New concepts of tactical operations and new developments of weapons and material, which differ materially from former concepts of military operations and current types of weapons and material, normally are accompanied by prophecies and conjectures from both professional military personnel and laymen alike, which are completely out of proportion to the actual capabilities of the new concept or development. This has been true down through the period of military history.
>
> —Colonel Herbert A. Jordan,
> "Logistical Aspects of Large-Scale Airborne Operations"

In 1957, twelve years after the first atomic bomb exploded, the Commandant of the US Army Command and General Staff College (CGSC), Lieutenant General Lionel C. McGarr, announced a new curriculum that provided student officers doctrine and instruction "fully in line with the needs of the modern army in this era of rapid evolution."[1] Over the next two years, McGarr and other faculty published "Keeping Pace with the Future," a series of articles that highlighted the curriculum changes and college programs designed to train officers for the atomic age. It seemed that after numerous studies throughout the late 1940s and the 1950s the college, and in turn the US Army, had adapted to the atomic age and possessed a clear purpose and doctrine. In 1962 *Military Review* published "Two Views on Tactical Doctrine for the Nuclear Age," a pair of articles to "stimulate military thought and encourage further expression of ideas which will either prove the validity of US Army doctrine or present a sound workable alternative."[2] The question of nuclear parity between the Soviet Union and the United States prompted the reevaluation, but the series revealed a larger problem for CGSC and the US Army. Despite disagreement about the significance of nuclear parity, both authors expressed concern about the feasibility of US Army doctrine. One of the authors, Lieutenant Colonel Lawrence M. Jones, Jr., posed a troubling question in the title of his article: "Do We Have a Workable Doctrine For Nuclear Warfare?"[3] Despite the numerous external and internal studies about doctrine and instruction at CGSC since 1946, useful doctrine and instruction seemed as elusive in 1962 as it did in 1946. Why did the Command and General Staff College leaders struggle to develop doctrine and instruction from 1946 to 1960?

Service culture and institutional preferences exerted enormous influence on US Army doctrine development. Historian Brian Linn noted that "Preparation [for war] occurs in peacetime, often over several decades, and is greatly influenced by a service's perceptions of its own martial traditions, its interpretations of lessons learned from recent conflicts, its understanding of current threats and opportunities, and its vision of future wars."[4] The US Army's culture that Linn described was informed by institutional preferences. Carl Builder argued that "Despite the logical wrappings of defense planning, there is considerable evidence that the qualities of the US military forces are determined more by cultural and institutional preferences for certain kind of military forces rather than by the 'threat.'"[5] Institutional concerns about legitimacy and relevance informed and supported culture preferences. The US Army as an institution based its legitimacy and relevance on the application of combined arms operations to achieve military victory on the battlefield.[6] Builder argued that as the US Army emerged from World War II it had to "adjust its self-image to the realities of the nuclear era," and to a large degree that self-image was built on memories of military victory over the German and Japanese armies through combined arms warfare.[7] The US Army's desire to preserve its self-image clashed with its traditional role as the nation's servant.[8] Though the Korean War validated the need for ground forces, historian Andrew Bacevich noted that it created "a strong prejudice against engaging in any more dirty land wars" among the American public and made it difficult for the US Army to advocate its combined arms approach to warfare.[9]

Another aspect of US Army culture was the concept of generational change and how experience informed how officers learned from and prepared for war that historian J.P. Clark used in his study of how the US Army prepared for war from 1815 to 1917.[10] The 1950s US Army revealed similar generational differences based on service experience. Three of the CGSC commandants in the post-World War II period, Generals Leonard T. Gerow, Manton S. Eddy, and Horace L. McBride, served in both World Wars. Their service at the tactical level in World War I and the operational level as division and corps commanders in World War II gave them unique perspectives on the US Army. Likewise, Generals Garrison H. Davidson and Lionel C. McGarr, commandants from 1954 to 1960, served at the regiment, division, and army level during World War II, and both served at the division level during the Korean War. As each officer took command of the college, they led staff and faculty that served below the division level during World War II and the Korean War. The staff and faculty contained US Army officers with experience at the tactical and operational level of

war in multiple conflicts. A common perspective among officers, regardless of generation, was that Korea validated the concept of combined arms and the increased importance of firepower.[11] This manuscript does not attempt to capture the specific influence of generational change, however, the influence of personal experience on doctrine cannot be discounted.

The third aspect of US Army culture that influenced doctrine was how officers viewed their role in the institution. Linn used the framework of Guardians, Heroes, and Managers in his analysis of the US Army's approach to war. He argued that Guardians were officers who viewed war as a science, mastered by professionals to be applied as art on the battlefield.[12] They valued technology and the precision offered by evolving technology. Heroes valued the human dimension of warfare and emphasize war's uncertainty. Linn's description implies that Heroes might be susceptible to ignore concerns about escalation because they viewed war "as armed violence directed toward the achievement of an end," and the individual decided if the end was military victory or achievement of the political objective. Linn's final category was Managers, those officers who viewed war as an "organizational problem" based on experiences with mobilizing society and industry during the world wars.[13] Variations of all three categories appeared in the pages of *Military Review* and college administrative documents during the 1940s and 1950s.

The connections between doctrine, service culture, and officer identity reveal the complex relationships within the US Army that made adapting to the Cold War so difficult for US Army officers. If doctrine was meant to provide, or capture, consensus about warfare the only unifying concept within the US Army was the importance of combined arms operations. The debate about how to apply principles, tactics, techniques, and rapidly evolving material to combined arms operations in the atomic age revealed a firm belief in the principles of war outlined in FM 100-5 *Operations,* with most analysis of those principles focused on how they applied to the atomic age. An illustrative example of officers' adherence to the principles of war is "The Art of War in the Thermonuclear Era," a1957 CGSC study by the Special Studies Group. The group analyzed three scenarios of thermonuclear war to determine the validity of the Art of War, specifically "the currently accepted principles of war and their application."[14] The study considered the principles of war that the 1949 and 1954 versions of FM 100-5 codified: objective, offensive, simplicity, unity of command, mass, economy of force, maneuver, surprise, and security.[15] The sub-studies advocated establishing a new principle of war, morale, due to "the severe and demanding conditions of [thermonuclear] warfare," and each sub-study

validated or rejected certain principles based on the theoretical vision of the thermonuclear battlefield.[16] The centrality to the principles of war in the debate about atomic war in the 1950s supports Linn's argument that "Peacetime military thought focuses on what the army thinks about past wars, how it interprets current threats of war, and how it anticipates future wars."[17] The US Army interpreted the changes in warfare through the lens of its combined arms doctrine.[18]

Much of the historiography of the US Army in the 1950s emphasized how senior leaders of the US Army responded to President Dwight D. Eisenhower's New Look national security policy. Most historians portray the response as a struggle for the army's survival in the atomic age. John P. Rose and John J. Midgley analyzed the development of nuclear doctrine and policy and argued that the army sought to make ground combat possible in the atomic age. Though Midgley argued the US Army ignored the consequences of escalation, Rose defended the US Army's nuclear doctrine development on the grounds that the testing of tactical nuclear weapons did not differ from other large weapons.[19] Ingo Trauschweizer took the argument a step further and claimed that, "the capacity to wage limited war became the main focus of the army's political struggle for survival in the Eisenhower years."[20] Bacevich's *The Pentomic Era* provided the most comprehensive view of the US Army's process to adapt to the political and tactical challenges posed by the nuclear battlefield.[21] The US Army's search for institutional relevance in the Department of Defense created a preoccupation with weapon systems and atomic organizations at the expense of a practical doctrine that regulated the battlefield while accounting for the fact that the Soviet Union had a vote in limiting atomic warfare to the battlefield.

Historians disagreed to what extent the army's response to the New Look created a viable force structure and doctrine to win on the battlefield. Bacevich argued that the failure of the pentomic division demonstrated the US Army's misguided belief in technological solutions to operational problems. He claimed that the US Army framed the 1950s defense problem correctly but developed an organization that was tactically, operationally, and strategically ineffective. In pursuing parochial interests, the US Army attempted to develop a dual capable force that undermined the service's initial conceptual attacks on Eisenhower's New Look.[22] Trauschweizer offered an opposing view in *The Cold War US Army.* While the pentomic division did not solve the tactical problem of a nuclear battlefield, Trauschweizer argued that the US Army evolved throughout the Cold War and that it correctly focused on building a deterrent force in Europe.[23] Linn

addressed the concept of a suitable and feasible force structure through the lens of personnel and recruitment in *Elvis's Army.* He argued that the social revolution that occurred in the US Army in the 1950s limited the army's ability to implement an operational concept that required long-serving and technologically skilled soldiers.[24] The best analysis of how the US Army's division structure changed is John B. Wilson's *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades.* Wilson argued that the US Army's atomic divisions gave legitimacy to the US Army and secured funds for research and development.[25]

Few historians that analyzed the US Army's response to the New Look considered the implications for civil-military relations. While Linn and Trauschweizer analyzed the feasibility of the pentomic army, they examined consequences related to how the US Army implemented its doctrine. Midgley critiqued the US Army's operational concept, noting its lack of concern for escalation in a direct conflict between the United States and the Soviet Union.[26] Only Bacevich and historian Donald Carter addressed the consequences for American civil-military relations. Bacevich argued that General Matthew Ridgway damaged civil-military relations through his insubordinate, and public, opposition to Eisenhower's New Look.[27] Carter took a moderated view and argued that while the generals did oppose the New Look, the public disagreement focused on Eisenhower's characterization of their support for the New Look. He also argued that Eisenhower's defense reorganizations in 1953 and 1958 created a system that limited future presidents access to military advice.[28]

Despite the analysis of *how* the US Army implemented the New Look, there is little analysis of what prevented the development of an atomic doctrine in the 1950s US Army. The debate in the 1950s over doctrine and force designs to meet the requirements of a potential war exposed the connective tissue between strategy and tactics. The doctrine and force designs considered by US Army officers reflected how they perceived the utility of the ways and means to support, or achieve, national security strategy objectives. While most historians examined the organizational dysfunction created by the US Army leaders' response to the New Look, few analyzed how the debate about limited war's feasibility influenced doctrine and instruction at CGSC in the atomic age.

Some historians addressed CGSC's role indirectly such as Linn who characterized CGSC as a reluctant participant in doctrine development for the pentomic army.[29] Rose described the changes at CGSC in the atomic age and concluded there was more continuity than change as the curriculum merely incorporated atomic weapons into existing combined arms

concepts.[30] Walter Kretchik argued that "the faculty confused not only themselves but also the students," as CGSC changed its curriculum to focus on the pentomic division.[31] Trauschweizer acknowledged CGSC's contribution to the Atomic Test Field Army study and doctrine development but focused on the debate about atomic war at the Department of the Army level. Trauschweizer noted that CGSC submitted supplements to FM 100-5 *Operations* in 1956 and 1958 but the supplements did not make significant changes.[32] CGSC submitted a draft version of FM 100-5 to CONARC in 1958 but CONARC returned it for major revisions.[33] Michael D. Stewart and Bradley J. Hardy's dissertations focused on education at CGSC in the post-World War II. Stewart argued that leaders at CGSC never reached consensus about modern war in the 1950s, due to failures of organization and resources.[34] Hardy argued there was more consensus at CGSC and that "atomic weapons changed the meaning of modern warfare."[35] CGSC played an important role in how the US Army adapted to the atomic age but the US Army's institutional preference for combined arms warfare and the lack of certainty about limited war's feasibility made enduring change unrealistic.

This manuscript examines how US Army leaders adapted to the nuclear revolution by analyzing the doctrine and curriculum developed at the Command and General Staff College from 1946 to 1960. I argue that doctrine development, and by extension instruction, remained nebulous throughout the 1950s because the uncertainty of limited war's feasibility made CGSC commandants hesitant to direct doctrinal changes that disrupted the curriculum. The only urgency to develop doctrine for the atomic battlefield came from directives issued by the Department of the Army or CONARC. Despite clear directives from the Department of the Army, debates about war and its conduct in the atomic age remained unsettled among the commandants and faculty at CGSC. The US Army adopted atomic weapon systems and divisional structures in the 1950s, but CGSC commandants developed doctrine and instruction cautiously. It took directives to drive significant change. Even with directives, and McGarr's initial enthusiasm to rewrite the curriculum in 1956, by 1958, McGarr questioned the feasibility of limited war.

The curriculum at the staff college changed slowly and incrementally, though officers assigned to the college had studied the challenges of the atomic battlefield since the late 1940s. Some special study groups, such as "The Art of War in the Thermonuclear Age," developed tactical concepts to determine which, if any, principles of war still applied to the atomic battlefield.[36] Other officers searched for "the place of these new

weapons in land combat," at the direction of Lieutenant General Manton S. Eddy, who served as commandant of the Command and General Staff College from 1948 to 1950.[37] In the professional service journals like *Military Review,* officers attempted to define the nature of war, the risk of nuclear escalation, and how emerging technology would affect the battlefield. Meanwhile, the curriculum at the Command and General Staff College remained largely unchanged from 1946 to 1956, when McGarr initiated a complete rewrite of the curriculum to adapt to the pentomic division concept.[38] Despite rewriting the 1957-1958 curriculum to focus on the pentomic division, McGarr's guidance to faculty in 1958 stated that, "Local War in Europe should be kept to a minimum amount for reasons of realism–the likelihood that local war there would immediately erupt into general war."[39] Linn observed that McGarr "fundamentally undermined the primary concept behind limited atomic warfare," and that his "conversion was perhaps unique" based on his enthusiastic embrace of limited atomic warfare and the significant changes he made to the curriculum.[40] Like FM 100-5, the doctrine and curriculum at CGSC remained focused on combined arms operations with no clear concept for how to fight an atomic war. The incremental changes to the curriculum reflected the technical and technique focused changes in US Army doctrine.

The debate in the service journals and the special study groups focused on making atomic warfare feasible. That is not surprising as the atomic battlefield was a possibility and military professionals train for potential operational and tactical environments. Some officers like CGSC instructor Major Robert K. Cunningham, did note the challenge of uncontrollable nuclear escalation.[41] He was one of the increasing number of officers to define the nature of war in terms of its political purpose in the United States and the uncertainty of achieving a political objective through military force. Yet, even Cunningham dismissed the uncertainty of uncontrollable escalation and advocated for a non-nuclear deterrent force to limit war in Europe, though he did not say how that eliminated the threat of escalation. The most interesting aspect of the wide-ranging debate about tactical atomic weapons was not that it ignored nuclear escalation, but that in 1956 even Taylor doubted tactical atomic weapons would be authorized for use in the region where limited war was their reason for existence—Europe.[42]

While an atomic-capable division could theoretically be deployed to fight a limited war in peripheral regions, that argument was not the focus in the debates about US Army doctrine. General Garrison Davidson assessed the state of the college at the end of his tour as commandant in

1956 and he noted that doctrine should be developed from the bottom up to harness the "vast reservoir of brainpower and experience" to support the Chief of Staff of the Army's requirements.[43] The development of doctrine and curriculum at CGSC during the 1950s revealed skepticism about limited war. The college focused on developing tactical doctrine and that required starting with the assumption that atomic warfare was feasible. That assumption carried a larger and more problematic assumption in its shadow–the use of atomic weapons would be limited to the battlefield. Officers at the college differed on the validity of that planning assumption and the US Army's doctrine and force management efforts in the 1950s reflected the incongruency.[44] Linn argued that army leaders, specifically at the Army War College, also "openly questioned the army's headlong rush to the atomic battlefield."[45] By attempting to make war practical in the atomic age the US Army increased the skepticism about ground warfare achieving any political objective on the atomic battlefield. In 1957 Major General Thomas J. H. Trapnell gave a lecture at the Air War College and argued that "warfare required close coordination between political and military objectives."[46]

While the story of the US Army in the 1950s is well-researched, it is not a subject of popular history except for the army's experience in the Korean War.[47] Yet, as the United States Army implements Multi-Domain Operations (MDO) doctrine to operate in the competition continuum, and rhetoric grows about potential conflict between China and Russia, it is worth reexamining how the US Army responded during another period of rising tensions and technological change.[48] Change does not happen in a vacuum and there are basic assumptions that drive policy and doctrine. Those assumptions are often the product of history.[49] Marc Trachtenberg argued that, "When thinking about the role of nuclear weapons, the most important question for us is not *whether* they proved decisive in various crises, but rather *how* they influenced the course of events, in normal times as well in periods of high tension."[50] In the history of national defense policy and the US Army, nuclear weapons dramatically influenced how leaders envisioned war. Regardless of which vision was correct, each vision influenced the debate about the US Army's role in war.[51]

The CGSC staff and faculty contributed to the debate about the US Army's role in war during the atomic age. Analyzing the role of the US Army Command and General Staff College during the 1950s provides a unique insight to how the officers in the US Army understood war.[52] The curriculum, the administrative documents, and the college's monthly publication *Military Review* reveal how leaders and instructors at CGSG pos-

tulated, explored, and critiqued ideas about war. The sources also show the organizational friction within the Department of the Army's process of change and adaptation. At CGSC, field grade officers received the last tactical level professional military education that they relied on for the last ten to fifteen years of their career. College leaders correctly identified that an uncertain future, combined with the fast pace of technological and geopolitical change after World War II, made "getting it right" a challenge. The burden of preparing officers to be effective and efficient staff officers and commanders weighed heavily on the minds of the staff and faculty.

As *the* senior tactical school in the US Army, the curriculum debates and guidance at the Command and General Staff College reflect the close relationship between doctrine and instruction. Doctrine informed instruction and instruction refined doctrine. Combined, doctrine and instruction made a statement about the US Army's role in war and society. The debate over war's utility in the atomic age was also a debate about the legitimacy and relevance of the US Army. Institutional leaders developed a role for the US Army on the atomic battlefield to solve the army's relevance and prestige problem in society while contributing to national defense. In the debate about the atomic battlefield one assumption remained fixed in the minds of the US Army's senior leaders—the US Army could fight and win on the atomic battlefield. The questions became: How should the army be organized? How should the army fight?

This manuscript analyzes the directives and debates within the Command and General Staff College and *Military Review* and reveals the growing skepticism about the feasibility of limited war in doctrine and instruction. Chapter one provides an overview of US Army doctrine and concepts from 1946 to 1960 to provide context for the following chapters that analyze doctrine development at CGSC. The Department of the Army focused doctrine and organizations on building a deterrent force focused on limited war to secure funds and legitimize the US Army's role on the atomic battlefield. Doctrine development at service schools continued to focus on practical doctrine to win on the battlefield which initiated a mismatch of objectives between the Department of the Army and subordinate units.

Chapter two analyzes organizational changes at the Command and General Staff College between 1946 and 1950. As the atomic age dawned and CGSC assessed its role after World War II, the US Army and CGSC assessments of the officer education system reorganized the college. The detonation of the first Soviet atomic weapon in 1950, and the college's

increased organizational capacity for analyzing doctrine increased focus on developing atomic doctrine.

Chapter three analyzes how leaders at the college adapted the curriculum to changes in warfare while considering the applicability of lessons from World War II and the Korean War. Adapting to atomic weapons was one of numerous challenges facing CGSC leaders, yet there was a concentrated effort to look forward and prepare officers for multiple operational environments. While the Korean War affirmed the college's focus on combined arms warfare, by 1951 an internal assessment of the college's curriculum raised the question about CGSC's authority and role in doctrine development. By 1953 there was an insignificant amount of atomic education in the curriculum and the first signs of reluctance within the college to make significant changes to doctrine without accurate data on atomic effects or directives from CONARC.

Chapter four analyzes how the CGSC curriculum and doctrinal concepts developed under General Garrison H. Davidson, the commandant at the college when Eisenhower's New Look was approved. Reflecting the US Army culture in the 1950s, Davidson balanced a professional review of the curriculum while also responding to parochial interests of the US Army and the college that left debates over US Army doctrine unsettled. The Easterbrook Report showed the division within the faculty about how to teach atomic warfare and the Weld Memorandum highlighted the increased emphasis on the connection between the college's missions of instruction and doctrine development. By 1956, Davidson had set the college on a path that balanced the expanding interest in atomic warfare while producing officers that understood the connection between military objectives and the operational environment.

Chapter five analyzes three important transitions between 1956 and 1960: the adoption of the pentomic division structure, the transition of CGSC commandants from Davidson to McGarr, and McGarr's transition from advancing limited war doctrine to questioning the feasibility of the doctrine in Europe. McGarr enthusiastically carried out the CONARC directive to rewrite the 1957-1958 curriculum to support the pentomic division. His growing skepticism about limited war in the college curriculum guidance *and* his modifications to the 1958-1959 curriculum demonstrates that it was difficult to develop doctrine and instruction at CGSC because the commandants in the 1950s doubted the feasibility of limited war and the only urgency to develop doctrine for the atomic battlefield came from directives issued by the Department of the Army or CONARC

Finally, this manuscript concludes that the debate within CGSC about the feasibility of limited war demonstrates the connection between tactical doctrine and strategic objectives. Professional military education serves as a bridge between the two levels of war because it prepares officers to think about war's nature and operational art. Recommendations for further research are also included.

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15. Walter E. Kretchik, *US Army Doctrine: From the American Revolution to the War on Terror* (Lawrence, KS: University Press of Kansas, 2011), 162. Kretchik noted the increased focus on Jominian theory in the 1949 FM 100-5 *Operations* version with the inclusion of the principles of war. The 1944 version of FM 100-5 did not include any mention of the principles of war.

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17. Linn, *Echo of Battle,* 9.

18. John P. Rose, *The Evolution of US Army Nuclear Doctrine, 1945-1980* (Boulder, CO: Westview Press, 1980), 102.

19. John J. Midgley's *Deadly Illusions: Army Policy for the Nuclear Battlefield* (Boulder, CO: Westview Press, 1986), 161; Rose, *Evolution of US Army Nuclear Doctrine,* xiii-xiv.

20. Ingo Trauschweizer, *The Cold War US Army: Building Deterrence for Limited War* (Lawrence, KS: University Press of Kansas, 2008), 2.

21. Bacevich, *The Pentomic Era,* 8-9.

22. Bacevich, *The Pentomic Era,* 142-151. A dual capable force could operate on the atomic battlefield or in non-atomic environments.

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25. John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades* (Washington, DC: US Army Center of Military History, 1998), 263.

26. Midgley, *Deadly Illusions,* 31.

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31. Kretchik, *US Army Doctrine,* 176.

32. Trauschweizer, *Cold War US Army,* 271fn46.

33. Trauschweizer, *Cold War US Army,* 271fn46.

34. Michael David Stewart, "Raising a Pragmatic Army: Officer Education at the Command and General Staff College, 1946–1986," (Ph.D. diss., University of Kansas, 2010), 8.

35. Bradley J. Hardy, "The Best Available Thought: US Army Doctrine and Education in the Atomic Era, 1945-1963," (P.h.D diss., Florida State University, 2023), 9.

36 Dawall, et al., "The Art of War in the Thermonuclear Era," 1-3.

37 G. C. Reinhardt and W. R. Kintner, *Atomic Weapons in Land Combat* (Harrisburg, PA: Military Service Publishing Company, 1953).

38. Lionel C. McGarr, *Special Report of the Commandant* (Fort Leavenworth, KS: US Army Command and General Staff College, January 1959), i, https://cgsc.contentdm.oclc.org/digital/collection/p4013coll11/id/2207/rec/109.

39. Lionel C. McGarr, "Subject: /9 Planning Memorandum Number 6, /9 Curriculum Guidance and Decisions on /9 Curriculum," 15 November 1957, Commandant's Policy and Precedent File, vol. 3, 1-30 April 1957, CGSC Curriculum, CARL, 45.

40. Linn, *Elvis's Army,* 92-93.

41. Robert K. Cunningham, "The Nature of War," *Military Review* 39, no. 8 (November 1959): 48-54.

42. Linn, *Elvis's Army,* 90.

43. Garrison H. Davidson, "Letter to General Willard G. Wyman," 6 July 1956, in "After-Action Report, 3 July 1954 to 9 July 1956," (AAR), (Commandant, Command and General Staff College, Fort Leavenworth, KS, 6 July 1956), N13423.92, CGSC Curriculum, CARL.

44. Rose, *Evolution of US Army Nuclear Doctrine,* 85.

45. Linn, *Elvis's Army,* 93.

46. Linn, *Elvis's Army,* 93.

47. For an overview of how historians have evaluated the US Army's readiness for war before the Korean War see Thomas E. Hanson, *Combat Ready?: The US Army on the Eve of the Korean War (*College Station, TX: Texas A&M University Press, 2010), 7-12. Even the history of the Korean War for most popular audiences, to include officers in the United States armed forces, is limited to T. R. Fehrenbach *This Kind of War: The Classic Korean War History* (Dulles, VA: Potomac Books, 1963). For a discussion of the influence of popular history on society's view of war see Cathal J. Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost* (New York, NY: Oxford University Press, 2017).

48. Linn made a similar argument about how Revolution in Military Affair (RMA) advocates approached changes in warfare, though Linn's analysis focused on the human dimension of recruitment and the qualifications required to wage war in the Pentomic Division. See Linn, *Elvis's Army,* 336. For another call to reexamine the US Army's experience, see Bacevich, *The Pentomic Era,* 154. Bacevich, writing to military professionals in the 1980s, argued that "Chief among the lessons [to learn from the US Army's experience in the 1950s] must be the importance of possessing a clear understanding of the utility of force in the modern world." For information on Multi-Domain Operations see US Army Training and Doctrine Command (TRADOC), TRADOC Pamphlet 525-3-1, *The US Army in Multi-Domain Operations 2028* (Fort Eustis, VA: TRADOC, December 2016).

49. Marc Trachtenberg, *The Craft of International History: A Guide to Method* (Princeton, NJ: Princeton University Press, 2006), 283.

50. Trachtenberg, *The Craft of International History,* 284. Emphasis in the original.

51. T. R. Fehrenbach noted this in the conclusion of *This Kind of War:* "Competition, after all, is controlled action or controlled violence for an end, and nuclear weapons do not lend themselves to control. And in nuclear war there is apparently no prize, even for first place. Yet men must compete." See Fehrenbach, *This Kind of War,* 455. While Fehrenbach implied that ground combat was still a necessary planning consideration he also avoided the logic of escalation in the event of a war with the Soviet Union. Unfortunately, Fehrenbach did not consider that people are less controllable than the nuclear weapons they control. Identifying the logic of escalation and the nature of war does not mean there is a right answer, but analyzing the competing arguments provides policymakers and practitioners a clear understanding of the potential consequences of defense policy and doctrinal concepts.

52. Throughout this analysis, reference is made to US Army leaders and officers. Where possible, I have distinguished between leaders and officers working at three levels: Department of the Army, the USA CGSC, and specific officers on the USA CGSC faculty. US Army leaders generally applies to

generals or staff officers working at the Department of the Army level, or where an idea is reflective of senior leaders throughout the US Army. The term CGSC leaders refers to the college's staff and faculty, usually in the context of curriculum documents or commandant directed staff studies. If a commandant or other executive level officer stated a position in the historical record that does not represent the consensus of fellow leaders at CGSC, it is attributed to them clearly. The term US Army officer used to state a position means that the idea represented the average officer writing for *Military Review* or serving on the CGSC staff and faculty. Of course, any historical analysis is limited by the structures and documents left behind.

Chapter 1
US Army Doctrine, 1946-1960

Doctrine is a statement of how a military organization intends to conduct operations in war. It codifies technical and tactical ideas about an envisioned battlefield. Historian Walter Kretchik argued that doctrine is "approved" practice as opposed to informal practice.[1] He viewed doctrine as a formal way to regulate behavior and practice "to control the innate chaos of the battlefield and guide those who plan and execute military operations."[2] In that sense doctrine serves as a bridge between structure and culture within military organizations. Doctrine ideally captures consensus about how the military organization can, or should, operate on the battlefield despite the various parochial views of service branches.[3] Doctrine also bridges structure and culture between the military organization and the state policy-making apparatus. For example, US Army doctrine explains how the US Army's cultural understanding of warfare—inherently ground centric—supports or interacts with the national strategy.[4]

In this manuscript, the term doctrine refers to published manuals or curriculum that regulated or described operations, tactics, or techniques. US Army regulations in the 1950s gave CGSC the authority to "initiate action as necessary to formulate or revise doctrine or initiative to develop doctrine.[5] The distinction between doctrine and curriculum used for instruction was often blurred and CGSC Commandant General Garrison Davidson noted "current doctrine is an intrinsic part of our instructional mission. What we teach IS current doctrine."[6] Articles in *Military Review,* especially those written by CGSC instructors, communicated doctrine and concepts.[7] The US Army's Field Manual 100-5 *Operations* described, "the doctrine for leading troops in combat and the broad aspects and principles of military operations of the combined arms and services...and the relationships of the various military services in pursuit of those operations and in support of national policies and objectives."[8] FM 100-5 focused on combined arms operations and tactical considerations. Tactical doctrine focused on the employment of formations, such as the infantry, airborne, and armored divisions. Finally, doctrine also included techniques or technical data for specific weapon systems or planning considerations. The primary example of technical doctrine that affected the US Army in the 1950s was FM 100-31 *Tactical Use of Nuclear Weapons* that was published in November 1951.[9] The manual represented the first attempt to regulate the use of atomics on the battlefield. The introduction to the manual noted that the lack of data and field tests made it difficult to "determine exact tactical

effects," and consequently the manual did not propose any changes to offensive or defensive doctrine.[10]

The US Army's doctrine in the post-World War II era was based on combined arms warfare and US Army leaders struggled to incorporate atomic weapons into doctrine. Walter Kretchik argued that the atomic age disrupted the US Army's approach to combined arms warfare because the overwhelming firepower of atomic weapons questioned the utility of ground forces.[11] As US Army leaders like Army Chiefs of Staff J. Lawton Collins and Matthew Ridgway attempted to revitalize the US Army's role in warfare, Kretchik claimed that "army leadership failed to foresee that diplomatic and political pressures might prevent the use of all weapons available within the arsenal."[12] Historian Jon House concluded that the prospects of nuclear *and* irregular warfare not only tested the vitality of combined arms warfare but also presented another challenge: how to develop doctrine to "fight any war any place at any time" with declining force and budget levels.[13] The wide range of political contingencies post-World War II disrupted the US Army's focus on combined arms warfare. Yet the disruption did not shake the US Army's preference for combined arms warfare. Historian Robert Doughty argued that postwar studies of US Army doctrine "strongly reaffirmed the need for combined arms operations."[14] Doughty noted that doctrinal and organizational development in the 1940s and 1950s failed because "technology lagged behind the doctrine, and strategic concepts raced ahead of tactical realities."[15] US Army doctrine remained stable throughout the 1950s but the service developed tactical atomic weapons systems and pursued organizational changes. The lack of doctrine to regulate the increased firepower of tactical atomic weapons and new divisional organizations made any enduring adaptation to the atomic battlefield unfeasible.

The US Army's experience in the Korean War left two lasting impressions on the service that influenced the 1954 version of FM 100-5 *Operations.* First, the Korean experience surprised officers because the political restraints on military objectives and use of nuclear weapons stood in stark contrast to the US Army's World War II experience. Historian Brian Linn argued that the political restraints on atomic weapons during the Korean War "vindicated the army's critique of General War as a national security policy," while also emphasizing the perceived need for tactical atomic weapons because officers assumed those could be used within the political restraints demonstrated in the Korean War.[16] The second impression from the US Army's experience in Korea was the need for firepower. The terrain and strength of enemy formations challenged the "war of movement" con-

cept described in the 1949 version of FM 100-5 *Operations* and the importance of firepower increased to offset the enemy's numerical advantage.[17] The political restraints on warfare and the need for greater firepower created an approach to the warfare that challenged officers as they developed doctrine for the atomic age: how to design an organization and doctrine to fight an atomic and non-atomic war.

As the awareness of political restraints increased, the US Army's search for greater firepower increased without significant changes to the tactical organizations used in World War II. The 1949 version of FM 100-5 *Operations* stated that, "the ultimate objective of all military operations is the destruction of the enemy's armed forces and his will to fight."[18] By 1954, the updated version of FM 100-5 tempered the doctrine governing US Army operations by stating, "the basic doctrine of US Army operations is the defeat of an enemy by application of military power directly or indirectly against the armed forces," but noted that "the nature of the political situation at any time may require employment of armed forces in wars of limited objectives."[19] The manual did not make any statements about limiting the means used to achieve limited objectives which left the question of escalation uncertain.

While FM 100-5 was updated at CGSC, the US Army was busy testing tactical atomic weapons for use at the army level.[20] The US Army fielded three tactical atomic weapon systems by 1954: two surface-to-surface missiles, the Corporal (1951) and Honest John (1954), and the M-65 (1953), a 280mm cannon originally developed in 1944 to supplement field artillery during World War II, which fired the first atomic artillery shell in May 1953. The M-65 had such slow targeting and reload times (seven hours combined for the M-65) that the US Army assigned it and the missile systems at the theater army level.[21] The US Army pursued tactical atomic weapons in the early 1950s but by 1954 it was not organized for atomic warfare and the few atomic weapons in the US Army's inventory were "absurdly obsolete as soon as [they] arrived in the field," according to historian Andrew Bacevich.[22] Five battalions of the M-65 arrived in Europe in June 1954 but tests and training exercises revealed difficulties in targeting, transporting, and controlling rates of fire to support operations.[23] John J. Midgley, Jr., agreed and argued that, "No innovative force designs for the nuclear battlefield appeared before 1953…and there were no conclusive indications that the prevailing force designs were flawed."[24] Between 1949 and 1954 the US Army focused on developing and incorporating atomic firepower, not redesigning organizations or operating concepts.

From 1954 to 1960 the US Army continued its pursuit of atomic weapons but increased focus on adapting tactical organizations to the atomic battlefield. The US Army conducted three studies from 1954 to 1956 that focused on organizational changes for the atomic battlefield: the Atomic Test Field Army (ATFA), the Pentagonal Atomic–Non-atomic Army (PENTANA), and the Reorganization of Current Divisions (ROCID, ROTAD, and ROCAD–infantry, airborne, and armor respectively).[25]

The Army Field Force (AFF) initiated the ATFA study in 1954 to produce a smaller division organization capable of surviving on the atomic battlefield.[26] The ATFA did not change maneuver concepts and the most significant changes was additional logistic and maintenance units. Midgley argued that it "did not provide a solution to the problems of nuclear warfare" nor did it present a workable doctrine as it assumed that divisions would fight the same on the atomic or non-atomic battlefield.[27] Historian John Wilson noted that the AFTA organization performed well, but Chief of Staff, Army General Maxwell Taylor closed the project in 1956. After two years of tests and revisions the division structure recommend by the ATFA study was larger than post-World War II divisions—the opposite of what Generals Matthew Ridgway and Taylor desired.[28] Yet, the additional support units made the division capable in the field unlike the PENTANA study that ignored the importance of logistics.

The Army War College conducted the PENTANA study to develop a dual capable division, one that could operate on the atomic and non-atomic battlefield.[29] The PENTANA study relied on technology not yet fielded and advanced a weapons-based approach to organization rather than an operating concept-based doctrine.[30] The study recommended a "completely air-transportable 8,600 man division."[31] General Garrison H. Davidson, commandant of CGSC during the PENTANA study argued that, "No realistic concept of operations has been advanced for Pentana that I know of."[32] Five of seventeen US Army schools did not concur with the PENTANA study, including CGSC.[33] One of the chief concerns about the PENTANA division was the lack of support units that the study cut to produce a smaller and air transportable division.

Despite ATFA and PENTANA exposing the challenge of fighting on the atomic battlefield, Taylor adapted the PENTANA study and directed that the ROTAD study explore a temporary solution.[34] The 101st Airborne Division began testing the ROTAD organization in 1956, which included the five-mobile group division structure from PENTANA. Taylor directed the reorganization of divisions to the ROTAD structure, and the first divisions began the transition in February 1957.[35] Despite less than a year

of testing ROTAD, Taylor made the decision to change all divisions to the pentomic division structure. The lack of adequate support units and conventional artillery identified in the PENTANA and ROTAD testing plagued the pentomic divisions as 7th Army in Europe led the reorganization.[36]

The three organizational studies produced inconclusive results based on unrealistic conditions such as limiting the number of nuclear strikes on the division and allowing command and control units to continue operating after being destroyed.[37] Despite the unresolved challenges of fighting on the atomic battlefield, Taylor mandated that divisions structure to the pentomic division model without wargames or significant analysis.[38] Brian Linn argued that Taylor adopted the pentomic structure because it allowed the US Army to maintain, even increase, the number of divisions despite the reductions-in-force driven by Eisenhower's New Look.[39] The pentomic division also gave the US Army a greater claim on atomic technology which Taylor hoped would repair the relevance and prestige of the service in American society.[40] Linn noted that Taylor's adoption of the pentomic division presented a contradictory strategic view. While Taylor considered general war a strategic liability Linn argued that Taylor considered atomic weapons "so destructive he doubted they would ever be authorized to defend Western Europe."[41] The inconclusive studies followed by reorganization based on Taylor's contradictory strategic view complicated the development of a doctrinal concept to regulate the use of force on the atomic battlefield. Linn claimed that "Taylor's abrupt decision to pentomicize required the army to gather and reconcile diverse and amorphous concepts of tactical atomic warfare."[42] The burden of developing doctrine fell to CGSC. The commandants and faculty of the 1950s struggled to reconcile the feasibility of developing doctrine for a dual-capable army—one that could fight an atomic and non-atomic war. Several factors influenced how leaders at CGSC approached doctrine development.

As the US Army developed, debated, and tested doctrine and force designs in the 1950s it became increasingly clear that officers fixated on the character of warfare. Rather than focus the debate on how the US Army contributed to achieving military objectives that supported national policy, the debate focused on how the US Army could achieve military victory on the atomic battlefield, implicitly assuming this was a necessity. This emphasis on the characteristics of warfare led to what Linn argued was an "assertion [by US Army leaders] that atomic weapons could be restricted to the battlefield, allowing for limited wars that would never escalate to mutual nuclear destruction."[43] As the 1950s ended leaders across the US

Army doubted the moral or political feasibility of limited war against an atomic-armed enemy.[44]

The US Army's focus on war's character led to intense study and debate over how to win on the atomic battlefield yet gave little thought to how battlefield results would affect strategic escalation or achieve policy objectives. The competing visions of war held by Eisenhower and senior army leaders weakened the link between national security strategy and doctrine that continues today through the failure to intellectually grapple with the concept of nuclear escalation between nuclear-armed great powers.[45] Taylor argued for a new strategy, Flexible Response. He believed the US Army needed a dual capable force, one capable of atomic and non-atomic warfare, so the United States could respond proportionately to conflicts rather than rely on massive retaliation.[46] That Taylor's belief in Flexible Response grew throughout the 1950s is a sobering reminder that while military advice is given by senior military leaders to support national policy objectives, military advice also reflects service priorities.[47] Taylor's disagreement with Eisenhower's policy stemmed from Taylor's view that the United States was not developing the required capability to deal with the communist threat on the periphery. Yet, Eisenhower did not want to develop enough American ground forces to fight communism on the periphery because it would burden the United States economy. Rather, Eisenhower focused on mutual security, collective defense, and covert action on the periphery to reduce defense costs and avoid direct confrontation with the Soviet Union.[48]

Though army leaders developed a form of warfare that diverged from Eisenhower's national security policy, they correctly framed the problem facing the army in the 1950s. Historian Andrew Bacevich noted that, "The real question was not how best to organize the military. Rather, as the [US] Army alone recognized, it was to identify the range of contingencies for which military forces should prepare in light of expected requirements of national security."[49] The changing context of global relationships after the end of the Second World War did call for a new look at how the army would operate to support national policy. The army did not grasp Eisenhower's view of war's utility in relation to the Soviet Union.[50] Rather than prioritize forces to support mutual security or civil defense, army leaders focused on the recent and familiar–combined arms operations as experienced in the Second World War and the Korean War.[51] The focus on developing weapons to defeat the Soviet Union, the creation of the pentomic division, and testing the effects of nuclear blasts on American soldiers all focused on making war against the Soviet Union feasible. Yet the

dual-capable force faced resistance from the commandants at CGSC and other senior leaders that reached a crescendo in 1958 when the commander of US Army in Europe, General Henry I. Hodes wrote Taylor that the cumbersome atomic weapon systems like the Honest John and Corporal missiles, along with insufficient logistics and communication structures made "the accomplishment of his wartime mission," uncertain.[52] Historian Donald A. Carter concluded that by the end of the 1950s US Army leaders believed that atomic weapons "were not a viable means for fighting [an atomic war]."[53] The US Army spent the 1950s developing tactical nuclear weapons and organizations for limited war only to conclude that the concept was not feasible. By 1960, US Army leaders shifted focus to Flexible Response and transitioned to a new division structure, the Reorganization Objective Army Division (ROAD).[54]

Having framed the problem correctly, the US Army then answered its own problem statement poorly. In a November 1954, *Military Review* article, Colonel Frank J. Sackton argued that, "Success will come to the side that can most intellectually grasp the significance of the changing nature of war, and plan searchingly for attainment of the maximum benefits in the diplomatic, strategic, and tactical arts."[55] While army leaders grasped the significance of atomic weapons on the battlefield, they prioritized service legitimacy and relevance over war's utility in the atomic age. The increased firepower of atomic weapons changed war's character, but war's nature had not changed. War remained uncertain and the destructive power of atomic weapons made Carl von Clausewitz's idea of the theoretical extreme of the use of force closer to reality than theory.[56]

The events of the immediate post-war era informed the logic of the US Army's organizational approach to war in the atomic age.[57] First, the strength of the Red Army posed a real danger to the US interests and its allies. The advances in technology throughout the Second World War provided new weapons but also presented new challenges that tactical and operational leaders needed to understand. Another factor affecting the US Army was the organizational focus from warfighting to demobilization to occupation and finally, to readiness. The shifting balance of priorities, personnel, and equipment throughout those four stages presented an organizational challenge that only grew more challenging as the United States adapted to the Second World War's geopolitical changes.[58] Amid those changing priorities the Korean War altered the US Army's focus.

The Korean War reaffirmed the need for tactical formations ready to wage war along the same doctrine of the Second World War. The outbreak of war exposed the need for general war capabilities while also raising the

fear of communist expansion through military force. While Eisenhower viewed limited wars as costly, and potentially devastating if they escalated to nuclear war, senior leaders of the army saw the Korean War as a validation of their belief that ground forces remained relevant in the atomic age.[59] Yet, the Korean War also reaffirmed that war against numerically superior forces required firepower, and atomic weapons promised to supply that firepower. Limited war with limited means became the US Army's objective because it presented the only practical framework for fighting on the atomic battlefield and developing forces to meet communist aggression on the periphery. Developing tactical nuclear weapons provided the firepower required to defeat the Soviets while also theoretically limiting nuclear escalation. The US Army's focus on developing the capacity for limited nuclear war contradicted Eisenhower's view that war in Europe could not be limited.[60] Atomic organizations and weapon systems made the ground deterrent in Europe more doubtful because as Linn noted, "it was to the Soviets' advantage to knock [US tactical nuclear weapons] out with a preventative strike, as was demonstrated in NATO's own exercises."[61] Rather than act as a ground-force deterrent, the US Army's limited war concept relied on atomic weapons to counter Soviet numerical superiority, without acknowledging that their use made atomic exchange more likely.

The US Army realized it needed to develop more organizational capacity to meet the potential threats posed by adversaries fighting general war.[62] The army misjudged the Korean War as a model for limited war between the Soviet Union. Officers noted that nuclear weapons had not been used and the Korean War remained a limited war.[63] Linn argued that US Army officers believed that "Korea proved the hollowness of a strategic policy based on nuclear annihilation," and quoted Lieutenant General Lemnitzer's 1953 speech at the Army War College that "atomic weapons on the battlefield will give us the ever-increasing capability of meeting and defeating…Soviet forces in Western Europe."[64] Leaders like Lemnitzer and Taylor led the army to conceptualize war between the United States and the Soviet Union as feasible and Kretchik argued that Taylor "advanced the argument that small nuclear devices would make it possible to avoid a larger nuclear exchange."[65] It is important to note that the atomic bomb was not the only new weapon challenging the character of warfare. In a *Military Review* article in April 1950, Lieutenant Colonel Karl Eklund noted that larger bombs, missiles, and other weapon developments stemming from the Second World War had created challenges for the future of warfare.[66] Another challenge the US Army faced was developing doctrine

that supported its allies. Eisenhower wanted to rely on European allies to supply ground forces as a deterrent in Europe while the United States provided the nuclear deterrent. European allies wanted assurances that the United States would defend Europe, the best assurance was the presence of United States' combat troops.[67] European nations were not the only allies seeking assurances of the United States' commitment. While the Soviet threat to Europe was visible and easily defined, the threat of communist expansion on the periphery posed a threat through proxy forces, political warfare, and subversion.

Notes

1. Kretchik, *US Army Doctrine,* 5.

2. Kretchik, *US Army Doctrine,* 5.

3. This can be viewed from within a specific department, like the US Army and its branches of infantry, armor, artillery, etc. or from a Joint Force perspective in how the Department of the Air Force and the Department of the Army view their contribution to war.

4. Another way of viewing doctrine and its role in bridging military culture and policy-making structure is through the concept of national ways of war. This manuscript does not address the historiography of the American Way of War but an area for future research is how the American Way of War influenced doctrine development in the US Army. For an analysis of the US Army's historical approach to warfare see Linn, *Echo of Battle.*

5. Davidson, AAR, II-2. See also, Orville Z. Tyler, Jr., *The History of Fort Leavenworth, 1937-1951* (Fort Leavenworth, KS: The Command and General Staff College, 1951), 38.

6. Davidson, AAR, II-1.

7. Davidson, AAR, V-3.

8. Department of the Army (DOA), Field Manual 100-5, *Field Service Regulations: Operations* (Washington, DC: US Government Printing Office, 1954), v.

9. Rose, *Evolution of US Army Nuclear Doctrine,* 85.

10. Department of the Army (DOA), Field Manual (FM) 100-31, *Tactical Use of Atomic Weapons* (Washington, DC: Department of the Army, 1951), iii-iv; quoted in John P. Rose, *The Evolution of US Army Nuclear Doctrine, 1945-1980* (Boulder, CO: Westview Press, 1980), 85.

11. Kretchik, *US Army Doctrine,* 158-159.

12. Kretchik, *US Army Doctrine,* 164.

13. Jonathan M. House, *Towards Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine, and Organization* (Fort Leavenworth, KS: US Army Command and General Staff College, Combat Studies Institute, 1984)), 187.

14. Robert Doughty, *The Evolution of US Army Tactical Doctrine, 1946-1976* (Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1979), 5.

15. Doughty, *Evolution of Tactical Doctrine, 1946-1976,* 19.

16. Linn, *Elvis's Army,* 77.

17. Kretchik, *US Army Doctrine,* 164-171; Linn, *Elvis's Army,* 64.

18. Department of the Army (DOA), Field Manual (FM) 100-5, *Field Service Regulations: Operations* (Washington, DC: US Government Printing Office, 1949), 2.

19. DOA, FM 100-5 (1954), 5-6.

20. Midgley, *Deadly Illusions,* 19-21; Army level refers to an organizational level, not the army as an institution. An army would typically have several corps assigned to it, with each corps directing the operations of two or more divisions.

21. Midgley, *Deadly Illusions,* 20. For description of the M-65's slow fire and response time see Linn, *Elvis's Army,* 104-105.

22. Bacevich, *The Pentomic Era,* 82. For a description of the US Army's tactical atomic weapons development see Bacevich, *The Pentomic Era,* Chapter 4 "Re-Equipping."

23. Donald A. Carter, *Forging the Shield: The US Army in Europe, 1951-1962* (Washington, DC: US Army Center of Military History, 2015), 104-106.

24. Midgely, *Deadly Illusions,* 21.

25. Midgely, *Deadly Illusions,* 31.

26. Wilson, *Maneuver and Firepower,* 267-270.

27. Midgley, *Deadly Illusions,* 34.

28. Wilson, *Maneuver and Firepower,* 270.

29. Wilson, *Maneuver and Firepower,* 270-271.

30. Linn, *Elvis's Army,* 84; Midgely, *Deadly Illusions,* 67.

31. Wilson, *Maneuver and Firepower,* 271.

32. Letter, no file, Office of the Chief of Engineers to Commanding General, Continental Army Command, Subject: Pentana Army, 20 October 1955; quoted in John J. Midgley, Jr., *Deadly Illusions,* 67.

33. Midgley, *Deadly Illusions,* 66-67.

34. Wilson, *Maneuver and Firepower,* 272-274.

35. Midgley, *Deadly Illusions,* 28-29.

36. Carter, *Forging the Shield,* 299-307.

37. Midgley, *Deadly Illusions,* 53-54, 75.

38. Linn, *Elvis's Army,* 87-89; Midgley, *Deadly Illusions,* 67-69.

39. Linn, *Elvis's Army,* 89.

40. Linn, *Elvis's Army,* 89.

41. Linn, *Elvis's Army,* 90.

42. Linn, *Elvis's Army,* 90.

43. Linn, *Elvis's Army,* 74.

44. Linn, *Elvis's Army,* 98.

45. For a similar conclusion related to Cold War strategy, see, Ingo Trauschweizer, *Maxwell Taylor's Cold War: From Berlin to Vietnam* (Lexington, KY: University Press of Kentucky, 2019), 207-211. He argued that, "Strategy in general has increasingly become the fault line between operational art and politics and policy. It should be the connective tissue."

46. Trauschweizer, *Maxwell Taylor's Cold War,* 73-90.

47. Or in the case of a nation wielding the majority of nuclear weapons in the 1950s, the global good. See Trauschweizer, *Maxwell Taylor's Cold War,* 205-208. Though Maxwell Taylor never abandoned the idea of Flexible Response, Trauschweizer argued that Taylor's perspective towards defense policy evolved and "sounded more like Dwight Eisenhower and less like the Maxwell Taylor of the 1950s." It is interesting how little attention Taylor's change of mind has re-

ceived from historians though undoubtably due to the focus on Taylor's service in the Eisenhower and Kennedy administrations.

48. The two basic problems of national security strategy outlined in NSC 162/2 were "meet the Soviet threat" and "avoid seriously weakening the US economy." Executive Secretary, National Security Council, "Report to the National Security Council by the Executive Secretary (Lay)," in *Foreign Relations of the United States, 1952-1954,* vol. 2, part 1, *National Security Affairs,* ed. Lisle A. Rose, Neal H. Petersen, and William Z. Slany (Washington, DC: Government Printing Office, 1984), Document 101, 578, https://history.state.gov/historicaldocuments/frus1952-54v02p1/d101. See also, Bacevich, *The Pentomic Era,* 16.

49. Bacevich, *The Pentomic Era,* 148. Midgley supported Bacevich's claim and argued that "The [US] Army's missteps [leading to the failure of the Pentomic Division] can be traced in large measure to its continuing failure to define concretely the tactical requirements of the nuclear battlefield." See Midgely, *Deadly Illusions,* 31.

50. Linn, *Elvis's Army,* 85. He argued that Eisenhower "believed that while General War meant mutual suicide, the threat of atomic annihilation or 'massive retaliation,' was an essential diplomatic tool."

51. Mutual Security was similar to today's security cooperation and focused on working with partners and allies to assure and develop partner capacity. Civil Defense focused on securing the homeland through Continental Defense and post-nuclear strike response.

52. Carter, *Forging the Shield,* 313.

53. Carter, *Forging the Shield,* 466-467.

54. Wilson, *Maneuver and Firepower,* 293-303.

55. Frank J. Sackton, "The Changing Nature of War," *Military Review* 34, no. 8 (November 1954): 62.

56. For Clausewitz's extremes of interaction see Carl von Clausewitz, *On War.* ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1984), 75-89.

57. Doctrine is the most reliable method to determine organizational theory though it does not imply agreement or compliance by senior army leaders and subordinate organizations.

58. For an overview of how the US Army responded to the postwar environment in terms of occupation and readiness see, Hanson, *Combat Ready?,* 13-28.

59. The best example of senior army leaders using the Korean War as a model of limited war is J. Lawton Collins, *War in Peacetime: The History and Lessons of Korea* (Boston, MA: Houghton Mifflin, 1969).

60. Trauschweizer, *Cold War US Army,* 67.

61. Linn, *Elvis's Army,* 94.

62. Robert Osgood notes that, "One great difficulty in developing a military establishment and a military strategy and tactics capable of meeting the threat of limited war lies in the fact that the requirements for limiting war do not necessarily correspond with the requirements of fighting limited wars effectively; and

yet, the fulfillment of one requirement is incomplete without the other." Robert Osgood, L*imited War: The Challenge to American Strategy* (Chicago, IL: University of Chicago Press, 1957), 234.

63. Linn, *Elvis's Army,* 49, 77.

64. Linn, *Elvis's Army,* 48-49.

65. Kretchik, *US Army Doctrine,* 172.

66. Karl Eklund, "The Nature of Total War," *Military Review* 30, no. 1 (April 1950), 15.

67. For an overview of US and NATO defense posture and the political question, see Marc Trachtenberg, *History and Strategy,* 165-168.

Chapter 2
Consolidate and Reorganize the Command and General Staff College, 1946-1950

In 1949 a CGSC instructor, Lieutenant Colonel Vernon A. Shurm, wrote a monograph titled the "Strategic Problems of the Armed Forces of the United States." In his analysis he identified that the "Armed Forces are faced with the problem of increasing military efficiency, and preparing for total war without becoming a garrison state and destroying the very qualities, virtues, and principles of a democracy."[1] Yet, despite Shurm's claim the armed forces should prepare for total war, it was unclear what kind of war the US Army would fight in the atomic age. Shurm noted that:

> The meager information which has been disseminated to the Armed Forces is insufficient to indicate the effect of absolute weapons on composition, training, logistics and tactical doctrine. The reported devastating effect of the two bombs dropped on Japan in 1945 is an indication, however, that Armed Forces of World War II type should be reexamined in the light of the existence of absolute weapons.[2]

Despite Shurm's argument, leaders at the Command and General Staff College spent the time between 1946 and 1950 more focused on the role of the US Army education system and CGSC's mission than doctrine development. As the college produced studies about education and organizational focus, officers debated lessons learned and the influence of technology as the army demobilized after World War II. If anything, the focus at CGSC was not to prepare for the next war but to consolidate and refocus after the disruption caused by curriculum changes made to support mobilization during World War II. Yet, the focus on the college's organization and mission in the late 1940s provided opportunities for doctrine development in the 1950s.

Between 1946 and 1950 three studies influenced the college's mission, organization, course content and methods. The Gerow Board Report in 1946 and the Eddy Board Report in 1949 focused on the entire US Army education system while the Wood Board Report in 1948 focused on the organization of the college and doctrine used for instruction.[3] Each board focused on the role of specific schools and the objective of the US Army education system. While references to operational requirements in the board reports was implied through emphasis on preparing officers to serve in command and staff roles, the role of doctrine development was

not emphasized. The reports did emphasize the importance of realistic scenarios and doctrine used for instruction. Two key questions emerged from the studies that influenced doctrine and instruction throughout the 1950s. First, what was the role of the Command and Staff College in the US Army? Second, the staff and faculty asked was if they were teaching the right things—did the doctrine in the curriculum adequately prepare officers? By 1950 the college had not made significant changes to the curriculum, but it had reorganized to provide more efficient instruction. As the college entered the 1950s consensus grew within the college that doctrine drove the curriculum and the current doctrine lagged behind the rapidly evolving operational environment. It would take the detonation of the Soviet's first atomic weapon in August 1949 to convince the commandant, General Eddy to commission studies on atomic doctrine and how it supported instruction at CGSC.[4]

On 23 November 1945 Secretary of War Robert P. Patterson commissioned the Gerow Board, named after its president and CGSC Commandant Lieutenant General Leonard T. Gerow, to prepare a plan for the US Army educational system.[5] The need to mobilize large quantities of staff officers during World War II had disrupted the educational system throughout the US Army, to include CGSC. Hailed as one of the keys to victory, the mission and scope of CGSC required evaluation as the war ended and the US Army's role in the world expanded based on the United States' increased geopolitical commitments as one of two remaining superpowers.[6] The Gerow Board solidified the importance of CGSC as the senior tactical school in the US Army education system. Yet, the board did not make any changes to the curriculum. Rather it confirmed that the regular course at CGSC would be 10 months and that the study of staff techniques and command would not be separated into separate schools. Both recommendations continued to influence debate about the college's mission and organization throughout the 1950s and created tension as staff and faculty debated the balance between teaching future commanders or staff officers.

The Gerow Board considered, but did not recommend, three schools for mid-career officers before determining that a single Ground College was more suitable. The first school the board considered was a General Staff School to teach officers staff techniques for service on a general staff.[7] The Combined Arms College was the second school considered by the board and it focused on how to command at the division level. The third school was the Ground Command College to provide "instruction in the command and staff functions of the corps, army, and army group."[8]

Whereas the General Staff College taught procedures, the Combined Arms College and Ground Command College taught the art of command and staff work higher levels of command. The board believed the lessons of World War II mobilization dictated that only one college should be created to enable "mass production of officers" during war and that a shorter 10-month course minimized the time officers spent away from operational service.[9] The board concluded that "the prewar Command and General Staff School was the nearest counterpart to the proposed Ground College," and that "the establishment of the Ground College precludes the necessity for reestablishing the Command and General Staff School in its former status."[10] The consideration of the three-school concept exposed a debate how to prepare commanders and staff officers that continued throughout the 1950s. Specifically, did preparation for staff support the development of future commanders? The Gerow Board's recommendation for a single college did not settle the debate but it created a structure that withstood pressure to delineate the roles between the commander and staff. The structural constraint of one college moved the debate to the structure of the curriculum.[11]

The Secretary of War approved the basic structure of the education system outline by the Gerow Board but the passage of the National Security Act nullified some recommendations.[12] The National Security Act of 1947 nullified the air component in the education system because the Department of the Air Force gained its autonomy and oversight of air education. Though the Secretary of War did not accept all the board's recommendations, the Gerow Board standardized the basic structure of US Army officer education for the postwar era that enabled doctrine and organization changes to be transmitted through the force efficiently.[13] The Secretary of War directed that General Gerow, Commandant of the Command and Staff School, begin the first class of the Command and Staff College in the 1946-1947 academic year.[14] The length of the course reflected the board's recommendation of 10-months.[15]

Another significant contribution of the Gerow Board that the Secretary of War did not approve was that the instruction include the analysis of "the effect improved material and new inventions may have on [US] Army Ground Force operations."[16] Though the Secretary of War did not include that recommendation in his directive about the college's mission, historian Boyd L. Dastrup argued that after 1946 "commandants and faculty members intended to pay more attention to current developments in technology and their impact on tactics and the [US] Army."[17] Here was one of the earliest signs of personal influence on doctrine development during

the atomic age. Despite no formal directive, General Gerow sensed that the US Army needed to adapt to technology or fall behind.

The Gerow Board made significant contributions to the US Army education system, but the National Security Act of 1947 forced a review of the structure. In 1948 the next commandant, Lieutenant General Manton S. Eddy commissioned the Wood Board to study the college's organization and provide recommendations to make the college "more efficient and more competitive for money and recognition."[18] The Wood Board recommended smaller class sizes of forty students and less specialization within the curriculum. Leaders at the college believed the rapid technological and geopolitical change of the postwar era required officers that "had a broad and in-depth understanding of all [US] Army operations and staff function."[19] The faculty reorganized to focus on the broader scope of instruction rather than specialization. Prior to the Wood Board, the faculty organized into four schools: School of Personnel, Intelligence, Combined Arms, and Logistics. The schools included instructors assigned that specialized in the subject matter and taught larger classes. Following General Eddy's approval, and approval by General Jacob L. Devers, Chief of the Army Field Forces, the faculty reorganized into four departments: personnel, intelligence, operations and training, and logistics.[20] The department structure moved instructors under the Director of Instruction and Staff, a new position created after the Wood Report. This decreased the specialization in the course as instructors had to teach topics based on the curriculum, not their specialty.

The Wood Board raised the question of specialization in terms of staff positions but also the type of operations US Army officers should be competent to plan and execute after graduation from the college. The instruction retained elements of specialization despite Eddy's preference. Each department presented a 10-week sub-course focused on a specific general staff function and officers participated in one sub-course, approximately a quarter of their time at CGSC.[21] Eddy submitted the changes proposed by the Wood Board to the Chief of the Army Field Forces, General Jacob L. Devers, but Eddy thought that officers were not adequately prepared if they only studied one staff function.[22] Colonel E. A. Salet, an instructor at CGSC during the reorganization noted that "Although the two post-war years at the Command and General Staff College were regarded as being experimental, they have proved that the instructional program is basically sound and will produce adequate results."[23] Despite Salet's claim, there was little to suggest that the faculty had made significant changes in curriculum because there was no change in doctrine. Instruction remained

focused on procedure rather than concepts. Even the publication of an updated FM 100-5 *Operations* in August 1949 did not change the operations of the US Army, other than to emphasize that "regulating the chaos of war through doctrine required continually adjusting its tactical concepts to ever-changing technology."[24] While US Army leaders did not reevaluate its doctrine, they launched another report on the US Army's officer education system under the direction of General Eddy.

The Eddy Board published its finding on 15 June 1949, one month before the Soviets ended the United States' atomic monopoly and two months before the publication of the 1949 version of FM 100-5 *Operations.* The approval of the National Security Act of 1947 National Defense Act caused the Secretary of the Army to commission a board to review the "adequacy" and "appropriateness" of each school level in the education system and identify any overlap between the various levels of officer education. Specifically, the Eddy Board was to determine if the Army War College was necessary given the scope of the National War College. The Eddy Board concluded that "a definite gap" existed at the higher levels of the officer education system and recommended the reestablishment of a school comparable to the Army War College which was disbanded during World War II.[25]

General Eddy made his recommendation based on his evaluation of the 10-month course at the Command and General Staff College. The Eddy Board identified overcrowding in the CGSC curriculum while also noting that the US Army education system needed more emphasis on business management, atomic concepts, and joint service considerations;

> Despite the excellent methods of learning currently employed at the Command and General Staff College, it has been demonstrated from 3 year's experience that too much instruction is crowded into the 10-month Regular Course. As already pointed out, this course covers in 10 months what was formerly accomplished before World War II in 2 year years at the Command and General Staff School and the Army War College. Furthermore, the increased number of problems which confront the [US] Army as a result of new developments in warfare, and the tremendous amount of technical knowledge gained from World War II experiences, have added to the time required for instructional purposes.[26]

Leaders at CGSC grew concerned about the time required of faculty and military students, to learn the required material with the increasing po-

tential that more doctrine was required to meet the changing character of war. Though US Army doctrine had not changed, staff and faculty believed the curriculum already exceeded the college's capacity in time and focus due to the reduction of 10-months tenure without reducing the curriculum from pre-World War II requirements. The Eddy Board Report noted that the officers did not have time to study the roles of commanders and staff at the division and corps level.[27] Contributing to the curriculum overload was the incorporation of specialized courses in personnel, organization, training, operations, and logistics at levels above the corps level which had previously been taught at the Army War College.[28] The curriculum at CGSC was overcrowded because it attempted to teach the pre-World War II CGSC and Army War College curriculum in 10-months when each school's curriculum required a year-long course.[29] Before CGSC and the US Army could incorporate atomic concepts into the curriculum, the college needed to reorganize.

After four years to consolidate and refocus, the college's role in the US Army education system was affirmed and the college had reorganized to focus on teaching officers how to serve as commanders and staff at the division, corps, and army level. The first question of what the college's role in the postwar US Army was had been answered by the Gerow and Eddy Boards. The overcrowding of the curriculum and the lack of direction made it difficult to answer the second question: was the college teaching the right doctrine and ideas to prepare officers as commanders and staff officers? An already overcrowded curriculum and the no perceived need to shift focus from combined arms operations made it difficult to answer the second question. The loss of the United States' atomic monopoly created a sense of urgency.

After the Soviet Union detonated its first atomic weapon, Eddy directed a group of instructions to develop a field manual focused on how to use atomic weapons and instructional material for the curriculum based on the field manual.[30] John Midgley argued that studies produced doctrine "identical to conventional maneuver tactics with the addition of powerful long-range fire support."[31] FM 100-31 *Tactical Use of Atomic Weapons* was approved and published by November 1951, yet it provided little certainty and the field manual included cautious statements such as "available data on atomic missile effects on tactical dispositions are inadequate."[32] Prior to the development of FM 100-31 the curriculum included two atomic courses both focused on the physics and military effects of atomic weapons.[33] The warnings about insufficient data in FM 100-31 indicated that atomic courses at CGSC prior to 1950 were more speculation and theory than

accurate information about how to use tactical atomic weapons. Though there were no significant curriculum changes to the regular course, Eddy directed Colonel G. C. Reinhardt and Lieutenant Colonel W. R. Kintner to study the problem of atomic weapons in warfare and they published *Atomic Weapons in Land Combat* in 1953.[34]

The publication of FM 100-5 *Operations* in September 1949 did not change the US Army's operating concepts, and the pages of *Military Review* echoed a similar focus on the past and present rather than the future. In April 1949, the editors of *Military Review* published "The State of the National Military Establishment" based on Secretary of Defense James Forrestal's "First Report of the Secretary of Defense, 1948."[35] Forrestal reaffirmed the US Army's role as "land forces will continue to be indispensable as a primary fighting arm," while noting that "a considerable portion of the strength of the [US] Army has gone into…occupation and military government."[36] Occupation fixated the attention of officers at the college as well. An article in *Military Review* in December 1949 made note of lessons learned from the Korean occupation. Major G. Harry Hupert, an infantry officer assigned to the CGSC faculty, argued that "a long-range educational program for selected Armed Forces officers in geopolitics" should be developed because "the [US] Army has always been well-trained to win wars. In the future we must be as well-trained to win the peace."[37] As Hupert contemplated learning lessons from World War II and occupation operations, the article immediately after Hupert's in *Military Review* featured another officer who considered how the US Army should prepare for the future. Lieutenant Colonel William R. Kintner argued that "Peace cannot succeed unless we continuously demonstrate the utmost determination to defends ourselves. Our planning for peace must not imply that we will loose [*sic*] an unwanted war."[38] Each officer highlighted a key idea that permeated US Army doctrine in the 1950s. From 1951 to 1953 the US Army was challenged to demonstrate its determination not to lose an unwanted war *and* to develop and train a force to win the peace, or at least deter future wars. As CGSC entered the 1950s with a clearer vision of its role in the US Army education system, the US Army and the college's commandants turned their focus to the doctrine used in the curriculum and if it was adequate for the next war.

Notes

1. Vernon A. Shurm, "Strategic Problems of the Armed Forces of the United States," (Paper, US Army Command and General Staff College, 31 May 1949), 2, https://cgsc.contentdm.oclc.org/digital/collection/p124201coll2/id/278/rec/1.

2. Shurm, "Strategic Problems of the Armed Forces," 4.

3. Any determination of about the specific number of boards commissioned to study the mission and organization of CGSC is complicated due to the reliance on the preserved documentary record. Defining a specific number of studies is also problematic because the college routinely assessed its curriculum and organization based on the recommendations of the Gerow Board and the preference of individual commandants. In short, there are a wide range of internal assessments that have varied levels of importance depending on what aspect of the college researchers want to analyze.

4. Rose, *Evolution of Nuclear Doctrine,* 84-85.

5. War Department Military Education Board, *Report of War Department Military Education Board on Educational System for Officers of the Army* (Washington, DC: War Department, February 17, 1946), 14, https://auls.insigniails.com/Library/ItemDetail?l=0013&i=1186561&ti=0. (Hereafter referred to as Gerow Board Report.)

6. See 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).

7. Gerow Board Report, 53.

8. Gerow Board Report, 53.

9. Gerow Board Report, 53.

10. Gerow Board Report, 60.

11. The debate over the development of commanders and staff officers is present throughout the curriculum planning guidance, internal staff studies, and *Military Review* articles. The focus of the debate was on the ideal graduate not the doctrine development at CGSC. For an analysis of the debate over the type of officer CGSC produced see Stewart, "Raising a Pragmatic Army."

12. Boyd L. Dastrup, *The US Army Command and General Staff College: A Centennial History* (Manhattan, KS: Sunflower University Press, 1982), 91.

13. Tyler, *The History of Fort Leavenworth, 1937-1951,* 24-26. The basic structure of the education system proposed by the Gerow Board continues to influence US Army education today.

14. The name was changed to Command and General Staff College on May 8, 1947. See Tyler, *The History of Fort Leavenworth, 1937-1951,* 25.

15. "Tab A, Memorandum for the Commandant, Command and General Staff School, SUBJECT: Command and Staff College," 27 May 1946, Gerow Board Report.

16. Gerow Board Report, 59.

17. Dastrup, *A Centennial History,* 91.

18. Dastrup, *A Centennial History,* 91. As with most boards commissioned at the college, the board was named after its president Colonel Stuart Wood.

19. Dastrup, *A Centennial History,* 92.

20. E. A. Salet, "Reorganization of the Command and General Staff College," *Military Review* 28, no. 6 (September 1948): 10-12.

21. Salet, "Reorganization," 10.

22. Department of the Army, Office, Chief of Army Field Forces, "Annex 6, Higher Army Schools," *Board on Educational System for Officers, Report of the Department of the Army Board on Educational System for Officers* (Washington, DC: US Department of the Army, June 15, 1949), 38-40, https://auls.insigniails.com/Library/ItemDetail?l=0013&i=1186561&ti=0. (Hereafter referred to as the Eddy Board Report.).

23. Salet, "Reorganization," 12.

24. Kretchik, *US Army Doctrine,* 161.

25. Eddy Board Report, 3-4.

26. Eddy Board Report, 37.

27. Eddy Board Report, 37.

28. Eddy Board Report, 37-38.

29. Eddy Board Report, 4.

30. Rose, *Evolution of Nuclear Doctrine,* 84-85.

31. Midgley, *Deadly Illusions,* 15.

32. DOA, FM 100-31, iii-iv.

33. Rose, *Evolution of Nuclear Doctrine,* 83.

34. Reinhardt and Kintner, *Atomic Weapons in Land Combat,* "Preface."

35. James Forrestal, "The State of the National Military Establishment," Military Review 29, no. 1 (April 1949): 3-13.

36. Forrestal, "National Military Establishment," 4.

37. G. Harry Hupert, "Korean Occupational Problems," *Military Review* 29, no. 9 (December 1949): 16.

38. William R. Kintner, "The Military Foundations of Peace," *Military Review* 29, no. 9 (December 1949): 21.

Chapter 3
What Kind of War?
Training and Education for the Next War, 1951-1953

> The choices for war are seldom clear or unambiguous, despite all the military planning and analysis rhetoric; but the choices for the institution are almost always urgent and painfully apparent.
>
> —Carl H. Builder, *The Masks of War*

Preparing for the next war and the reality of an opponent with an atomic capability required college leaders to answer the second question raised by the organizational studies of the late 1940s: was the college teaching the right doctrine? The role and mission of CGSC in the 1950s was to prepare officers to serve as commanders and staff officers at the division, corps, and army level. College leaders analyzed the curriculum to determine if it produced an "end product" required by the operational environment of the 1950s. Adapting the curriculum to changes in warfare and developing future war concepts required full-time analysis and study. A 1951 CGSC staff study analyzing the role of CGSC noted that:

> The goal, or 'end product' of any system of professional education is determined by the level and complexity of the jobs which the members of the profession have to perform. To arrive at a proper decision concerning the 'knowledge qualifications' of the graduate of the Command and General Staff College, a determination must be made of the necessary qualifications of the command and general staff of the division, corps, army, and comparable levels of the communications zone.[1]

Before CGSC leaders could prepare future commanders and staff officers, CGSC had to determine what operational environment those officers would face in the future. As instructors at CGSC reviewed the curriculum and debated ideas of future war in *Military Review,* a connection emerged. Doctrine drove instruction, and instruction had to be tempered by how much students could learn *and* how instructors saw the purpose of the college. Debates over the nature of future war settled over those interactions of instructor, student, and curriculum and left the college curriculum static except for small additions of atomic scenarios dictated by CONARC.

The CGSC curriculum in the 1950s was a vision of the operational environment in the atomic age; it defined war through the expected requirements of future operational leaders. The college's publication,

Military Review, reflected the ideas of CGSC instructors and the college administration. Together the curriculum, administrative planning documents, and articles in *Military Review* reveal how leaders at the college thought about war during the 1950s. The facts, assumptions, and military experiences that grounded those visions of war illustrate the challenges of doctrine development in the 1950s. As the staff and faculty at CGSC looked into the future and envisioned war, a limited war developed in Korea and presented a contrast to assumptions that had been building since 1945.

As leaders at CGSC reviewed student performance and instructional methods, the role and mission of the college remained a key concern. Chief among the concerns was the "uncertainty as to future requirements for graduates."[2] Changes in the US Army school system, combined with technological and geopolitical changes to the role of the United States' military power, added to the uncertainty about the future and how the college should prepare officers to serve as staff officers and commanders in future war. CGSC leaders did not envision a complete rewrite of the curriculum for 1952-53. They noted that, "A definite change in the organization of the army, mission of the college or other similar event might require a complete change in curriculum in any one year."[3] Surprisingly the incorporation of tactical nuclear weapons did not necessitate a rewrite of the curriculum. It would take a Department of the Army level change in doctrine or organization concerning tactical nuclear weapons to necessitate a curriculum rewrite. CGSC leaders concluded that, "In the absence of any such major change, no requirement exists for a complete change in curriculum every year unless the previous year's curriculum was 100% unsound."[4] One factor that influenced the decision to not rewrite the curriculum was the fact that the burden of developing concepts and scenarios to train student officers fell on faculty. More importantly, faculty would have to educate themselves on a topic that "was unknown a few years ago" requiring a level of self-study and knowledge in addition to the normal duties expected of faculty at CGSC.[5] The tension between teaching, developing new concepts, and writing new subjects for the curriculum remained a key issue throughout the 1950s at CGSC.

Yet, change did occur in small increments, and the CGSC curriculum included atomic warfare scenarios for the first time in the 1952-1953 academic year. The November 1951 analysis of the CGSC regular course curriculum noted that while "changes in atomic instruction are not yet firm; a corresponding increase will be made."[6] The increased emphasis on the tactical use of atomic weapons included five division level map

exercises and six corps map exercises—a significant increase from the two corps map exercises used in 1951-1952 course.[7] Curriculum changes also included "consideration of atomic capabilities in most of the Division, Corps, Army, and Communication Zone problems."[8] Assistant Commandant Colonel Max S. Johnson asked for faculty feedback to improve instruction in the regular course. More importantly, he wanted individual comments and did not provide his list of proposed subjects. He did not want to stifle feedback as faculty considered modifications to the regular course.[9]

While Johnson requested input to course modifications he also noted that, "It will be impossible to arrive at the optimum content of the Course without a clear definition of the end and purpose of our instruction."[10] Yet, without a clear purpose for the US Army in the atomic age, it was difficult to align an already overcrowded curriculum with the requirements of future war. By 1952 the US Army had conducted tests, such as DESERT ROCK, to determine the effects of atomic weapons. Other maneuver exercises, EXERCISE SNOWFALL, simulated the use of tactical atomic weapons as additional firepower.[11] Forward deployed units in USAREUR did not incorporate, nor mention, atomic scenarios into exercises until 1954.[12] The US Seventh Army stationed in Europe became an operational proof of concept for ideas about future war.[13] While the Seventh Army provided an operational approach to testing ideas about future war, CGSC assumed the role of experimenting with doctrine and concepts in its curriculum and internal staff studies.[14]

Officers at CGSC and deployed in Europe recognized the need for doctrine and organization that met the requirements of the operational environment. CGSC instructor, Lieutenant Colonel Vernon A. Shurm's analysis of the Strategic Problems of the Armed Forces of the United States in 1949 identified that, "Absolute weapons may have a decided effect on the organizational structure, training and tactical doctrine of the Armed Forces."[15] Weapons development influenced the US Army's structure, training and doctrine but domestic political debates complicated visions of how the US Army would wage war.[16] Lieutenant Colonel Donald T. Kellet, an infantry officer teaching at CGSC, questioned if atomic weapons would be decisive in a future war, and argued for an organizational change to the infantry division that emphasized more infantry and artillery units.[17] Kellet's analysis of the infantry division stemmed from his belief that "it is prudent to remember that progress is dynamic. To remain static is impossible—the choice is either to go forward or backward."[18] While US Army leaders did not have a coherent vision of atomic warfare, officers assigned to CGSC

saw the need to develop a doctrinal response to the looming atomic battlefield.

Despite the perceived need for doctrine, the college's assessment of the curriculum in November 1951 stated that:

> The tactical use of atomic weapons does not come under this condition [factors that necessitated changing the curriculum] as the details of the application of doctrine in this definitely new field must yet be developed at the Command and General Staff College and by field maneuvers. If all of the implications of this weapon were definitely known at this time, including the required changes in organization, etc., the above condition would exist.[19]

The college identified that the current operational environment required the incorporation of atomic considerations but the uncertainty, despite the studies commissioned by Eddy in 1949, led to the 1952-1953 curriculum containing four atomic courses out of a total of 248. The seventeen hours of atomic instruction out of 1,294 total instructions hours planned for the 1952-1953 academic year centered on an eight-hour map exercise while one of the four atomic courses was a one-hour film students watched in class.[20] CGSC leaders remained hesitant to make significant changes to the curriculum when much of the information sounded like "prophecies and conjectures" with little data to support a curriculum change.[21]

Tactical atomic weapons were not the only factor CGSC leaders considered in curriculum development. Lessons from the Korean War and the "objectivity permitted by the current international situation" in the event of general war led CGSC leaders to recommend a "continued planned study" of the curriculum.[22] The Korean War experience demonstrated that officers needed to understand defensive doctrine. Leaders at CGSC like Colonel S. W. Foote noted that, "It is believed that any future war will find the United States forces on the defensive initially. This emphasizes the need for complete knowledge of defensive doctrine by the United States Army."[23] The relationship between the offense and defense in future war was one debate that required study. As early as August 1945, Hanson W. Baldwin's argued in his *LIFE* magazine article "The Atom Bomb and the Future of War" that the pairing of the rocket and atomic bomb, "suggests the ultimate triumph of the offense over the defense—'ultimate,' that is, insofar as one can foresee the future."[24] The fear of a surprise attack on the United States by an enemy armed with atomic missiles made the defense necessary but also impractical as most people perceived a successful de-

fense as all or nothing—either all incoming missiles were defeated or the United States would suffer irreparable harm. The idea of time and surprise weighed heavily on ideas about future war. Even the US Army's main doctrine manual, FM 100-5 *Operations* contained the "Lessons of the Pearl Harbor Attack" as an appendix to support "national defense and preclude a repetition of the failure of 7 December 1941."[25] The defensive nature of the United States' forces in Europe and the US Army's experience in Korea left the service concerned about being surprised by an enemy. US Army leaders wanted the correct forces and equipment to defend against numerically superior forces *before* a war started.

Leaders at CGSC recognized a shift had occurred in warfare. Not only had nations fought the last two world wars as total wars, but the shift to total war signaled a shift in organizational perspective from "parochial war" where commanders focused on their service and branch to a joint service war where operating as a joint force was inevitable.[26] Another shift in thinking focused on war termination. The US Army's role in occupation, and in June 1950, of fighting against communist expansion, invited questions about war's purpose and war termination. Colonel John G. Van Houten argued that "If the reason for war is the establishment of a more perfect peace, then the conduct of war, and the preparation for it, must be conditioned by the results that are expected to be accomplished."[27] The destructive nature of atomic weapons made any calculation about the results of war uncertain.

The uncertainty about the character of future war led some officers like CGSC instructor Lieutenant Colonel Karl Eklund, to theorize frameworks to regulate operational concepts. Eklund argued that total war encompassed three phases—Cold War, Blitz War, and Total War. The threat of a Blitz War presented challenges to CGSC instructors writing for *Military Review.* First, the threat of a Blitz War reduced the time available to mobilize and train soldiers before they deployed overseas.[28] The shadow of the Second World War influenced the debate. Colonel Wesley W. Yale argued that any delay in a mobilization program would lead to "the sacrifice of brave but inept soldiers to a rugged and ruthless foe" as in 1942-1943.[29] Some like Mark S. Watson of the Department of the Army Special Staff argued that the nation needed military power "at hand" because of the "advanced planning and prolonged preparation" a military force required. Inadequate military power left any foreign policy of the United States unsupported because the "mere possession of military power" supported foreign policy with a "respectable basis in physical force."[30] The cold war phases saw aggressors attack to gain war objectives "without re-

course to open military warfare."[31] Lieutenant Colonel Eklund argued for more "regimentation" of society in the event of war. He noted that while regimentation "had a distasteful connotation…[n]evertheless, should war come...a totality of effort far in excess of that which supported World Wars I and II will be required."[32] And while the National Security Act of 1947 had reorganized the defense establishment in the United States, Eklund proposed another reorganization to maximize mobilization. His "National Organization for Total War" organized the government within the four instruments of national power (political, psychological, military, economic) with supporting agencies and bureaus under the president.[33] Officers debated the character of future war while US Army doctrine remained focused on combined arms operations as outlined in the 1949 version of FM 100-5 *Operations.* The debate raised by Eklund in *Military Review* demonstrated that CGSC instructors had identified phases of war with varying political objectives, yet US Army doctrine made no mention of limited objectives until the 1954 revision of FM 100-5.

The names for future war continued to accumulate in the CGSC curriculum throughout the 1950s. General War, Limited War, Local War, Situations Other than War, and the list continued with the addition of atomic, non-atomic, active atomic. Yet, those terms focused on the character of war—warfare or how military forces fought. Lurking beneath the visions of the next war was a simple, but unknown problem: war's nature. Lieutenant Colonel Chester F. Allen noted the problem in his article analyzing the principles of war in the age of technological change. He argued that "under the compelling stress of war, there appears to be no limit to what nations are willing to do in order to win. In the future, the decision to use or not use these weapons [atomic, biological, and chemical] in war will depend on the political and military situation that exists at the time."[34] Planning assumptions that influenced doctrine development reflected uncertainty about political objectives and restraints on the means of war. In an article in the same edition of *Military Review* Allen's fellow Infantry officer Lieutenant Colonel Richard W. Whitney argued that, "In the age of supersonic warfare, strategic war plans must meet any eventuality. These plans must be based on specific situations and assumptions about our enemies, our allies, and our own capabilities...only through the employment of planning assumptions can these future situations be developed."[35]

Army leaders focused on capabilities and contingencies—where and how the US Army would fight in the future. Leaders assumed the US Army would fight for military victory but the conditions limiting the objectives and means remained uncertain. This created a challenge as doctrine writ-

ers had to develop an operational concept to achieve battlefield victory without knowing if the ways and means in the plan would be allowed by "the political and military situation that exists at that time."[36] The decision to prepare for the most dangerous threat, the Soviet Red Army, was prudent. Yet in the early 1950s, fears of manpower shortages for future war, informed by experiences fighting against North Korean and Chinese troops in Korea and the numerical superiority of Soviet forces in Europe, led some officers to advocate for increased firepower as a substitute for manpower.[37]

Though debate over escalation continued throughout the 1950s, the idea of general war, even if it involved nuclear weapons, seemed like a better alternative to massive retaliation. US Army officers argued that preparing for general war not only deterred the Soviet Union but offered an alternative to massive retaliation. For the US Army the objective focused largely on the military defeat of the Soviet Union. Yet, a military victory would not change the socio-political problems that led to the war. [38] Van Houten argued that "among military and among non-military persons, the idea persists that utter defeat of the enemy carries with it the solution to the problems which instigated the war." Van Houten questioned if military victory had any meaning if the US could not solve the socio-political problem at the heart of the conflict and emphasized the connection between military plans and political policy:

> Its purpose is merely to point out the short-sightedness of the student and thinker who does not project his mind further than the ending of an enemy's 'will to resist.' It may be argued in this connection that this is as far as military thinking should go, and that planning beyond this point is the job of the statesman. Such an argument is fallacious.[39]

The US Army's doctrine focused on combined arms warfare to defeat the enemy but in the age of atomic weapons, and the United States' political focus on limiting defense spending, instructors at CGSC identified the gap between doctrine and reality. The US Army's doctrine did not account for limited objectives before 1954.

In a *Military Review* article, CGSC instructor Lieutenant Colonel Frank W. Moorman reflected the mindset of US Army leaders in the 1950s when he stated that "there is a swirling undercurrent of thought and wondering that bubbles forth in the form of an idea for winning the next war instead of the last one."[40] He identified the trends of highly mobile striking force, dispersion, firepower, and a reduction of service troops. More im-

portantly, Moorman identified the challenges that undermined future concepts like the pentomic division that sought to maximize combat power by reducing service troops. Moore noted that, "The logistician is faced with certain difficult realities if we are to have a harder-hitting, more highly mobile force. He must bring forward to the combat area more tonnages and more items. He must have the service troops to handle these additional items. He will take up more space on the ground."[41] Despite Moorman's concerns about the challenge of meeting the imperatives of future war he provided feasible suggestions based on observations from a student exercise at CGSC involving an airborne corps operation.[42]

Curriculum planners at the CGSC grappled with the future of war in the atomic age while also adapting to routine friction of student preparation and operational experience.[43] Previous military experience influenced the effectiveness of officers' education. One instructor writing in *Military Review* suggested military students focus on learning doctrinal concepts rather than dismissing doctrine because it did not fit their personal experience.[44] While some officers arrived to CGSC thinking they knew better than their instructors, others did not have the operational or doctrinal background to keep up with their peers. A staff study noted that, "There is a variation of significant proportions in the background preparation of students attending the Command and General Staff College."[45] Beyond the challenges of designing an effective and relevant curriculum, instructors at CGSC dealt with timeless pedagogical issues like resistance to formal instruction and officers that lacked effective study skills. Doctrine used for instruction had to prepare officers for the next war, but faculty realized that the ideal curriculum had to account for the reality of student capabilities.

The staff and faculty took measures to increase the efficacy of education at CGSC. The 1950 curriculum included a block of instruction on study methods and one instructor, Lieutenant Colonel O. Z. Tyler, Jr. wrote an article in *Military Review* to communicate the purpose of the instruction and to alert officers preparing to attend CGSC about student behaviors that interfered with learning. He noted that, "You may wonder at the inclusion of this elementary field in the College curriculum…But many military students have been long away from studying. Many have forgotten, never knew, or fail to apply study devices."[46] CGSC Commandants emphasized student preparation and instructional methods throughout the 1950s as they also focused on developing doctrinal concepts that would meet the requirements of future war. Though college leaders wanted to develop a useful curriculum, they could not ignore the methods of instruction or the students' capabilities.

The September 1951 guidance to faculty analyzing the curriculum asked faculty to consider if CGSC was a graduate level school, and if it was conducted as one. The resulting November 1951 staff study suggested the question of CGSC being a graduate level school was "unimportant" and that CGSC should be considered a professional school because it met the demands of the profession.[47] Another reason the staff study authors argued that CGSC should not be considered a graduate school was that officers had "little or no time reserved for reflective thinking, original thought, or individual effort."[48]

There was a need for honest analysis of how technology changed warfare post-1945. Lieutenant Colonel Chester F. Allen, an instructor at CGSC, noted that US Army leaders "must not limit [their] considerations to the atom bomb alone" because trends of increasing speed, mobility, and firepower would "influence the nature of future military operations."[49] Changes in conceptions of speed and mobility already influenced concepts of future war. The atom bomb propelled the ascendancy of airborne operations over the more common method of entry operations-amphibious assault. While Allen argued that the atomic bomb would not "eliminate" amphibious operations it would make them less feasible because a crowded landing beach and surface vessels made an ideal target for an aggressor's atomic weapon. Like many US Army officers in the 1950s, Allen argued that the future of speed and mobility depended on airborne or air assault operations as "the very nature of airborne operations provides adequate dispersion."[50] A former lieutenant colonel in the Czechoslovakian Army, F. O. Miksche, argued that "the idea that the eventual invasion from the East can be stopped by means of atomic bombing or small professional and highly mechanized armies can be dismissed as unrealistic. It is always the thinking human being that remains the most perfect war machine."[51] US Army leaders in the 1920s and 1930s had debated the focus between "men and machines" and the debate continued in the atomic age.[52]

Though the US Army remained an organization based on ground forces and the human element of war, there was no doubt that modern weapons had changed warfare. Lieutenant Colonel Ecklund noted that, "Weapons of the future possess not merely a simple war potential but a potential for disintegrating society and annihilating the human race."[53] The technological changes "imposed a new characteristic on total war."[54] The destructive power of a single weapon provided opportunities but also threatened the very existence of ground forces. The large field armies of World War II and the US Army's even larger logistics structure presented an enticing target to any enemy that might wield the atomic bomb in the

future. Modern weapons also changed the roles of the US Army. Civil defense took on a new meaning both for civilians and soldiers. In the World Wars civil defense focused on information, morale, and stability to offset the demands of industrial and social mobilization. The possibility of cities destroyed by a single atomic weapon and the resulting social turmoil increased the scope of civil defense and the capabilities required of civilians and soldiers to prepare and respond to an attack on the homeland.

The college curriculum did not change from 1950 to 1953 because the lack of accurate data about atomic effects and higher-command directive left college leaders reluctant to make time consuming changes. Weapon technology was changing but it was unclear how that influenced the operational environment and the implications for regulating the battlefield through doctrine. Yet, even small changes in operational priorities led to questions of if the curriculum and doctrine should change. An internal study of instruction at CGSC conducted from 1948 to 1951 by Colonel H. F. Harding noted the different priorities of Army Field Forces (AFF) and the college. General Mark W. Clark gave a speech in June 1951 that declared the AFF was placing more emphasis on night fighting, but Harding observed that there was no change in night operations at CGSC. This led Harding to question how the college should respond. He stated that:

> This policy of General Clark and the AFF to devote more time to night fighting operations in training soldiers should, it would seem, be reflected in the CGSC course by more instruction in the staff planning for larger-scale night operations. Does CGSC await a directive from AFF to do this? Does it initiate on its own? Does it disregard the matter--especially considering that the curriculum is planned and arranged some months in advance of the school year?[55]

The proposed solution was "a staff study be launched to deal with this problem—the development of doctrine…The problem relates to whether the college is progressive or static. It is vital to the criterion of whether we are turning out officers and commanders to fight the battles of World War II or those of the period 1951-1975."[56] Harding's proposal to conduct a staff study reflected the culture of CGSC from 1946 to 1956. When faced with change or a problem, commandants launched internal studies to analyze the situation and make recommendations. This culture of internal assessment and reluctance to change increased as General Garrison H. Davidson assumed command of the college in 1954 and addressed the issue of doctrine development Harding identified in his study.

Notes

1. "Enclosure #1, Subject: Analysis of the Curricula of the Regular Course, Command and General Staff College to Determine Criteria for Preparation of a Program of Instruction that Accomplishes the Mission of the College," in R. H. Moore and L. H. Taylor, Jr., *Analysis of the Curricula of the Regular Course, Command and General Staff College* (Fort Leavenworth, KS: US Army Command and General Staff College, November 1951), 1, https://cgsc.contentdm.oclc.org/digital/collection/p4013coll4/id/357/rec/1. (Hereafter referred to as Moore Report.)

2. "Study of College Mission," 7 January 1952, Moore Report.

3. Moore Report, 4.

4. Moore Report, 4.

5. Moore Report, 4.

6. "Tab A—Brief Summaries of Action Taken Reference Paragraph 1 and 2 of basic D/F," Moore Report, 1.

7. Moore Report, 1.

8. Moore Report, 2.

9. Max S. Johnson, "Subject: Planning Guide for Modification of College Course," 17 September 1951, Moore Report, 2.

10. Johnson, "Subject: Planning Guide for Modification of College Course," 2.

11. Carter, *Forging the Shield,* 55-57.

12. Carter, *Forging the Shield,* 57.

13. Carter, *Forging the Shield,* 57.

14. The interim solution proposed by Beauchamp, and the ongoing Easterbrook study about curriculum updates, compared favorably to other US Army efforts to incorporate atomic weapons and develop doctrine.

15. Shurm, "Strategic Problems of the Armed Forces of the United States," 2.

16. David C. Rasmussen, *A Case Study of Politics and US Army Doctrine: 1954 Field Manual 100-5: Operations,* Land Warfare Paper 122 (Arlington, VA: Institute of Land Warfare, Association of the United States Army, January 2019), 2.

17. Donald T. Kellet, "A Modern Infantry Division," *Military Review* 31, no. 2 (May 1951), 9.

18. Kellet, "Modern Infantry Division," 17.

19. Moore Report, 4.

20. "Tab B - Number and Total Hours Regular Course 1952-53, According to Type of Instruction," 28 April 1952, Moore Report.

21. Herbert A. Jordan, "Logistical Aspects of Large-Scale Airborne Operations," *Military Review* 33, no. 1 (April 1953): 3.

22. Moore Report, 7.

23. S. W. Foote, "Subject: Retention of Subject 6032-1952-53," 31 October 1951, Moore Report.

24. Hanson W. Baldwin, "The Atom Bomb and the Future of War," *LIFE,* 20 August 1945, 18.

25. DOA, FM 100-5 (1949), 264-274. The same language appears in the 1954 version. See DOA, FM 100-5 (1954), 220-228.

26. Eklund, "The Nature of Total War," 14.

27. John G. Van Houten, "The 'Stew in Their Own Juice' Theory," *Military Review* 30, no. 3 (May 1950): 21.

28. Charles J. Denholm, "Training Support," *Military Review* 30, no. 6 (September 1950): 20.

29. Wesley W. Yale, "A Design for a Mobilization Training Program," *Military Review* 30, no. 3 (June 1950): 38. For another example of World War II mobilization used as a basis for preparing for the next conflict, with emphasis on the "press of time" see H. E. Townsend, "Building and Training a Combat Division," *Military Review* 30, no. 3 (May 1950): 27-33.

30. Mark S. Watson, "United States Foreign Policy and the Armed Forces," *Military Review* 30, no. 5 (August 1950): 22.

31. Eklund, "The Nature of Total War," 11.

32. Eklund, "The Nature of Total War," 13.

33. Eklund, "The Nature of Total War," 13. Eklund's model reflects the four instruments of national power recognized today: Diplomatic, Informational, Military, and Economic, though in the 1950s psychological and political were the terms used for the current terms informational and diplomatic, respectively.

34. Chester F. Allen, "Dispersed—Yet Organized," *Military Review* 30, no. 4 (July 1950): 30.

35. Richard W. Whitney, "Let's Assume," *Military Review* 30, no. 4 (July 1950): 47.

36. Allen, "Dispersed—Yet Organized," 30.

37. F. O. Miksche, "The Atlantic Pact and Germany," *Military Review* 29, no. 12 (March 1950): 24.

38. Van Houten argued that "among military and among non-military persons, the idea persists that utter defeat of the enemy carries with it the solution to the problems which instigated the war." See Van Houten, "The 'Stew in Their Own Juice' Theory," 26.

39. Van Houten, "The 'Stew in Their Own Juice' Theory," 22.

40. Frank W. Moorman, "Logistical Problems in Future Warfare," *Military Review* 30, no. 4 (July 1950): 4.

41. Moorman, "Logistical Problems in Future Warfare," 2.

42. Moorman, "Logistical Problems," 9.

43. "Subject: Educational System for Army Officers," 01 May 1953, Eddy Board Report.

44. Joseph O. Gerot, "Why Fight the Problem?," *Military Review* 33, no. 2 (May 1953), 19.

45. Commandant to Chief, Army Field Forces, 1 May 1953, Subject: Educational System for Army Officers, Eddy Board Report, 1.

46. O. Z. Tyler, Jr., "The Military Student," *Military Review* 30, no. 2 (April 1950): 25.

47. Committee Memorandum to Director of Instruction and Education, "Subject: Analysis of CGSC Mission," 1 November 1951, Moore Report, 2.

48. Moore Report, 11.

49. Allen, "Dispersed—Yet Organized," 24.

50. Allen, "Dispersed—Yet Organized," 29.

51. Miksche, "The Atlantic Pact and Germany," 24.

52. David E. Johnson, *Fast Tanks and Heavy Bombers: Innovation in the US Army, 1917-1945* (Ithaca, NY: Cornell University Press, 1998), 67-71.

53. Eklund, "The Nature of Total War," 15.

54. Eklund, "Total War," 15.

55. "B. Instructional Methods, College Standards, and Outside Relations," in H. F. Harding, "Observation on Instruction at the Command and General Staff College, 1948-1951," (Instructor Training Section, Command and General Staff College, Fort Leavenworth, KS, 20 July 1951), N13423.97, 10-11, https://cgsc.contentdm.oclc.org/digital/collection/p4013coll4/id/268/rec/62.

56. "B. Instructional Methods, College Standards, and Outside Relations," 10-11.

Chapter 4
"Apologies to Ike:"
Between Professionalism and Parochialism, 1954-1956

> Under these circumstances, I wonder whether we cannot justly be accused of burying our heads in the sand and continuing to be too parochial (apologies to "Ike") in our concept of the proper scope and nature of the education of our tactical commanders.
>
> —General Garrison H. Davidson, "Guidance for Planning the /7 Curriculum"

As leaders at CGSC analyzed methods of instruction and considered how to prepare officers to serve in the next war, the college's mission expanded to doctrine development as Davidson assumed command of the college. On 20 October 1954, Brigadier General Charles E. Beauchamp, the Assistant Commandant, sent a memorandum to Colonel Seth L. Weld that proposed an answer to the question of doctrine development raised by Colonel H. F. Harding's 1951 assessment of the college. Beauchamp noted that the college did not have suitable doctrine that encompassed all aspects of the college's mission and that "guidance from higher headquarters has been lacking" or was still in development as was the case with the ATFA concept.[1] While Beauchamp claimed there was a lack of guidance, the issue was CGSC's disagreement with Ridgway and the Army Field Forces's (AFF) guidance to field a dual-capable force to fight on the atomic and non-atomic battlefield.[2] The AAF held a conference at Fort Monroe in February 1954 and tasked service schools to study how the US Army should organize for the atomic battlefield. CGSC leaders concluded that the existing, combined arms organizations could function on the atomic battlefield.[3]

The internal staff study that developed from Beauchamp's directive, known as the Weld Memorandum, noted that "[a]s a result of a lack of evidence of any really new doctrine or trends of desirable organizational changes, considerable confusion probably exists in the minds of personnel throughout out the army today. It appears desirable and essential that this confusion be eliminated to the most practicable extent without further delay."[4] The lack of new doctrine affected the college's mission to instruct officers. General Garrison Davidson noted in his end of tour report, "[s]tudying the problem [of doctrine development] convinced me that current doctrine is an intrinsic part of our instructional mission. What we teach IS current doctrine."[5] To meet the demands of instruction and doctrine devel-

opment, Davidson commissioned three notable studies between 1954 and 1956, that focused on providing clarity in doctrine and instruction while aligning the college's organization to support instruction. The Weld Board, the Easterbrook Board, and the Skinner Board sought answers to three distinct questions that influenced the intellectual and physical transformation of the college and exposed the lack of consensus within the college about limited war and the feasibility of a dual capable force.

The Weld Board, conducted concurrently with the other two boards, focused on how to develop a system of long-range doctrine development to support instruction by integrating the doctrinal and instructional missions of the college. The Combat Developments Section explored future concepts, but those concepts were not incorporated into the curriculum. Department of the Army directives did not provide details about how to incorporate atomics, only that atomic and non-atomic scenarios should be taught. The Weld Board concluded that the college provided the best chance of developing doctrine because of the number of instructors, the college's mission and corresponding "nature of work" in tactics, the diversity of experience of students and faculty, and the capacity to study doctrinal problems in the classroom exercises.[6] The Weld Board concluded that the Combat Development Section should develop scenarios for use in the classroom. Developing doctrine was only part of the goal; Beauchamp and other leaders wanted more student participation in learning.

Three factors drove the analysis of using students to develop or expand on doctrinal scenarios. First, wider student participation in learning remained a concern as the college leaders reviewed instructional methods. The second factor was the lack of established doctrine for the technological changes facing the US Army. The study noted that, "it is at least questionable as to whether the students receive the complete picture or are able to appreciate the implications, the problems, and detailed conditions likely to apply in a war of atomic plenty."[7] Leaders concluded that without established doctrine, and the continued pace of technological advancement, it was prudent to expose students to "current and probable future technical developments" as CGSC would be "the last formal instruction obtained" before serving in positions or units fighting on a technologically advanced battlefield.[8] That conclusion influenced the third factor driving the use of doctrine development at CGSC. Curriculum developers needed an interim solution in the absence of clear guidance for a curriculum rewrite.

The staff study identified a problem that manifested fully in the pentomic division concept in the late 1950s. The study recommended basing the curriculum scenario in the future, but no more than five years in the

future, as opposed to ten years, because "it would be extremely difficult to attempt [projecting out ten years] in the view of the complete absence or shortage of the new weapons and equipment which will have influenced the development of the new doctrine and organizations."[9] In a period of uncertain strategic and technological developments leaders throughout the US Army faced a difficult task of dealing with the present while developing concepts and forces for the future. Even a doctrinal concept like an airborne assault became unrealistic if officers ignored the balance of technological process and doctrinal concepts. While airborne operations during World War II had been influential, and there had been strides in airborne doctrine, one US Army officer noted that, "considerable development will be required before large-scale, deep penetration types of airborne operations, requiring logistical support...can be considered feasible from a logistical viewpoint."[10] Balancing technology, doctrine, and priorities consumed much of the CGSC leaders time and focus.

While the Weld Board noted the increased importance of doctrine development as part of the college's mission, the Skinner Board considered how the college should be organized to meet the dual mission of instruction and doctrine development. Based on the Skinner Board conclusions, General Davidson directed the establishment of the Director of Research and Analysis to supervise the efforts of three departments: The Current Analysis Section, the Combat Developments Department, and the Advanced Operations Research Department. The Current Analysis Section acted as a "buffer to absorb the shock of projects originating outside the Ccollege," like the ATFA study, so the staff and faculty could focus on instruction and long-range planning.[11] The Combat Developments Department focused on doctrine development to meet requirements in the next five years. The Advanced Operations Research Department focused on doctrine requirements ten years in the future.[12] The organization and framework for doctrine development balanced the need to explore new concepts and material without disrupting curriculum development and student learning. Davidson was not the only leader concerned about the influence of change on the curriculum. The Director of Instruction, Colonel W. W. Culp wrote to the assistant commandant that "there is obviously a limit to the degree of change that can be made in the curriculum without endangering our standards and losing continuity and consistency."[13]

Four colonels serving on the faculty protested the reorganization proposed by the Skinner Board board's report because it removed officers from the Director of Instruction's use in the Operations Section. Davidson's decision to create the Director of Research and Development em-

phasized the need for faculty and staff dedicated to doctrine development, but the Operations Section created and refined curriculum and training literature for the college. The colonels noted that in the 1954-1955 academic year officers in the Operations Section completed more than 49 special projects with time commitments that ranged from two to twenty hours, in addition to the regular mission of the section.[14] While the colonels noted the importance of defining the different planning horizons for doctrine development, they argued that officers should not be assigned to the Director of Research and Analysis directly, only as an alignment of effort.[15] Despite the protest, the reorganization occurred and Davidson noted in his after action report at the end of his command tour that "When the first three-year work cycle is completed in June 1956...the College will be well on its way to regaining its rightful place of leadership in the doctrinal development field."[16]

The other field Davidson focused on was the college's original mission: instruction. As staff and faculty debated the influence of technology on doctrine Davidson ordered Colonel Ernest F. Easterbrook "To establish a concept for the 1955-56 curriculum which will reflect the impact of atomic weapons on the conduct of tactical operations in an authoritative, realistic and forward looking manner."[17] Davidson identified the need for updated doctrine based on the development of atomic weapons and he noted that:

> Emphasis in all documents having to do with combat developments is on what had become to be a standard cliche: Mobility, Dispersion, Flexibility...I am anxious to have several studies made to determine from historical fact the probable true requirements for each of these characteristics in the field army of the near future.[18]

Despite the development of atomic weapons, Davidson noted that the curriculum had been "static" though he acknowledged the limited atomic education added in 1951.[19] The Easterbrook Board analyzed the problem of how to add atomic concepts to the curriculum. As the board debated the role of atomics, consensus proved elusive.

The Easterbrook Board did not reach consensus in its assessment of how to incorporate atomics into the 1955-1956 curriculum because board members could not agree on "the estimated employment of atomic weapons in future wars."[20] Curriculum and doctrine development required assumptions about the use of atomics—the feasibility of limited war—that could not be validated without the outbreak of war. The Easterbrook

Board presented two proposals, Plan A and Plan B, representing the views of the two groups on the board. Group A argued that all-out atomic warfare should be the primary scenario as it represented the most dangerous and most likely situation. Officers in Group A noted that, "[i]nstruction on combat under non-atomic conditions will follow atomic instruction and will be treated as special operations."[21] Group B suggested a more balanced approach. They argued that:

> The objective of instruction should be to prepare the student to perform command and staff duties in combat under the two general conditions predicted [atomic and non-atomic]. The emphasis and scope of this instruction should recognize that there exists no way of establishing a relative probability of occurrence between these two conditions.[22]

Davidson agreed with Group B's approach and noted in his after action report that "[s]ince the College is faced with the dual task of teaching both atomic and nonatomic warfare, about a fifty-fifty division between atomic and nonatomic seems appropriate."[23] The uncertainty of future war and the requirement to develop some form of instruction to address the development of atomic weapons led to an indecisive curriculum.

More important than the curriculum decision, the Easterbrook Report left the feasibility of atomic warfare unanswered and ideas about limited war remained muddled. Group B of the Easterbrook Board claimed that "the nature of the curriculum could be determined relatively easily if there were only one general condition for combat operation" but a few sentences later argued that "it is significant to realize that the principles of warfare are basically the same for each condition...but the techniques and means are materially different."[24] The staff techniques and procedures differed with the incorporation of atomic weapons because of weapon effects and the need for units to disperse more under the threat of atomic attack Despite the curriculum's tactical focus, the disagreement between Group A and B demonstrated that the feasibility of each groups' scenario centered on their assumptions about escalation. Group A concluded that atomic weapons would be used, even if the United States did not fight an atomic power.[25] Group B showed the uncertainty about escalation, claiming "there is a possibility that the use of atomic weapons will be denied to both sides through political maneuver. If one side uses the weapon, the other side will also use it."[26] Davidson selected Group B's plan based on the uncertainty surrounding the use of atomic weapons in a future war.

From 1954 to 1956, the staff and faculty reached a point of information overload as the numerous studies and special projects commissioned by Davidson and other leaders assessed the college's curriculum and method of instruction. Colonel James H. Lynch noted that, "more valid comments could be reached if these individual studies were now correlated," but then posed the question, "a committee to study committee reports?"[27] Yet, the studies continued and in August 1955, Culp suggested that departments, "conduct a "Bates Report" type analysis to assess curriculum coverage."[28] The continuous staff studies revealed a professional concern about the performance of the college and uncertainty about how to fulfill the mission of educating officers.

One concern that occupied Davidson as he issued curriculum guidance for the 1956-1957 academic year was the perception of offense and defense. Davidson noted that tension between the offense and defense in 1955 and argued that:

> We must foster an aggressive, offensive frame of mind in our standards. However, in the event of a possible war in Europe, or in event of a peripheral war developing like the Korea incident, our forces would be called on to conduct a successful defense before the offense ever could be attempted. Additionally, there is considerable feeling that defensive type of warfare may play a critical role on the atomic battlefield. In view of this, I wonder whether we are sound in emphasizing the offensive type of action (not spirit!) to the degree we do?[29]

Balancing the strategic and tactical defense with the need for officers to show tactical initiative proved challenging. The United States' posture in Europe during the Cold War necessitated a strategic and tactical defense based on the imperatives of avoiding war and protecting allied nations. Yet, the US Army's identity and legitimacy had grown during World War II into the decisive ground force that achieved success through combined arms operations. The language of warfare and the meaning of offense and defense at the tactical and strategic levels influenced officers and their view of the US Army's role in national security. The development of atomic weapons complicated the US Army's role and doctrine development as atomic weapons changed the character of warfare and ideas about how ground forces should be organized.

The US Army conducted the ATFA study to determine how ground forces should be organized on the atomic battlefield. Davidson resisted the idea of incorporating atomic concepts from the Atomic Field Army study,

"except in a minor way," because the concept was not final, and it was unknown if the US Army would adopt any principles from the ATFA.[30] Culp wrote the assistant commandant in October 1955 that, "CONARC [Continental Army Command] has furnished no guidance on what it intends to do about coordinating the integration of ATFA throughout the Army School System."[31] Faculty analyzing interim solutions to doctrine development reached the same conclusion in the fall of 1954. The college needed a new doctrine to keep pace with technological change, but waiting for a complete analysis prevented the inclusion of new concepts in the 1955-1956 curriculum.

Davidson identified the challenge of planning the college curriculum year-to-year. The CGSC staff analyzed the doctrinal changes considered by the Department of the Army in the ATFA and PENTANA studies and decided to keep looking forward to changes in warfare, but not at the cost of creating disorder within the college. Adopting an operating concept like ATFA that might not become doctrine wasted staff and faculty planning time and confused students. The burden of designing a curriculum for the last ten to fifteen years of an officer's career proved daunting as the Department of the Army held three possible organizational changes—AFTA, PENTANA, and ROCID—over the service schools.

While Davidson wanted to limit changes related to ATFA, he argued for more humanities focus in the CGSC curriculum. He noted that, "from the viewpoint of the general composition of our curriculum our attention to the education of our tactical leaders with respect to the other services, human relations, and the military-political field appears too limited." While the Department of the Army focused on the changing character of the battlefield and making the US Army relevant, Davidson thought the uncertainty of the future required a broader education, not a change in doctrine. He believed that in future war:

> Top level military planning is a combined military-economic-social-political proposition. It would seem appropriate, therefore, that all military men start on a reasonably broad type of education, fairly early in their careers…Under these circumstances, I wonder whether we cannot justly be accused of burying our heads in the sand and continuing to be too parochial (apologies to "Ike") in our concept of the proper scope and nature of the education of our tactical commanders.[32]

Davidson's observations of the demands placed on tactical commanders showed great appreciation for the relationship between tactics and strategy

and that warfare's feasibility is connected to the political objective of war. With only seven months left in his tour as commandant of CGSC, General Davidson did not have time to make those improvements. Davidson's desire for more humanities-based education came to fruition not at CGSC, but after his appointment as superintendent of West Point where he instituted what are now known as the Davidson reforms.[33]

Davidson argued for a more holistic approach to education, including aspects of economics, politics, and geography to produce officers prepared to lead in a changing world.[34] He also appreciated the tactical challenges facing commanders in the atomic age and did not rule out the use of atomic weapons. He claimed that, "[r]econnaissance is going to be even more important on the atomic battlefield than it has been in the combat of past wars…it should frequently permit our forces to beat Aggressor to the punch in bringing the atomic weapon to bear before he can use his own or before he comes into contact with our main forces."[35] Davidson believed reconnaissance and intelligence reduced uncertainty and increased the combat effectiveness of atomic forces. No doubt intelligence remained important, but it was not a solution. Rather, the focus on intelligence revealed a certain level of discomfort with uncertainty. A commander in any tactical situation wants greater reconnaissance and intelligence capabilities. Certainly, there was a timing aspect with atomic weapons–the need to strike first—but the same could be said of the insurgent and counterinsurgent in their quest to target each other's capabilities or influence in the population. Historian Gregory Daddis noted that too much intelligence and reporting became an organizational burden. When the data collected outpaced an organization's ability to process the data, processing data still demanding the organizational effort.[36] In the case of the US Army in the atomic age, without accurate data about atomic weapon effects and the lack of doctrine for atomic operations, more information only added to information overload.[37]

The CGSC reviews of the curriculum revealed that training and planning for war were complex enough without the incorporation of atomic weapons. Leadership at CGSC needed time to adapt the curriculum to the lessons of the Second World War in addition to the atomic battlefield. Davidson directed the editors of *Military Review* to publish articles on tactical atomic warfare and emphasized the publication's role in "disseminating modern military thought and current US Army doctrine concerning command and staff procedures of the division and higher echelons."[38] Meanwhile, Davidson knew he had to balance incorporating lessons learned from the last conflict into a curriculum while also adapting the

curriculum to the atomic age. He noted that, "Since the influence of the mass destruction weapons on the battlefield have not been defined clearly enough to establish new doctrine, it must be made clear to the student that the doctrine presented to him represents the best, tentative thinking of the college on the subject."[39] Not only did the curriculum reflect the "best, tentative thinking" about atomic warfare but it also represented Davidson's decision on how to best balance adaptation and evolution of doctrine.

The 1954 CGSC curriculum was based on doctrine, the problem was the doctrine had not kept pace with technological changes or visions of future war. The Weld Board noted that "new doctrine and organization have not been developed in any appreciable detail or with completely cohesive or coordinated results."[40] While the faculty at CGSC found the uncertainty an obstacle to overcome, one can only imagine what an officer preparing to serve in a division or corps in Europe thought about the ability of senior leaders to prepare the US Army for the atomic battlefield. Yet, there was guidance from CONARC and the Department of the Army that directed the curriculum reflect atomic and non-atomic war. There was no established atomic doctrine to use as a base of instruction for atomic warfare in 1954.[41]

FM 100-31 and the Armed Forces Special Weapons Project (AFSWP) taught at CGSC focused on technical aspects of atomic weapons and CGSC graduate Major DeBow Freed argued in 1960 that the course "emphasized the technical details of nuclear weapons and target analysis rather than the broad basic knowledge of nuclear weapons and their effects."[42] He made no mention of how instructors expected students to connect those technical aspects to an atomic operational concept. The best solution according to the staff study was to insure "that the students receive no misconceptions, are given available information and guidance in a proper perspective, and are provided at least one opportunity in the most realistic map exercise obtainable, to face all details of the problem and arrive at solutions."[43] Despite the objective of providing the best possible instruction, there was considerable disagreement and misconceptions in the pages of *Military Review* and among the officers serving on the various boards studying the direction of the college. Faculty grew concerned that the college's new role in developing doctrine and proactive exercises might lead to its subordination to higher headquarters' initiatives. Faculty wanted to develop doctrine and concepts in creative ways without losing their autonomy if senior commanders liked an idea and then issued directives about how to develop concepts. The influence of institutional relevance and legitimacy affected the college and the US Army.

Despite Davidson's recognition of the US Army's parochial focus, the competition between services based on roles in future war persisted. One of the items suggested for the Commandant's Opening Address for the 1956-1957 academic year argued that Davidson should:

> Enunciate the [US] Army position as established in Chapter 1, FM 100-5. This will serve two particular purposes. One purpose is to offset later Navy and Air Force presentations which emphasize their roles as instruments of national policy. The other purpose is to set the class tone and attitude in a dynamic purposeful patter as to the army's role in world affairs.[44]

The US Army position in the 1954 FM 100-5 *Operations* was a clear statement of the organization's relevancy and legitimacy as an autonomous service. The manual made three claims in defense of the US Army's relevancy. First, "[US] Army forces, as land forces, are the decisive component of the military structure" because they directly engaged the enemy and controlled terrain. Second, that "[US] Army combat forces do not support the operations of any other component." Not only did FM 100-5 declare the US Army's relevancy but it questioned the autonomy of the other services. Finally, the manual stated that "the efforts of all components [naval and air forces] are directed toward insuring the success of the land force operation."[45] Compared to the 1949 version of FM 100-5 that noted the US Army required the support of the other services, the 1954 version asserted the organization's importance. General Matthew Ridgway's fight for the US Army's role in the atomic age formed the basis of the 1954 version of FM 100-5.

The US Army had an identity crisis despite its contribution to victory in the Second World War and holding the line in Korea. Atomic weapons made the role of the US Army in the 1950s uncertain. Between reductions-in-force, and the prioritization of the US Air Force as the strategic deterrent against the Soviet Union, there seemed to be little utility for the US Army. The need for the US Army to have a role in the atomic age drove doctrine and force design more than any other consideration, even the president's national security policy.[46]

Likewise, the college faced an identity crisis as its leaders sought a role for the organizations in a rapidly changing world. Davidson wrote a memorandum to the Director of Research and Analysis at the CGSC that argued:

> Unless the Command and General Staff College forcibly demonstrates its rightful position as the leader in the field of develop-

> ment of tactics and logistical doctrine, it may wake up some day and find "the powers that be" looking even more strongly to other military institutions, or even civilian agencies, for this original thinking.[47]

The focus at CGSC changed from a looking forward to a "forward-looking" to keep pace—in image, if not content—with changes at the Department of the Army level.

In the fall of 1956, the Army Chief of Staff, General Maxwell Taylor, directed the reorganization of the division structure from the triangular division used in World War II to the pentomic division. The shift in organization, and doctrine to support the reorganization, exposed the lack of consensus about the feasibility of a dual capable army as strategic settings in the curriculum diverged from Taylor's belief in the feasibility of limited war. Taylor's reorganization by directive without analysis reflected a warning Davidson had sent to CONARC commander, General Willard G. Wyman in July 1956:

> Under current procedures, new ideas with regard to tactical and logistical doctrine very often come down from the top with such a degree of detailed guidance and with such close time limits, they tend to stifle the thought of subordinate agencies, require superficial thinking, to meet deadlines, and in general dissipate the total effort.[48]

Though Davidson noted he was not directing his comment toward any specific person or organization, his view of the US Army's doctrine development process proved prophetic. General Lionel C. McGarr assumed command of CGSC from Davidson and focused the curriculum on meeting the demands of the pentomic division. By the end of McGarr's tour the US Army had largely rejected the pentomic concept and its search for a workable atomic doctrine dissipated.[49]

Notes

1. Charles E. Beauchamp, "Subject: A Concept of Long-Range Development and Doctrine at CGSC," 20 October 1954, in Seth L. Weld, "New Unit of Instruction to Integrate Long Range Combat Developments into the College Curriculum," (US Army Command and General Staff College, Fort Leavenworth, KS, November 1954), N13423.99, 1, https://cgsc.contentdm.oclc.org/digital/collection/p124201coll2/id/183/rec/1. (Hereafter referred to as Weld Memo.)

2. Midgley, *Deadly Illusions,* 37.

3. Midgley, *Deadly Illusions,* 36-41.

4. Weld Memo, 4.

5. Davidson, AAR, II-1.

6. Weld Memo, 4-6.

7. Weldo Memo, 2.

8. Weldo Memo, 2.

9. Weldo Memo, 9.

10. Jordan, "Logistical Aspects of Large-Scale Airborne Operations," 13.

11. Davidson, AAR, II-2.

12. Davidson, AAR, II-1.

13. W. W. Culp, "Subject: Guidance for Planning the /7 Curriculum," 1 November 1955, Curriculum Plans 1956-57 Regular Course, 2.

14. "Special Projects-Operations Section, 1954-1955," attached to Skinner Committee, "Skinner Report: Organization of the Command and General Staff College," June 1955, N13423.26B, 1-2, https://cgsc.contentdm.oclc.org/digital/collection/p4013coll4/id/273/rec/5. (Hereafter referred to as Skinner Report.)

15. "Reorganization of CGSC," 28 June 1955, attached to Skinner Report, 3.

16. Davidson, AAR, II-4.

17. Easterbrook Committee, *Committee Report: Nature of the Curriculum, Command and General Staff College in Light of Impact of Atomic Weapons, 1955-1956* (Fort Leavenworth, KS: US Army Command and General Staff College, 1954), N13423.50-A, 1, https://cgsc.contentdm.oclc.org/digital/collection/p4013coll11/id/379/rec/37. (Hereafter referred to as Easterbrook Report.)

18. Garrison H. Davidson to Executive for Research and Evaluation, "Subject: Additional Subjects," 24 September 1954, Easterbrook Report, 1.

19. Davidson, AAR, I-2.

20. Easterbrook Report, 2.

21. Easterbrook Report, 4.

22. Easterbrook Report, 3.

23. Davidson, AAR, I-2.

24. "Appendix 2 to Annex D: Objective of Instruction—View B," Easterbrook Report, 1.

25. Easterbrook Report, 4.

26. Easterbrook Report, 4.

27. James H. Lynch, "Subject: A Concept of Long-Range Development and Doctrine at CGSC," 10 November 1954, Weld Memo, 40.

28. W. W. Culp, "Curriculum Plans 1956-57 Regular Course," 16 August 1955.

29. Davidson," Subject: Guidance for Planning the /7 Curriculum," 9.

30. Garrison H. Davidson, "CGSC /7 Guest Speaker Planning," Curriculum Plan for Regular Course 1956-1957, 01 November 1955.

31. W. W. Culp, "Subject: Army Organization for /7 and /8 Instruction," 5 October 1955, Curriculum Plans 1956-57 Regular Course, 2.

32. Davidson, "Subject: Guidance for Planning the /7 Curriculum," 9.

33. See Theodore J. Crackel, *West Point: A Bicentennial History* (Lawrence, KS: University Press of Kansas, 2002), 201-228.

34. Davidson, "Subject: Guidance for Planning the /7 Curriculum."

35. Davidson, "/7 Curriculum," 9.

36. Gregory A. Daddis, *No Sure Victory: Measuring US Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 10.

37. Wilson, *Maneuver and Firepower,* 270.

38. Davidson, AAR, V-3-V-4.

39. Garrison H. Davidson, "Subject: Guidance for Planning the /6 Curriculum," 12 January 1955, Curriculum Plans 1955-1956 Regular and Associate Course, CGSC Curriculum, CARL, 1.

40. Weld Memo, 4.

41. DOA, FM 100-5 (1954) included atomic considerations but no specific organization or employment of forces to conduct offensive or defensive operations on the atomic battlefield.

42. DeBow Freed, "Nuclear Weapons Employment Training," *Military Review* 40, no. 1 (April 1960): 63.

43. Weld Memo, 3.

44. "Items for Commandant's Opening Address," Curriculum Plans 1956-57 Regular Course.

45. DOA, FM 100-5 (1954), 4.

46. Bacevich, *The Pentomic Era,* 16-22.

47. Garrison H. Davidson to Director, Research and Analysis, "Subject: Mission of the Research and Analysis Division," 29 September 1955, Curriculum Plans 1956-57 Regular Course.

48. Davidson, Letter to Wyman, 2.

49. Linn, *Elvis's Army,* 96-98.

Chapter 5
"Keeping Pace with the Future:" Chasing Concepts, Losing Consensus, 1957-1960

> The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish by that test the kind of war on which they are embarking, neither mistaking it for, nor trying to turn it into something that is alien to its nature.
>
> —Carl von Clausewitz, *On War*

> The relevant point, however, is that at the tactical level the theory and practice of machine warfare proved divergent. By contrast, the effects of machine warfare on operations and on national strategy created less obvious tensions between theory and practice. This may have been because there was no obvious theory of machine warfare at the operational level. The ideas were tactical, and confusion arose precisely because tactical methods were used to do duty for operational thought.
>
> —Hew Strachan, "From Cabinet War to Total War"

After the pentomic division reorganization, leaders at CGSC developed doctrine and curriculum for the atomic battlefield based on directives and assumptions about the operational environment. Despite the reorganization of airborne, armor, and infantry divisions, uncertainty about the current and future operational environment persisted. The US Army's organization changed to a flexible battlegroup structure designed to fight and survive on the atomic battlefield. Yet, leaders like Army Chief of Staff, General Maxwell Taylor emphasized the importance of defending the periphery—under atomic and non-atomic conditions. This dual capable force represented the unsettled debates within the US Army. Visions of how the US Army would fight on the atomic battlefield clashed with visions of General War and the threat of massive retaliation. Doctrine driven by directive, rather than consensus, failed because it rested on unvalidated assumptions. The pentomic army concept relied on the assumption that atomic warfare was feasible. Without that assumption officers responsible for curriculum and doctrine development would be educating officers for the battlefields of the Second World War or Korea. The assumption that atomic warfare was feasible became fact as the first guiding principle General Lionel C. McGarr issued for the 1957-1958 academic year cur-

riculum was, "[c]onditions of atomic warfare will be the rule with some coverage of nonatomic warfare to portray the exception."[1] By the end of McGarr's time as commandant, he would express skepticism about atomic warfare's feasibility, making any enduring change to doctrine and instruction at CGSC difficult.

Three months after his arrival at Fort Leavenworth, McGarr's planning guidance for the 1957-1958 curriculum made a clear statement of the college's direction:

> The Atomic Era is upon us. A new division has recently been approved to fight nuclear as well as conventional war. Accordingly, from the beginning we must teach the students to think, act, and react primarily in terms of an atomic environment on the battlefield. The period of half-way measures, the mere superimposing of atomic support on World War II tactics, and the interim period of reorientation on new instruction are past.[2]

McGarr signaled a clear departure from Davidson's balanced coverage of atomic and non-atomic instruction. The atomic battlefield changed the threats soldiers considered in plans and operations. CONARC directed McGarr to change the curriculum's emphasis to "stress concepts for atomic warfare" and McGarr initiated a complete curriculum rewrite.[3]

CGSC leaders believed that atomic weapons changed warfare and that the Second World War did not provide the best example to educate military students on tactics. McGarr directed the assistant commandant that the curriculum, "should eliminate overemphasis on the western theater of war and the carry-over of ETO [European Theater of Operations] WWII environment as a teaching vehicle."[4] Yet, Europe remained a key concern for the US Army and in 1956 almost half the US Army was stationed in Europe.[5] Historian Donald Carter argued that the pentomic army concept was "specifically designed to counter the Soviet Army" in Europe.[6] McGarr directed that, "The doctrine on which instruction is based must be Bold, Practical, Realistic, Forward-Looking, with a positive approach to Atomics and must reflect a proper appreciation of the varied roles of the US Army and its operational environments. Where doctrine is lacking it must be developed without delay."[7] What a "positive approach to atomics" meant was not explicitly stated yet, the guidance from the commandant focused on developing feasible atomic warfare scenarios. The choice of "practical" and "realistic" support this analysis along with McGarr's lengthy, if not awkward, attempts to define the various levels of atomic war and in what narrow scenarios ground troops still provided utility.

The theme of "forward-looking" and the desire to make the college look like a vibrant center of thought appeared throughout McGarr's memorandums and notes. In February 1957, his welcome brief to a CONARC inspection team ended with the confident statement "[i]t has often been said that, 'Planned change is progress, unplanned change is chaos.' Gentlemen, you will find no chaos here!"[8] He focused on details, correcting the writing style of subordinates, asking insightful questions about the curriculum, and even asking the dimensions of tables for a classroom before the college purchased them.[9] Some of his attention to detail appeared martinet, or simply the requirement of a commander operating in a time of extreme budget restrictions. Yet, McGarr also saw the college's role as driving the development of US Army doctrine through research, analysis, and communicating the changes in doctrine and curriculum using the college's publication, *Military Review.*

McGarr provided guidance for a series of *Military Review* articles awaiting publication, directing officers to "insure that [the articles] are forward-looking and present the College in the best possible light consistent with factual writing."[10] Between 1957 and 1959, McGarr and other college leaders published sixteen articles in *Military Review* that explained the curriculum and organizational changes at CGSC. In the series first article, McGarr highlighted the college's focus on the future, and revealed the unstable doctrinal foundation it rested on when he stated "CGSC must, by realistic assumption and instruction, insure that our doctrine and training, *even without complete field test and evaluation,* are sufficient and ready for *any* future war (emphasis in the original)."[11] McGarr's focus on the college's credibility served two purposes. First, it gave leaders at CGSC the opportunity to shape the debate about future war. In the tense debates over the future of the US Army—and ground forces in general—during the 1950s, it was important to appear forward-looking lest the college and its leaders be dismissed as unimaginative or stuck in the past. The second reason reflected the Department of the Army's struggle within the Department of the Defense. College leaders wanted autonomy and to show that it was leading instruction in the US Army, not another headquarters to be tasked with directives or projects. Doctrine development for instruction challenged faculty as they rewrote the curriculum without sufficient tests or data of the pentomic concept.

Forward looking doctrine and curriculum had to provide a workable concept for how US Army forces would fight. In Annex H to Faculty Memorandum Number One, McGarr stated that, "Doctrine must be based upon the probable and realistic roles and operational environments of the

[US] Army in the field. It must meet requirements for general war, local war, and situations short of war."[12] This statement reflected the friction US Army leaders confronted throughout the 1950s–what were the "probable and realistic roles and operational environments"? Less than a year prior, McGarr told a CONARC inspection team one of the problems the college faced was "[a] visualization of Army Operating Environments."[13] A related problem McGarr faced was the lack of qualified instructors to teach atomic subjects.[14] For the probable operational environment CGSC leaders had to consider what the United States government, specifically Congress, would authorize, what conflicts the United States' allies might pull the United States into, and what the Soviets might start through their aggression. Those three actors, combined with the operational environment of the Cold War, actual and perceived, remained uncertain as the college developed doctrine and instruction to support the pentomic division.

McGarr acknowledged that "[US] Army doctrine is increasingly tied to joint doctrine." Hhe also noted the parochial nature of doctrine development when he directed that, "[t]he College must take the lead in developing joint doctrine which is effective in meeting the requirements of the [US] Army as a member of the armed forces team."[15] McGarr's directive aligned with the 1954 version of FM 100-5 *Operations* that stated "[US] Army combat forces do not support the operations of any other component."[16] The focus was on army requirements first, then the joint force, with little reference to the political realities of the 1950s. This statement does not support the idea that doctrine must meet the needs of "probable and realistic roles and operations environments."[17] Rather, the language prioritized the US Army's requirements in the joint force.

The parochial focus provided more certainty than plans based on the operational environment. Guidance for the strategic settings in the 1957 curriculum listed "four major variables of an operational environment": the scale and use of atomic weapons, the geographic location, friendly force structure, andthe nature of the enemy.[18] Of the four variables, only the geographic location was relatively known. The scale and use of atomic weapons in a future war was undecided within the United States national security community. The debate about friendly force structure in the early 1950s inhibited curriculum changes before the pentomic reorganization. Meanwhile the threat of the Soviet Union posed the most likely answer to the nature of the enemy, but Soviet intentions remained uncertain despite predictions. Though McGarr identified the variables of the operational environment in the curriculum's strategic settings guidance, the pentomic division and the 1957-1958 curriculum fixed the scale and use of atomic

weapons and the nature of the enemy to make limited war scenarios feasible.[19]

Guidance from CONARC in April 1956 noted that two factors "serv[ed] to restrict the use of atomics."[20] The first was logistics—how many weapons the United States had on hand to use. The second factor was political—"the necessity to avoid a general war."[21] The guidance from CONARC then noted that, " The predominant factor in a consideration of the use and scale of atomics in local war will be a determination of their essentiality in achieving the United States objectives in that war."[22] The use of the word "essentiality" implied that it was not a question of if atomics would be counterproductive to achieving objectives, but rather if war required the use of atomics. CONARC did not question the suitability of using atomic weapons to achieve the United States objectives in war, but it recognized the necessity to avoid general war. The development of a workable tactical doctrine for an atomic army rested on the ability to control escalation; that is, doctrine required a condition no military or political leaders could determine before the outbreak of war. Tactical doctrine focused on the practical, winning on the battlefield, because that was the role of US Army forces directed in FM 100-5 *Operations.*

Doctrine and instruction focused on battlefield victory raised questions among college leaders about the feasibility of the US Army's atomic concept. Leaders like McGarr calculated the likelihood of strategic settings and if doctrine supported US Army operations in those regions because they wanted to develop useful doctrine and instruction for students. McGarr noted that adjustments to the strategic settings in the curriculum "result[ed] from the annual College appraisal of the relative likelihood of occurrence of the various forms of war, the need to maintain the [US] Army's qualification to fight all forms of war, and the maintenance of a considered balance between active and non-active atomic instruction."[23] In November 1957 McGarr's guidance to faculty writing curriculum for the 1958-1959 academic year noted that:

> Local War in Europe should be kept to a minimum amount for reasons of realism–the likelihood that local war there would immediately erupt into general war. On the other hand, a small amount should be portrayed since, if the [US] Army is not prepared to fight a local war in this area, any war here would automatically have to be an unlimited one. Further, the situation within the Soviet Union and the satellites is sufficiently uncertain to make drastic changes in this area possible overnight. [24]

McGarr believed that strategic settings could not ignore the political realities of where certain operations had utility and he noted the uncertainty involved. He needed to plan beyond deterrence in case it failed, yet by January 1958, McGarr issued revised guidance to the faculty that contradicted his initial guidance and the purpose of the pentomic reorganization.

McGarr made it clear that the college did not "indicate a political intention" by the selection of its strategic settings they used in the curriculum. Rather, the strategic settings were "designed to develop proficiency in the different types of operations…selection of a specific locale for a strategic setting [signified]" utility.[25] More importantly, for an era when atomic doctrine relied more on theory and analysis than experience, the strategic settings "described how the opposing forces become engaged in a given area and *fixed the forms of war and operational environment* (emphasis added)."[26] The strategic settings and locales did make a statement about how leaders at CGSC perceived the feasibility of its doctrine and instruction in realistic scenarios. CONARC's guidance in January 1957, quoted FM 100-1 *Field Service Regulations Doctrinal Guidance* to emphasize that doctrine, and therefore instruction should be "directed toward preparing the [US] Army to successfully engage in warfare under [atomic or non-atomic] condition[s]." In terms of general war or fighting an enemy in a local war that would use atomic weapons against the US Army, Europe was the only locale that possible in the 1950s. Historian Donald Carter argued that the US Army designed the pentomic division "specifically to operate on an atomic battlefield, and Europe was the theater where such a conflict was most likely to take place."[27] The purpose of the pentomic division, and the fact doctrine focused on "successfully engaging in warfare," not merely deterrence, meant that the strategic settings used to teach students doctrine did indicate how McGarr and other leaders at CGSC assessed the feasibility of atomic warfare.

The revised Annex B published on 1 January 1958 revealed McGarr's growing skepticism about atomic warfare's feasibility. His 1957-1958 curriculum guidance to faculty had stated that:

> Local war is a war conducted within a restricted geographical area to achieve limited political and military objectives. It is a condition short of general war and does not involve the commitment of the total war-making potential of the United States. *The scope and extent of the war are restricted by moderating influences applicable to both sides,* although these restrictions may be removed suddenly and without warning (emphasis added).[28]

The revised Annex B, published one year later, changed the last sentence of the definition quoted above to "[t]his type of war cannot involve open hostilities between the United States and the Soviet Union. In this form of war, nuclear weapons may or may not be employed."[29] McGarr's 1958, guidance was a significant shift from his January 1957 planning guidance for local war. In 1957, his guidance implied that local war could be controlled or contained to the battlefield. His 1958, guidance concluded that local war was not feasible against the Soviet Union because it would escalate to general war. McGarr based his change on his view of the operational environment. His guidance to faculty on local war, published in November 1957, noted that "the situation within the Soviet Union and the satellites is sufficiently uncertain to make drastic changes in this area [of local war] possible overnight."[30] By January 1958, McGarr's curriculum guidance to the faculty refelaed he was certain about the uncertainty of local war's feasibility because the scale and use of atomics and the enemy's nature remained unpredictable.

McGarr's guidance on local war diverged from the Department of the Army's definition of limited war. His curriculum guidance noted that, "[a]lthough Department of the Army uses the term 'limited war' to describe conflict short of a general war, the College term 'local war' (which can logically be shown as a lesser included part of limited war) is specifically applicable to operations of the army in the field."[31] McGarr narrowed the definition of limited war to local war, and focused it on a specific geographical area because he did not believe it was a feasible concept to counter the Soviet Union. He did not comment directly on the idea of an atomic army as a deterrent, but he did question the feasibility of fighting (and winning) a limited war against the Soviet Union in a published planning document. McGarr's caveat that "nuclear weapons may or may not be employed," indicated he believed that if strategic deterrence failed, even a conventional war would escalate to general war.[32] If a local war under nonatomic conditions was not possible between the United States and the Soviet Union then the US Army was not a credible deterrent force, regardless of its force design or atomic capability. The lack of consensus about atomic warfare that emerged between Group A and B in the 1954 Easterbrook Report was now part of the commandant's curriculum guidance.

Here was the irony of the US Army in the 1950s. As the most dangerous threat remained the Soviet Union, the US Army developed concepts and force designs that had limited feasibility in an actual conflict with the Soviet Union because it risked escalation to general war. The CGSC cur-

riculum outlined atomic scenarios in which the United States used atomic weapons on another army or country. Yet, the curriculum guidance directed that, "[t]his type of war can not involve open hostilities between the United States and the Soviet Union," which disclosed that CGSC leaders recognized the likelihood of escalation.[33] The Department of the Army's drive for relevance in the atomic age made warfare on the atomic battlefield a priority for the service's legitimacy. The college had difficulty developing a scenario where the US Army employed atomic weapons without triggering general war.

As early as April 1957, the guidance for incorporating regions into Local War scenarios revealed that doubt existed about limiting war. The Local War curriculum listed North Africa, the Middle East, and Southern Europe as the first priority region. No mention was made of Central Europe in the list of four regions. Scandinavia received third priority after Asia. South America rounded out the list. What about Central Europe? If general war lacked utility in Central Europe, and local war would escalate to general war in Europe as McGarr believed, then the argument for developing atomic operating concepts and formations to defeat the Soviets appeared flawed. Historian Ingo Trauschweizer argued that Eisenhower and the Chairman of the Joint Chiefs of Staff, General Nathan Twining believed "[t]he defense of Europe still rested on the assumption that war between the United States and the Soviet Union could only be general."[34] McGarr's curriculum guidance supported Eisenhower's view of general war but the local war scenarios remained in the curriculum to support the Army Chief of Staff, General Maxwell Taylor's pentomic concept. Carter argued "while atomic weapons might help to deter war, they were not a viable means for fighting one," and that by the 1960s soldiers "approached their mission with a greater degree of skepticism and uncertainty."[35] McGarr's skepticism about local war demonstrated the lack of consensus among senior leaders.

The pentomic division, whether it was a budget appropriations gimmick or an honest attempt at force design, relied on mobility, communication, dispersion, and communication. In 1958, Generals William Westmoreland and Henry I. Hodes recommended to Taylor that the US Army abandon the concept after the 101st Airborne Division and USAREUR tested the pentomic division. What may have been a surprise for Taylor in 1958, seemed obvious to Lieutenant Colonel Frank W. Moorman in July 1950, as the US Army began studies about reorganizing its combat division.[36] US Army officers and CGSC instructors writing in *Military Review* understood the importance of logistics and mobilization to waging war.

Yet, as the focus on incorporating technology and adapting force designs to atomic battlefields, the emphasis and awareness of logistics faded. The shift started in the mid-1950s as the US Army faced reductions in force while seeing its role and scope expanded. The need to do more with less led US Army officers to prioritize cuts to service and support troops. While logisticians in 1950 like Lieutenant Colonel Moorman had identified the contradictions of supporting a more mobile, dispersed, and firepower centric force with less support troops, fielding an atomic army took priority.[37]

The inattention to logistics may have inspired the opening line to a staff paper titled, "The Fate of the Logistician." Tucked in the Commandant's Policy and Precedent File from 1957, the unnamed author noted an enduring truth of US Army operations, reaffirmed by the debate about the atomic battlefield: "Logisticians are a sad, embittered race of men, very much in demand in war, who sink resentfully into obscurity in peace."[38] Despite the initial debate about the importance of logistics in the early 1950s, by 1957 the pentomic division concept relied on equipment and vehicles that the US Army had not fielded.[39] Exercises conducted by the 7th Army in 1958 revealed that the pentomic divisions had enough armored personnel carriers to transport one battle group, leaving the other four battle groups immobile on the atomic battlefield that required mobility and dispersion.[40] The 7th Army also tested the logistics of supplying atomic munitions during an atomic war. The 1958 exercise FULL PLAY, organized by Supreme Headquarters, Allied Powers, Europe (SHAPE), demonstrated that 7th Army did not have the required personnel or equipment to transport atomic munitions to meet the expenditure rates used in the exercise.[41] The pentomic division reorganized combat units to fight on the atomic battlefield, but the support units and equipment made the concept unworkable in practice.

The lack of consensus about doctrine and organization at the end of the 1950s led the college back to where it had started in 1946: evaluating its mission and structure. Prompted the US Army reorganization caused by a 1961 study directed by Secretary of Defense Robert S. McNamara, the college conducted a series of studies in 1962 to "determine how this [US] Army reorganization would affect the College."[42] The most significant change was the deactivation of the Departments of Doctrine and Combat Developments.[43] The system of doctrine development formalized by Davidson and McGarr through internal staff studies and reorganization no longer fell under the direction of the Commandant. The two departments "formed the nucleus" of the US Army Combined Arms Group and the US Army Combined Arms Combat Developments Agency under the

direction of the Combined Arms Group established at Fort Leavenworth.[44] The original questions of how the army should be organized and how the army should fight that occupied the time and intellect of numerous commandants and countless faculty during the 1940s and 1950s no longer had a structural place in the college's organization.

Notes

1. Lionel C. McGarr, "Outline Plan /8 Curriculum," After Action Report, Curriculum Planning Board /8, CGSC Curriculum, CARL.

2. Lionel C. McGarr, "Subject: Guidance for Planning the /8 Curriculum," 30 October 1956, After Action Report, Curriculum Planning Board /8, 1.

3. HQ CONARC 20 August 1956 (Annex J to Faculty Memorandum No. 1, 3 January 1957), SUBJECT: Emphasizing Atomic Warfare Instruction in Army Service Schools, Commandant's Policy and Precedent File, vol. 3.

4. Lionel C. McGarr to Assistant Commandant, "Subject: Further thoughts on /8 Curriculum," 6 November 1956, After Action Report, Curriculum Planning Board /8, 2.

5. Trauschweizer, *Cold War* US Army, 241.

6. Donald A. Carter, *The Army Before Vietnam, 1953-1965* (Washington, DC: US Army Center for Military History, 2015), 29.

7. McGarr, "Further thoughts on /8 Curriculum," 3.

8. Lionel C. McGarr, "Introductory Remarks for CONRAC Inspection Team Briefing," 26 February 1957, Commandant's Policy and Precedent File, vol. 2, 1 January to 31 March 1957, CGSC Curriculum, CARL.

9. Lionel C. McGarr to Assistant Commandant, "Subject: 2nd AATCAW, [no date listed but between 17-21 May 1957], Commandants Policy and Precedent File, vol. 4, 1-31 May 1957, CGSC Curriculum, CARL.

10. Lionel C. McGarr, Handwritten Note, 13 May 1957, Tab 19, Commandant's Policy and Precedent File, vol. 4.

11. McGarr, "USA Command and General Staff College Keeps Pace with the Future," 3.

12. Lionel C. McGarr, "The Doctrinal Basis of Instruction," 1 January 1958, Annex H to Faculty Memo N-1, CGSC Curriculum, CARL.

13. McGarr, "Introductory Remarks for CONRAC Inspection Team Briefing."

14. McGarr, "CONRAC Briefing."

15. McGarr, "The Doctrinal Basis of Instruction."

16. DOA, FM 100-5 (1954), 4.

17. McGarr, "The Doctrinal Basis of Instruction."

18. "Strategic Settings, Annex A (Revised) to Faculty Memorandum No. 1," 3 January 1957, Faculty Memorandum, Folder 2 of 3, Faculty Memo #1 with Annexes, File CGSC /7, CGSC Curriculum, CARL.

19. Linn, *Elvis's Army,* 89-93.

20. HQ CONARC to CGSC, "Training Memorandum Number 8," 13 April 1956, Faculty Memorandum, Folder 2 of 3, 19-20.

21. HQ CONARC to CGSC, Folder 2 of 3, 19-20.

22. HQ CONARC to CGSC, Folder 2 of 3, 19-20.

23. McGarr, "Subject: /9 Planning Memorandum Number 6, /9 Curriculum Guidance and Decisions on /9 Curriculum," 44.

24. McGarr, “Subject: /9 Curriculum, 45.

25. “Revised Annex B to Faculty Memorandum No. 1,” 1 January 1958, Commandant’s Policy and Precedent File, vol. 3.

26. McGarr, *Special Report of the Commandant,* 42.

27. Carter, *Forging the Shield,* 299.

28. “Strategic Settings, Annex A (Revised) to Faculty Memorandum No. 1,” 7.

29. “Revised Annex B to Faculty Memorandum No. 1,” 6-7.

30. McGarr, “/9 Planning Memorandum Number 6, /9 Curriculum Guidance and Decisions on /9 Curriculum,” 45.

31. “Revised Annex B to Faculty Memorandum No. 1,” 6-7.

32. “Revised Annex B” 6-7.

33. “Revised Annex B to Faculty Memorandum No. 1,” 6-7.

34. Trauschweizer, *Cold War US Army,* 67.

35. Carter, *Forging the Shield,* 467.

36. Moorman, “Logistical Problems in Future Warfare,” 4.

37. Moorman, “Logistical Problems in Future Warfare,” 4.

38. “Fate of the Logistician,” Commandant’s Policy and Precedent File, vol. 3, 1.

39. Carter, *Forging the Shield,* 466; Linn, *Elvis’s Army,* 115.

40. Carter, *Forging the Shield,* 312.

41. Carter, *Forging the Shield,* 310.

42. Talbot Barnard, *The History of Fort Leavenworth, 1952-1963* (Fort Leavenworth, KS: US Army Command and General Staff College, 1964), 24-25.

43. Barnard, History of Leavenworth, 24.

44. This reorganization placed the Combined Arms Group under the US Army Combat Developments Command located at Fort Belvoir, VA. See Barnard, *History of Leavenworth,* 1952-1963, 25.

Conclusion
"An Extremely Nebulous and Complex Task:" Doctrine and Professional Military Education

> Preparation for war is an expensive, burdensome business, yet there is one important part of it that costs little—study.
>
> —Field Marshal Viscount William Slim, *Defeat Into Victory*

> I am tempted to declare that whatever doctrine the Armed Forces are working on now, they have got it wrong. I am also tempted to declare that it does not matter that they have got it wrong. What matters is their capacity to get it right quickly when the moment arrives.
>
> —Michael Howard, "Military Science in the Age of Peace"

Leaders at the Command and General Staff College struggled to develop doctrine and instruction from 1946 to 1960 because both required a level of consensus about limited war's feasibility that did not exist at CGSC. Colonel Seth Weld noted in his 1954 assessment of doctrine development at CGSC that, "[t]he establishment of doctrine and the most efficient organization based thereon, is an extremely nebulous and complex task."[1] While the US Army and the college identified and offered a solution to the complexity of doctrine development with the creation of the Combined Arms Group, the nature of doctrine development remained nebulous. The college's challenge was a microcosm of the institutional challenge facing senior leaders of the US Army. Consensus about atomic doctrine and instruction required officers to view atomic doctrine as feasible within the operational environment. Despite the lack of consensus, CGSC commandants did develop curriculum to support the US Army's organizations—regardless of the acceptance or feasibility of the concepts. Examining the complex and nebulous nature of doctrine development in the 1950s demonstrates the connections between combined arms doctrine, strategic context, and professional military education.

Combined arms operations remained the central concept of US Army doctrine in the atomic age. Initially, officers viewed atomic weapons as increased firepower to support the tradition of maneuver and firepower on the battlefield. The increasing destructive power of atomic weapons threatened to disrupt the balance of maneuver and firepower. The power of atomic weapons and the uncertainty of their use undermined the dual capable concept promoted by the Army Chief of Staff, General Maxwell

Taylor. Evolution and adaptation are better terms to describe the development of the US Army since 1945. Even in the 1950s, the facts and assumptions driving the doctrine development and force design had more to do with pre-atomic concepts than the advent of the missile and atomic age. Despite the changing technology and geopolitical conditions, the basis of US Army doctrine remained combined arms operations.

Yet, it was unclear if combined arms operations provided the best doctrine for all strategic contexts. Tactical doctrine cannot be divorced from strategic settings. The effectiveness of combined arms operations in the 1950s should not be discounted, but many US Army officers at CGSC did question its feasibility against the Soviet Union. Tactical doctrine finds its utility in battlefield effectiveness *and* in support of strategic objectives. The utility of atomic organizations and doctrine rested in defining the atomic doctrine's feasibility in the strategic context of the Cold War. Doctrinal coherence required an appreciation of the capabilities and limitations of military power in achieving political objectives. In a more theoretical sense, doctrine had to give equal appreciation to war's nature and war's character. The major dispute within the US Army during the 1950s was the question of limited war's feasibility. Officers confused two meanings of feasibility. One meaning of feasibility focused on the ability of atomic doctrine to achieve victory on the battlefield. The second meaning dealt with strategic feasibility–linking the effects of the atomic battlefield to meaningful political objectives. US Army officers did not agree on the feasibility of atomic war at either level.[2] A mismatch between tactics and strategy did not prevent the development of new material, organizations, or doctrine, but it did disrupt doctrinal consensus within the US Army.

Though CGSC focused on tactics, doctrine development allowed tactical and organizational leaders to influence the feasibility of force in pursuit of national interests. Historian Hew Strachan reached this conclusion in his analysis of the German General Staff's focus prior to World War I. He argued that "tactics dictated operational possibilities, and they in turn threatened to usurp the direction of strategy itself. The result was intellectual confusion."[3] This concept eluded US Army leaders in the 1950s. As Taylor's critique of the New Look revealed, many US Army leaders considered war with the Soviet Union to be a military problem that needed a military solution, rather than a political blunder to avoid. Leaders at CGSC realized something about war had changed with the dawn of the atomic age. General Garrison Davidson's curriculum guidance noted that, "Merely superimposing atomic weapons on a so-called conventional battlefield can only confuse basically different problems or required doc-

trine."[4] While Davidson and other leaders realized that the tactics of World War II could not be overlayed with atomics, doctrine continued to focus on combined arms. US Army officers understood that warfare had changed but they failed to see how war's nature remained constant and the potential consequences of attempting to limit atomic weapons to the battlefield despite war's uncertainty. CGSC thought about tactics when the world situation required operational art and strategic thinking. The difference was not in force design or army operating concepts but defining the limits of war's utility in the atomic age.

There are striking similarities between the pentomic army and the challenges faced by the US Army in 2023. Though the Cold War ended over thirty years ago, the potential for conflict between nuclear-armed great powers remains. The fear of a rising China, the Russian-Ukraine War, and the United States treaty obligations in Europe and the Pacific create a challenging strategic setting. The greatest similarity is that the US Army often escaserbates the challenges by its focuse on material solutions and dedication to combined arms warfare without considering the strategic consequences.

While the US Army has more relevance and legitimacy in 2023 than in 1953, it still pursues high-tech solutions without adjusting its recruitment and retention to attract long-serving technical specialists. The systems-based approach codified in Multi-Doman Operations (MDO) reveals a similar pattern of piling material and weapon-systems onto a combined arms doctrine. The definition of MDO is combined operations, with the addition of Joint capabilities.[5] The means of warfare may have changed with the addition of domains, dimensions, and material but the way—combined arms—has not changed. Arguably, less change is good for an organization. MDO retains the same questions of feasibility that plagued the US Army's approach to limited war. The problem is not MDO but its feasibility in certain strategic settings. While it was designed to offset Chinese and Russian advantages, it does not account for escalation.

The pentomic army concept focused on deterring and defeating the Soviet Union but McGarr and other college leaders doubted the feasibility of limiting war. The threat-based doctrine lacked feasibility against the threat. The same might be said of MDO. The concept is sound, assuming a nuclear-armed great power does not use nuclear weapons. The issue of escalation raises a more important question: what national interest is important enough to risk the possibility of a nuclear exchange? That is a strategic decision outside the US Army's role, but an army based on combined arms warfare can only perform certain missions without a change in

doctrine or organization. The tension between counterinsurgency doctrine and combined arms operations from 1950 to 2020 indicates the US Army has trouble sustaining two different doctrinal concepts, let alone fielding organizations for two concepts. Like CGSC leaders in the 1950s, there is a burdern to "get it right." Professional military education serves a vital role in identifying the best operating concept for the US Army.

The debates within CGSC in the 1950s show that there was a much closer relationship between tactics and strategy than was reflected in US Army doctrine. The assumptions about war's nature influenced debates about the character of war and the future battlefield. Though CGSC was a tactical school, its leaders and faculty thought about the connections between tactics and strategy. A good idea at the tactical level, such as using atomic firepower to overcome a ground force numerical imbalance, was a bad idea at the strategic level as military and political leaders debated the probability of conflict escalation.

The focus of the debate reveals the important role of professional military education: it is never too early to introduce military students to the theory of war. While there is a benefit, undoubtably a need, to impart doctrinal knowledge so military students can operate effectively as staff officers and commanders, it cannot come at the expense of theory. While empiricism should influence the development of doctrine—the bottom-up development Davidson advocated for—it must be understood in the strategic context.[6] That strategic context is war's purpose in society. The inherent difficulty military officers face as they develop operating concepts and force design is that they are trained to find a military solution to a military problem. This difficulty is inherent in the various capacities field grade officers serve after the CGSC. While it may seem reasonable that a field grade serving on a division or corps staff does not need to understand the theory of war, a CGSC graduate might find themselves serving at the US Army or Joint level and influencing operational and strategic matters. There is no hard separation between the levels of war because they are an analytical tool, not reality. A study of the theory of war would teach that to military students. Just as the distinction between the art and science of warfare is not clear, neither is the difference between the practitioner and the theorist.

Analyzing the development of doctrine at CGSC in the 1950s complicates two perspectives offered by historians Williamson Murray and MacGregor Knox. They argued that, "interwar organizations that innovated successfully took professional military education equally seriously" and that "military organizations that innovated without a clear opponent in

mind had a far more difficult time."[7] If 1946 to 1950, or even 1946 to 1960, are viewed as interwar years when the United States faced down the Soviet Army in Europe, the limits of innovation and the danger of a myopic focus on one opponent becomes clear. While the CGSC curriculum in the 1950s reflected the college leaders' desire to study the right doctrine for future war, they could not develop consensus given the tension between service priorities and the strategic context. CGSC commandants and faculty took their role seriously, and some might argue perhaps too seriously given the number of internal studies conducted. Yet, given the time and effort devoted to doctrine development in the 1950s and the lack of consensus one final perspective is clear. It is not enough to be dutiful; officers must be intellectually capable of grappling with the theory of war and determining the utility of doctrine in relation to strategy. Doctrine development continues to be "an extremely nebulous and complex task."

Four topics deserve further research that exceeded the scope of this manuscript. First, the relationship between CGSC and CONARC during the 1950s and how it shaped doctrine development. A focus on the communication between commanders or the organizations would provide a better understanding of how reluctant or compliant CGSC commanders acted during the 1950s. The second topic is the structure of combat development groups throughout the US Army and how they interacted. Part of the complexity of doctrine development stemmed from service schools' initiative to modify curriculum. Though CGSC had a unique role in the US Army education system, it developed doctrine and instruction within a larger system. The third area of research is the Department of Research and Analysis at CGSC and how it contributed to the curriculum. While there was a clear mission for the department, an analysis of the department's contributions to the curriculum and its effectiveness could provide unique perspectives on how to balance concepts and doctrine in professional military education. Finally, the pages of *Military Review* offer plenty of material for an analysis of principles and concepts used by US Army officers to describe future warfare in the 1950s.

Notes

1. Weld Memo, 22.

2. Linn, *Elvis's Army,* 93-96.

3. Hew Strachan, "From Cabinet War to Total War: The Perspective of Military Doctrine, 1861-1918," in *Great War, Total War: Combat and Mobilization on the Western Front, 1914-1918,* eds. Roger Chickering and Stig Forster (New York: Cambridge University Press, 2006), 25.

4. Davidson, "Subject: Guidance for Planning the /6 Curriculum."

5. Headquarters, Department of the Army (HQDA), Field Manual (FM) 3-0 *Operations* (Washington, DC: Army Publishing Directorate, 1 October 2022), 1-2.

6. Davidson, Letter to Wyman, 2.

7. Williamson Murray and MacGregor Knox, "Conclusion: The Future Behind Us," in *The Dynamics of Military Revolution, 1300-2050* (New York: Cambridge University Press, 2003), 182-187.

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