

U.S. Army Corps Development in World War I

**A Monograph
by
MAJ Vaughn D Strong Jr
United States Army**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

AY 2010

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 074-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 01 July 2011	3. REPORT TYPE AND DATES COVERED SAMS Monograph	
4. TITLE AND SUBTITLE U.S. Army Corps Development in World War I			5. FUNDING NUMBERS	
6. AUTHOR(S) MAJ Vaughn Douglas Strong Junior				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School of Advanced Military Studies (SAMS) 250 Gibbon Avenue Fort Leavenworth, KS 66027-2134			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Command and General Staff College 731 McClellan Avenue Fort Leavenworth, KS 66027-1350			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited				12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 Words) This paper examines the development of the American Army corps structure during World War I. The corps formation developed in World War I by General John J. Pershing was the culmination of 56 years of lessons learned from the Civil War through the beginning of World War I. The success of the American Expeditionary force (AEF) in World War I was, in large part, the result of the development and combat effectiveness of the corps formation. The corps formation allowed commanders flexibility, concentrated firepower, sustainability, and increased command and control. The American corps formation in World War I led the AEF to victory in the Saint Mihiel and Meuse-Argonne campaigns. The American corps formation provided resources and capabilities that helped provide the needed edge to defeat the Central Powers and help end World War I.				
14. SUBJECT TERMS U.S. Army Corps Development, American Expeditionary Force in WWI, Elements of Operational Art, Meuse-Argonne, Saint Mihiel				15. NUMBER OF PAGES 61
				16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT None	

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major Vaughn Douglas Strong Jr

Title of Monograph: U.S. Army Corps Development in World War I

Approved by:

Thomas A. Bruscino, Ph.D.

Monograph Director

Myron J. Reineke, COL, IN

Second Reader

Wayne W. Grigsby, Jr., COL, IN

Director,
School of Advanced
Military Studies

Robert F. Baumann, Ph.D.

Director,
Graduate Degree
Programs

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Abstract

U.S. ARMY CORPS DEVELOPMENT IN WORLD WAR I by MAJ Vaughn D Strong Jr, USA, 57 pages.

This paper examines the development of the American Army corps structure during World War I. The corps formation developed in World War I by General John J. Pershing was the culmination of 56 years of lessons learned from the Civil War through the beginning of World War I. The success of the American Expeditionary force (AEF) in World War I was, in large part, the result of the development and combat effectiveness of the corps formation. The corps formation allowed commanders flexibility, concentrated firepower, sustainability, and increased command and control.

The American corps formation in World War I led the AEF to victory in the Saint Mihiel and Meuse-Argonne campaigns. The American corps formation provided resources and capabilities that helped provide the needed edge to defeat the Central Powers and help end World War I.

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Introduction

World War I was a devastating general war that ravaged much of the world from 1914 through 1918. The two sides had fought to a stalemate and the war turned into a war of attrition before the United States entered in 1917.¹ In 1917 the United States entered the war and brought with them fresh ideas, fresh troops, and logistics that helped turn the tide in the Allies' favor, resulting in an Allied victory.

World War I began not due to a single event, but due to a series of political policies and treaties that had developed over the later nineteenth and early twentieth centuries. These intricate treaties and policies were all set and waiting for the inevitable spark that would set off the chain reaction that would lead up to the "Great War." This event came on 28 June 1914, with the assassination of Archduke Francis Ferdinand, heir to the Austro-Hungary throne, by Serbian partisans.² A month later Austro-Hungary declared War on Serbia and thus ignited the spark that led up to World War I.

The Zimmerman telegram in conjunction with Germany's declaration of a continuation of unrestricted submarine warfare convinced the United States to enter the war on the side of the Allies against Germany.³ The United States officially declared War on Germany on the sixth of April, 1917 and entered into combat operation during that year. The United States was faced now with an even larger dilemma: how to build, train, and equip a modern army capable of being successful on the modern industrial battlefield?

On 1 April 1917, the U.S. Army only had over 300,000 soldiers from the active army, reserves, and National Guard. In Edward Coffman's *The War to End All Wars*, Coffman states

¹ Hew Strachan, *The First World War* (New York: Penguin Books, 2005), 3.

² Center of Military History United States Army, *American Armies and Battlefields in Europe* (Washington D.C.: US Government Printing Office, 1931), 2.

³ Ibid., 9-13.

that the army was trained for frontier fighting and not for conventional warfare. “The active force of regulars and guardsmen were prepared neither in organization nor in equipment for service in Europe.”⁴ The majority of the American regular army was on the Mexican border and the majority of the National Guard was not mobilized. The Army did not have any organizations above the division level and they were not structured to fight a modern general war. The staffs of the army were undermanned and there was a lack of sufficiently trained officers to fill in the gaps that growing the army would create. The lack of war production capabilities also hampered any efforts by the United States to grow and train a substantial force to deal with Germany and her allies.⁵ The result of these deficiencies was that the U.S. was not able to send a substantial force to the European theater until at least 1918.

The President, Congress, the War Department, and the Army’s Chief of Staff had the task of building, training, and equipping a modern force. General John Pershing had the enormous task of organizing the American Expeditionary Force (AEF) and restructuring its command and control organization.⁶ As the newly deployed AEF grew in size in France during 1917, General Pershing re-established the corps structure in the AEF. The division would be the fighting tactical unit while the corps would be the organizational structure to coordinate fighting among the divisions on the Western Front.⁷ The level of command and control allowed for coordinated campaign plans and flexibility to react to enemy actions.

General Pershing’s AEF played a vital role in the defeat of Germany and the eventual signing of an armistice on 11 November 1918 between the allied and central powers in World

⁴ Edward M. Coffman, *The War To End All Wars: the American Experience in World War I* (Lexington: University Press of Kentucky, 1968), 18.

⁵ Ibid., 20.

⁶ Ibid., 127.

⁷ John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades* (Washington: Center of Military History, US Army, 1998), 47.

War I. The successful mobilization of the AEF helped to win World War I and secure the United States as a key player on the world stage.⁸

The success of the American Expeditionary force in World War I was, in large part, the result of the development and combat effectiveness of the corps formation. The corps formation allowed commanders flexibility, concentrated firepower, improved logistics, and increased command and control. General Pershing designed the AEF's corps formation to be comprised of four divisions and a corps command headquarters. The structure and conduct of the AEF's corps formations provide many lessons to be learned about operational art. The Corps commanders and corps structures of the AEF were successful in offensive campaigns and in battles on the front lines. This structure allowed the Corps commanders flexibility in battle and to be able to have a continuous fighting force on the front lines with two divisions fighting at any particular time and place.

Literature Review

Much scholarly work devoted to the analysis of American Expeditionary Force in World War I from 1917 through 1918 exists today. Most of the works focused their efforts on either the strategic level of the AEF or on the tactics that were fought at the key battles in World War I. Some of these works are autobiographies, such as General John Pershing's *My Experiences in the World War*. Pershing focused his autobiography on the strategic level of war and discusses topics such as the government's mobilization for war, War Department decisions, and logistics for the AEF.⁹ Pershing also focuses on his combat experiences in World War I and the reasons behind his decisions to organize the AEF in the manner in which he did. Pershing understood the need for command and control of the forty-three divisions that were to be under his command. The

⁸ Ibid., 364.

⁹ John J. Pershing, *My Experiences in the World War: Volume I* (New York: Frederick A. Stokes Company, 1931), 12.

command and control issues he focused on were the lack of modern doctrine, trained staffs, and communication issues that the American Army faced at the onset of World War I. Pershing created the corps structure in order to deal with the American command and control issues and also to solve the dilemmas faced by the British and French units.¹⁰ Pershing describes his creation of the “box” corps of four divisions with a corps headquarters. The corps formation would allow for flexibility and allow commanders to be able to continuously rotate divisions in and out of battle to allow for continual contact with enemy forces with refitted and reorganized American forces. Pershing was optimistic about how he changed doctrine and tactics to answer the problems he faced during WWI and how he solved the issues he faced at the onset of the war.¹¹

The 50th anniversary of World War I sparked a series of analysis in to the real stories behind the AEF in World War I. Works like Edward M. Coffman’s *The War to End All Wars* challenged the writings of Pershing, which had been accepted as the true account of the war. Coffman focused on the strategic level of war and points the severe shortcomings of the United States and AEF at the time America entered WWI. He focused on the severe lack of foresight by the politicians of the United States and the failure of the American Army to modernize its tactics for industrial warfare.¹² The Army and the nation were posed to fight a frontier war against the Native Americans and the Pancho Villa threat from Mexico and were not ready for a modern industrialized war. Coffman states that “Regular army observers considered the state of training of nearly all of the units entering active service as little more than rudimentary.”¹³ Coffman discussed how the national logistical issues, the ability for the army to recruit and equip its

¹⁰ Ibid., 100-110.

¹¹ Pershing, *My Experiences in the World War: Volume II*, 391.

¹² Coffman, *The War To End All Wars*, 9-10.

¹³ Ibid., 13.

military forces, and the training American soldiers received were major issues for the AEF. Despite all these shortcomings, Coffman displays the AEF in a positive light and says America prevailed due to logistical planning, industrial might, and the strategies of General Pershing.¹⁴

Donald Smythe's *Pershing: General of the Armies* is also a strategic level analysis of the AEF and the conduct of General Pershing in WWI. Like Coffman, Smythe focuses on the shortcomings of the War Department and the AEF as they entered WWI, but also describes how Pershing mitigates these deficiencies and prevails in the major battles of the AEF. Smythe argues that Pershing's autobiography left out the details about the controversies the AEF experienced with the allies, the friction with the American War Department and the friction within AEF.¹⁵ He then discusses how Pershing overcame each of these issues and elaborates on the successes of Pershing strategies. Special attention is given to the issues between Pershing and the War Department. Smythe argues that the War Department was "Pouring the business of an army of two million through the neck of a bottle built for 125,000 was bound to result in some jamming."¹⁶ Although the War Department was deficient, Pershing was unrealistic about his demands for logistics. Smythe's work cites the success of the AEF was due to Pershing's strategic foresight. Several other authors, such as John Mosier and Frank E. Vandiver, come to similar conclusions about Pershing and the AEF.¹⁷

Although many authors have focused on the strategic level of WWI, there are just as many that focus on the tactical level of the battles fought in WWI by the AEF. Timothy

¹⁴ Ibid., 363-364.

¹⁵ Donald Smythe, *Pershing: General of the Armies* (Bloomington: Indiana University Press, 1986), 51.

¹⁶ Ibid.

¹⁷ John Mosier, *The Myth of the Great War: A New Military History of World War I* (New York: HarperCollins Publishers, 2001), 7. Frank E. Vandiver, *Black Jack: The Life and Times of John J. Pershing* (College Station: Texas A&M University Press, 1977), xvi.

Nenninger has produced several articles and books that have focused on the tactical doctrine and actions taken by the AEF on the battlefields in Europe. Nenninger has an extremely negative view on the tactical doctrine that was partly developed by General Pershing and viewed the leadership in the AEF as lacking the foresight and training needed to be successful on the modern industrialized battlefields of Western Europe. In his article titled “Dysfunction in the AEF, 1917-1918,” Nenninger argues that AEF’s pursuit of open warfare doctrine while simultaneously training for trench warfare caused confusion on the battlefield for soldiers and officers. Nenninger argues that this conflict caused “Rigid plans of attack, lines of infantry advancing over open ground without regard for concealment or cover, [and] little use of fire and maneuver” which plagued the AEF in the beginning of the American involvement of the war.¹⁸ In his article “Unsystematic as a Mode of Command: Commanders and the Process of Command in the American Expeditionary Forces, 1917-1918,” Nenninger also attacks General Pershing’s tactical decisions on the battlefield. “Pershing lacked complete understanding of tactical conditions on the Western Front.”¹⁹ Nenninger blasts Pershing and other AEF commanders for not learning the tactical lessons discovered by the British and French forces after almost four years of warfare on the Western Front.

Another expert on the tactical level of warfare of the AEF in WWI is David Trask. Although Trask does focus several works on the strategic level, he also makes arguments at the tactical level. In his work *The AEF and Coalition Warmaking, 1917-1918*; Trask argues that even though the AEF was successful on the battlefield, the high casualty level was due to inexperienced officers on the battlefield and failure to learn the tactical lessons from the British

¹⁸ Timothy Nenninger, “Dysfunction in the AEF, 1917-1918,” *Military Affairs* 51 (October 1987): 178.

¹⁹ Timothy Nenninger, “Unsystematic as a Mode of Command: Commanders and the Process of Command in the American Expeditionary Forces, 1917-1918,” *The Journal of Military History* 64 (July 2000): 743.

and French.²⁰ Trask is openly negative towards the conduct of tactics by the AEF and sites specific examples Pershing's pursuit of open warfare and the lack of the AEF to conduct combined operations as the reason for a lack of true success. "An emphasis on combined arms operations characterized British and French training during the decisive phase of war, a stress that developed tardily in the AEF."²¹ These tactical mistakes made by Pershing and the AEF accounted for high levels of casualties in the early operations of the AEF in WWI.

Byron Farwell's *Over There* is an additional work that focuses both on the strategic and tactical levels of warfare. Byron states that the United States succeeded in World War I not because it had superior tactics or doctrine but because the will of the German Army had already been defeated.²² He illustrates that the fresh troops, equipment, and morale of the US Military demoralized a weary German military and caused them to give up. Farwell does state that Pershing and his campaigns were successful but that the success was not due to military genius but to a weakened enemy. Finally he focuses on the fact that even though the French and British high command were always quick to criticize the AEF, "they failed to recognize that they themselves had demanded that the Americans be pushed into action before they were fully trained."²³ Farwell is critical of the AEF but also recognizes the miraculous transformation the US Army made to mobilize an army from a frontier army of barely 300,000 troops to a modern industrial army of almost three million men.

Mark Grotelueschen wrote *The AEF Way of War* and argued that even though strategic level writers like Coffman were correct about Pershing, they did not get into enough "detailed

²⁰ David Trask, *The AEF And Coalition Warmaking, 1917-1918* (Lawrence: University Press of Kansas, 1993), 18-19.

²¹ Ibid., 19.

²² Byron Farwell, *Over There* (New York: W. W. Norton and Company, 1999), 20.

²³ Ibid.

operational analysis that would move the debate away from the simple good-bad dichotomy”²⁴ discussion between success and failures of the AEF in WWI. Grotelueschen argues that even though Pershing’s corps and army headquarters were slow to change doctrine and tactics, the divisional commanders were adapting to the operational environment extremely quickly. He argues that because the division was designed to be an independent unit, it had the ability to react to situations and adapt as necessary to the changing environment. Even though Grotelueschen does talk about the division as a tactical unit, he argues that the corps and higher commands were too far away from the front lines in order to be able to see the adaptations needed for the changing environment. Grotelueschen states that the division became a learning organization and the corps and higher failed to transform to the industrialized battlefield.²⁵

Robert Ferrell’s *America’s Deadliest Battle: Meuse-Argonne 1918* also focuses both on the strategic and tactical shortcomings of America and the AEF in WWI and focuses his works on the Meuse-Argonne offensive. He states that there were two major tasks America faced when it entered the war. These tasks were the “industrial mobilization and preparation of the army to fight in France.”²⁶ Ferrell argues that America’s industrial capabilities were not prepared for modern warfare and that America had to frantically mobilize its industrial base to be able to support a force of almost three million men. He places the blame for this failure on the lack of foresight from President Woodrow Wilson. The other task Ferrell focuses on is the development of the AEF. He again places blame on the Wilson administration and blames the War Department for not seeing the need for a modern military. Ferrell then focuses his work on the AEF and the tactical engagements that led up to the Meuse-Argonne. He states that lack of

²⁴ Mark E. Grotelueschen, *The AEF Way of War: the American Army and Combat in World War I* (Cambridge: Cambridge University Press, 2007), 4.

²⁵ Ibid., 8.

²⁶ Robert Ferrell, *America’s Deadliest Battle: Meuse-Argonne, 1918* (Lawrence: University Press of Kansas, 2007), 1.

combat experience and costly mistakes by junior and senior officers were the reasons for the high casualties in the early combat for the AEF. The AEF did succeed in learning lessons after every battle and adapted their tactics, but the AEF was only in major combat operations for five months. The AEF gained the experience level that the British and French armies possessed only after their first two years of fighting.²⁷

The works of previous authors and experts have focused either at the tactical level of combat or at the strategic level of decision making. None of the experts focus their attention on the operational level of war. The operational level of warfare links the strategic and tactical levels of warfare and focuses on campaign planning and execution. The corps formation in WWI provided the link between the strategic army headquarters and tactical division headquarters that allowed the American strategy to be communicated into tactical actions by the divisions. By ignoring this important formation, previous works have failed to understand the American battlefields in Europe during WWI at the operational level.

The development of the corps formation in the United States Army is the reason for the success of the AEF in WWI. The corps formation allowed commanders flexibility, improved logistical capabilities, increased command and control, and improved firepower over its allies and its enemies. To determine how the AEF's corps formations were so successful this study will commence with a brief review of the corps structure in the American Army in the nineteenth and early twentieth centuries. The history on the American corps structure will start with the corps' inception in the American Civil War to the development of the corps structure of WWI. This allows explanation for the purpose of a corps formation in the American military and why it evolved to its WWI size and structure. Next, the study will focus on the effectiveness of AEF Corps (especially I, III, IV, and V Corps) in offensive campaigns starting with the Saint Mihiel

²⁷ Ibid., 148-149.

campaign and ending with the first phase of the Meuse-Argonne campaign (28 Sep – 3 Oct 1918). This study will use the elements of operational art to analyze the success and failure of campaigns of the AEF throughout WWI.

American Army Corps Development

The concept of the corps formation originated in the Napoleonic Wars.²⁸ Napoleon Bonaparte developed the concept of the division and corps formation to deal with the immense size of the French Army that was developed to protect France from invasion and for their conquest of Europe.²⁹ These new formations allowed for flexibility in movement and communication that was unheard of in the wars of Europe's past.³⁰ This flexibility and speed gave Napoleon the ability to mass his army at the decisive point and be victorious during his early campaigns.³¹ The aftermath of the Napoleonic Wars sent a wave of literature and teachings whose intent was to capitalize on the success of Napoleon and the conduct of the French Army in combat. Authors like Carl von Clausewitz and Antoine-Henri Jomini focused on the strategy and tactics involved in combat and inspired generations of future officers in the art and science of warfare and the composition and conduct of forces in the field.

Before the American Civil War, there was not a need in the American Army for the corps formation. The wars against England, Mexico, and the frontier wars were engagements between relatively small numbers of opposing forces and did not require mass movements nor complicated command structures. The American Army had been designed and maintained as a frontier

²⁸ Robert M. Epstein, "The Creation and Evolution of the Army Corps in the American Civil War," *The Journal of Military History* 55 (January 1991), 22.

²⁹ Gunther E. Rothenberg, *Napoleonic Wars* (London: Cassell, 2000), 62.

³⁰ Martin Van Creveld, *Command in War* (Cambridge: Harvard University Press, 1985), 60.

³¹ Gunther E. Rothenberg, *The Art of Warfare in the Age of Napoleon* (Bloomington: Indiana University Press, 1980), 28.

defense force. The historian Robert Epstein states that “An armed citizenry was to join federal service in the event of invasion or foreign war and military service would last only for the duration of the emergency.”³² The result of this frontier design was that the American Army never grew to a force over 100,000 soldiers prior to the beginning of the American Civil War and did not need the command structure that the corps formation provided.

Before the Civil War began, institutions such as the United States Military Academy, taught the tactics and strategies of the great generals of the Napoleon Wars. Instructors, such as Dennis Hart Mahan, taught the principles of Napoleonic warfare to the future generals on both sides of the civil war to include Robert Lee, Ulysses S. Grant, John Reynolds, and George McClellan.³³ Even though the leaders of the US Army understood the concepts of Napoleonic warfare, there was still not a need for such a structure considering the size of the American Army in 1861 before the Civil War numbered at only 17,687 troops.³⁴ This changed when the seven southern states seceded from the United States and declared open hostilities by firing on Fort Sumter, South Carolina on 12 April, 1861.

Department and Army commanders on both sides quickly discovered that there was a significant command and control gap between the department/army levels and the division/brigade levels. Historian Russell Weigley states that “The Army of the Potomac was an unwieldy organization of some 150,000 men in an agglomeration of about fifteen divisions.”³⁵ The solution to the command and control problems faced by the Union and Confederate forces was the creation of the corps formation. Even though the majority of senior leadership on both

³² Epstein, “Creation and Evolution,” 21.

³³ Russell F. Weigley, *History Of The United States Army* (Bloomington: Indiana University Press, 1984), 150-151.

³⁴ Ibid., 190.

³⁵ Ibid., 227.

sides studied the Napoleonic War, few generals truly understood how to organize a corps structure to be effective on the battlefields of North America. Robert Epstein argues that the result was that both sides went through a trial and error phase and “improvements had to be learned the hard way, by experience.”³⁶ This experience was very costly for both sides as commanders experimented with formations and command structures.

The first side to experiment with the formation of the corps structure was the Confederacy. General P. G. T. Beauregard organized his eight brigades into the First Corps on 20 June 1861. Robert Epstein also points out that the lesson that Beauregard learned after the First Battle of Bull Run was that brigades reporting to a corps formation “was simply not enough to make the corps an efficient military organization.”³⁷ The corps formation needed divisional structures, corps staffs, and other coordination measures in order to be successful on the battlefield. By January 1862, Beauregard had created a corps staff of thirteen officers, consolidated his eight brigades under four divisions and had a total of 23,440 men. Other Confederate generals, such as Lieutenant General Thomas Jackson and Lieutenant General James Longstreet, also developed corps formations (named *commands*) and used these formations to fight in the Shenandoah and Peninsula campaigns in the spring of 1862. On 6 November, 1862, the Confederate government officially organized these commands into corps formations. The key to these corps formations was that they were to be able to act as an independent, combined arms unit and have the capability to conduct campaign plans for the armies they served under.

Although the Confederacy experienced success in their creation and development of the corps formations, their Union counterparts experienced a very steep learning curve that prevented them from early success in their campaigns. Epstein also points out that “The failure of the

³⁶ Epstein, “Creation and Evolution,” 46.

³⁷ Ibid., 24.

Union forces . . . to organize into effective army corps was due to military incompetence and political factors”³⁸ in addition to the usual woes that a newly created army would suffer. President Lincoln understood Napoleonic warfare and as early as 24 October 1861 was pressuring members of the army to create corps formations in order to deal with the multiple threats that faced the Union from the Confederacy. The head of the Army of the Potomac, General George McClellan, resisted the requests by President Lincoln and did not create any unit higher than the division level. By March of 1862, President Lincoln grew weary of General McClellan and ordered the creation of four corps for the Army of the Potomac. By 17 July, 1862, Congress decreed the formation of corps in the Union Army and thus put an end to the resistance by General McClellan. Weigley argues that the general structure of the Union corps “commonly embraced three divisions, aggregating about forty-five regiments of infantry and nine batteries of artillery.”³⁹ These corps also lacked the concentration of artillery and cavalry that plagued the confederacy as well. In order to overcome the issues with artillery and cavalry, both sides created corps artillery and corps cavalry units.⁴⁰ These new formations allowed commanders on both sides to concentrate the fires and reconnaissance assets at the decisive point in the battle in order to achieve victory.

After the Civil War, the Congress drastically reduced the number of federal troops authorized by the War Department. In response the “War Department disbanded the field armies, along with their army corps, divisions, and brigades.”⁴¹ The regiment became the standing unit of the Federal Army and the army went back to the task of expanding the frontier and protecting it against the threats from Native American tribes and the southern border with Mexico.

³⁸ Ibid., 29.

³⁹ Weigley, *History Of The United States Army*, 227.

⁴⁰ Epstein, “Creation and Evolution,” 35.

⁴¹ Wilson, *Maneuver and Firepower*, 16.

In May of 1898, the USS Maine was sunk off the coast of Cuba in Havana harbor. This incident enraged the American public and thus the United States declared war with Spain on 25 April 1898. On the 22 April 1898, Congress authorized the formation of brigades, divisions, and corps.⁴² The officers of the War Department organized the corps into three or more divisions. Each division was comprised of three brigades each with three regiments per brigade. The size of the division was roughly 11,000 men which was the same size of a Civil War division. The differences between the Civil War corps and the Spanish-American war corps was the size of the staff and the integration of cavalry and artillery at the onset of the war. Historian John B. Wilson argues that the corps still lacked logistical support structures and “little specialization existed beyond the combat arms.”⁴³ The division and the brigade had a more robust staff that helped to coordinate with the corps staff.

Congress authorized President McKinley to create eight corps but he only officially organized seven.⁴⁴ These corps saw action in Cuba, the Philippines, and Puerto Rico. Partial army corps provided the forces for each operation in which the heavily outnumbered Spanish were defeated on all fronts. Even though the corps formations were developed at the start of the war, the commanders who led these corps did not have any experience commanding large forces due to the lack of command structure after the Civil War. The result was civil war era frontal attacks against Spanish positions in Cuba that led to high levels of casualties.⁴⁵

The war with Spain lasted for only four months and as soon as the war ended in August 1898, the wartime army also began to end. The last army corps and division headquarters were disbanded on 13 April 1900 even though there were still troops in the Philippines, Guam, and

⁴² Weigley, *History Of The United States Army*, 306.

⁴³ Wilson, *Maneuver and Firepower*, 19.

⁴⁴ Weigley, *History Of The United States Army*, 306.

⁴⁵ *Ibid.*, 307.

Cuba. Even though the Spanish-American War displayed the weaknesses of the consistent lack of a higher chain of command structure, the War Department decided that the formation was not worth spending the resources it required to keep the higher formations active.⁴⁶ Although the corps and divisions were officially disbanded by Congress, the American forces in the Philippines organized themselves into departments and military districts based upon location. The four geographical departments resembled the corps structure and would increase or decrease in size depending on the number of units assigned to the department for a specific campaign. The military districts resembled the division headquarters and were assigned brigades based upon the missions being conducted in the specific departments.⁴⁷ These headquarter elements were organized to fight an insurrection and were quite different from the operational corps and division headquarters that fought against the Spanish.

Even though the division and corps headquarters were disbanded after the Spanish-American War, the senior leaders of the army understood the need to keep a higher level headquarters in order to keep the senior leaders able to command and control large organizations. From the Civil War through the Spanish-American War, the corps was the lowest unit that contained combined forces. During the period from 1898 through 1910, the new chief of staff of the army and his general staff members developed the division in to the combined unit to replace the corps. In theory, the division would replace the need for the corps and thus the division would report directly to the field army commander. The army was concerned with defeating threats on the home front (especially from Mexico) and designed its military to resemble its mission given by the President and the War Department.⁴⁸

⁴⁶ Wilson, *Maneuver and Firepower*, 18.

⁴⁷ Mary C. Gillett, *The Army Medical Department 1865-1917* (Washington D.C.: Center of Military History United States Army, 1995), 202.

⁴⁸ Wilson, *Maneuver and Firepower*, 24.

As the clouds of World War I began to descend on Europe, the American Army had its attention on its southern border with Mexico from 1913 through 1917.⁴⁹ The policy of President Woodrow Wilson from the beginning of WWI through the entrance of America in to the war was neutrality. Russell Weigley argues that Wilson's official policy prevented "any departure from the traditional limits of American military system."⁵⁰ Although there was a push from the War Department and Congress to prepare the American army for the battlefields of Europe, Wilson's policies prevented the army from modernizing. These actions focused the attention of the American Army on its frontier protection role and the army was caught flat footed when President Woodrow Wilson declared war on Germany on 6 April, 1917. Even though President Wilson had conceded to the War Department and made efforts to double the size of the army and the military in anticipation of war in Europe, the American army still only had a divisional level command structure that was focused on frontier defense and not on modern industrial warfare.⁵¹ The Secretary of War Newton D. Baker understood that the American Army lacked the organizational structure to fight on the modern industrial battlefields of Europe. On 28 May 1917, the Secretary of War and the War Department tasked Colonel Chauncey Baker, an expert in transportation, to conduct a board to analyze the force structures of the French and British armies and report his findings.⁵² At the same time, General Pershing conducted a similar investigation of

⁴⁹ Ibid., 34.

⁵⁰ Weigley, *History Of The United States Army*, 342.

⁵¹ Wilson, *Maneuver and Firepower*, 37.

⁵² William M. Wright, "Baker Board Report," in *United States Army in the World War 1917-1919: Organization of the Allied Expeditionary Forces*, ed. Historical Division, Department of the Army (Washington D.C.: Historical Division, Department of the Army, 1948), 55.

the French and British armies.⁵³ These two separate teams produced one document that was submitted to the War Department. This document was called the *General Organization Project*.⁵⁴

Colonel Baker's team and General Pershing's team each looked at separate allied units on the western battlefields of Europe. Colonel Baker and General Pershing also met several times in France to discuss their findings and agree on a force structure for the Army. Colonel Baker's findings focused mainly at the division and below.⁵⁵ Colonel Baker looked at the infantry, artillery, quartermaster, engineers, cavalry, and general headquarters' staff structure of the allied powers and gave his recommendations as to the composition of the division. General Pershing's report focused on the higher echelons of the AEF structure. Pershing focused his attention on the division and higher force structure.⁵⁶

General Pershing and Colonel Baker both published the findings of their research to the War Department in the month of July 1917. The result of this combined research was the structural development of the AEF. The first key decision was the divisional structure consisting of 25,000 men. This Divisional structure was twice the size of the normal French or British division (see illustration 1).⁵⁷ John Wilson argued that the purpose of the size of the division was to "field enough men to fight prolonged battles."⁵⁸ These divisions consisted of two brigades with two regiments each of infantry. There was also a field artillery brigade, an engineer regiment, a signal battalion, and logistical trains. There was only one major disagreement

⁵³ John J. Pershing, "General Organization Report," in *United States Army in the World War 1917-1919: Organization of the Allied Expeditionary Forces*, ed. Historical Division, Department of the Army (Washington D.C.: Historical Division, Department of the Army, 1948), 91.

⁵⁴ Wilson, *Maneuver and Firepower*, 52.

⁵⁵ Chauncey B. Baker, "Baker Mission to England and France," in *United States Army in the World War 1917-1919: Organization of the Allied Expeditionary Forces*, ed. Historical Division, Department of the Army (Washington D.C.: Historical Division, Department of the Army, 1948), 56.

⁵⁶ Pershing, "General Organization Project," 93.

⁵⁷ Wilson, *Maneuver and Firepower*, 56.

⁵⁸ *Ibid.*, 53.

between General Pershing and Colonel Baker. This was the composition of the artillery brigade. Baker argued for lighter British 3.8 or 4.7 inch howitzers while Pershing argued for French 155mm and 75mm guns that were heavier and less mobile. Baker also argued for three batteries of trench mortars while Pershing wanted only one. In the end the General staff accepted Pershing's recommendations due to his influence and experience. The War College Division created Pershing's formations as requested but did increase the division staff to a greater number than Pershing had requested due to the anticipation of tactical and administrative requirements.⁵⁹

The second key decision was the force composition of the corps. General Pershing published the results of the *General Organization Report* on 10 July 1917.⁶⁰ In his report, Pershing requested an initial force of one million men in order to begin an offensive in 1918 and a force of three million men in order to accomplish his task of winning the war in Europe by 1919.⁶¹ In order to accomplish this he knew the AEF would need a field army command and a corps command structure in order to manage the number of divisions it would take to field a million man army. Pershing analyzed the corps structure of the French and British armies and accepted the French recommendation of a four division corps.⁶² Pershing describes his reasoning below:

The fighting corps of 4 divisions is accepted from the French project for many reasons. In modern war, divisions must be employed not only side by side but also in two lines, i.e., one in rear of the other. With a two-division corps (one division employed necessarily in a second line), the front of attack is too narrow for the full and complete utilization of the artillery of the corps. With a three-division corps, sufficient reinforcements are not available and mixing of units of three divisions in preference to those of two results. Also, in reliefs and exchanges of trench warfare duties, there should be one division to relieve another as well as one regiment within the brigade as a relief for the other, etc. During the period of offensive action on a large scale, a corps employed

⁵⁹ Ibid., 55.

⁶⁰ Pershing, "General Organization Project," 91.

⁶¹ Ibid., 93.

⁶² Ibid., 94.

on the defensive can be maintained without disruption of organization even if two divisions of this corps are sent to the offensive sector.⁶³

Although Pershing accepted the French model for the corps, he modified it in order to account for shortfalls of the American logistical and soldier replacement system.⁶⁴ Pershing called for a corps to have six infantry divisions. Four of these infantry divisions would be combat divisions, while the other two would be a replacement and training division. Pershing envisioned 5 corps with 20 combat divisions and 10 sustainment divisions for his AEF.⁶⁵ Pershing's corps would also contain a headquarter element plus smaller units such as fire support battalions, engineer trains, communication battalions, and logistical capabilities.⁶⁶ Pershing envisioned a corps that was capable of maintaining sustained combat operations. He was willing to forego speed and agility for firepower and strength.⁶⁷

Once General Pershing was established in Europe and American divisions were fighting in Europe, Pershing altered the corps structure in order to account for the conditions in France. Pershing created a corps element that encompassed five divisions. John Wilson states that four divisions would be maneuver divisions of the corps while one division would be the replacement division that would "distribute new personnel to their units."⁶⁸ These replacement divisions would also augment the maneuver divisions with personnel in the case the maneuver divisions lacked replacements. There was also a depot division ran at the army level that would be in charge of training new units to be prepared for combat operations on the front lines. General Pershing also restructured the divisional headquarters under functionalities and increased the size

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Wilson, *Maneuver and Firepower*, 54.

⁶⁶ Pershing, "General Organization Project," 97.

⁶⁷ Ibid.

⁶⁸ Ibid., 68.

of the corps staff in order to provide adequate command and control functions for the large numbers of combined forces that the divisions contained.⁶⁹

This corps command and control structure allowed for extreme flexibility and continuous operations to be conducted at the front lines. The divisions were called the box division due to the four regiments that comprised the division and the corps was called the box corps due to the four maneuver divisions. The corps formation was flexible and was able to flex divisions from one corps to another depending on the mission, but the basic corps formation accounted for four divisions.⁷⁰ The logic behind the four division structure was that at any given time, two divisions could be in contact with the enemy while the remaining two divisions were able to refit and reorganize behind the front lines. Once the two divisions in contact culminated, the two divisions in reserve could continue the fight and hopefully penetrate the defenses of the enemy and cause a breakthrough. The two divisions that had culminated would have time to refit and reorganize long enough to continue the cycle all over again.⁷¹

The corps formation developed in World War I by General Pershing was the culmination of 56 years of lessons learned from the Civil War through the beginning of World War I. General Pershing understood the importance of the corps formation, its ability to conduct campaign operations and its ability to independently operate in a theater of war. The corps structure of the AEF was the reason why American forces were so successful on the western front. The American corps formation provided resources and capabilities that helped provide the needed edge to defeat the Central Powers and end World War I.

⁶⁹ Ibid., 67.

⁷⁰ Pershing, *My Experiences in the World War: Volume II*, 127.

⁷¹ Pershing, "General Organization Project," 94.

Effectiveness of the AEF Corps

The effectiveness of the Corps in the American Expeditionary Force will be analyzed over two separate campaigns of WWI. These campaigns are the Saint Mihiel Salient and the first offensive in the Meuse – Argonne (28 Sep – 3 Oct 1918). The Saint Mihiel Salient involved the American First, Fourth, and Fifth Corps of the First Army while the Meuse-Argonne involved the First, Third, and Fifth Corps of the First Army.⁷² This section will focus on these two major American campaigns of the war and evaluate the corps according to the elements operational art (see Appendix A).⁷³

From June 1917 up until August 1918, the units of the American Expeditionary Force fought under British and French army commands on the battlefields of Europe. Units such as the American First and Third Corps saw action in the Marne and the Vesle campaigns under French army commands while the American Second Corps fought under the British army command.⁷⁴ On 10 August 1918, General Pershing created and organized the American First Army under his command.⁷⁵ Pershing had been pushing for a separate American command at the beginning of the American involvement in World War I, but had run into a series of political and military roadblocks that prevented this event from occurring. Even though Pershing was the overall American commander, he felt that the First Army should fall under his direct command because “no American chief had, as yet, been obliged to grapple with the difficulties and complications

⁷² G. J. Fiebeger, *The World War* (West Point, NY: United States Military Academy Printing Office, 1921), 243.

⁷³ U.S. Army, *Field Manual 3-0, Operations 2008 Change 1* (Washington, DC: Headquarters, Department of the Army, 2008), 7-1 – 7-16.

⁷⁴ Colonel De Chambrun and Captain De Marenches, *The American Army in the European Conflict* (New York: The MacMillan Company, 1919), 249.

⁷⁵ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 18.

entailed by a command over a very extensive front.”⁷⁶ Pershing felt he was the only man capable at the time to lead the American First Army.

The Saint Mihiel Salient Campaign

The first mission that the First Army would undertake would be the reduction of the Saint Mihiel salient. The original German offensives during 1914 created a salient at Saint Mihiel in France and the German held territory did not change shape significantly during the four years of the war.⁷⁷ The attack involved elements of the French Second Colonial Corps, the American First, Fourth, and Fifth Corps all under the command of the American First Army.⁷⁸ General Pershing commanded the First Army, General Blondelat commanded the French Colonial Corps, Major General Hunter Liggett commanded First Corps, Major General Joseph Dickman commanded Fourth Corps, and Major General George Cameron commanded Fifth Corps.⁷⁹ The forces were arrayed from right to left in the following order around the salient: the First Corps, the Fourth Corps, the French Colonial Corps, and the Fifth Corps (see illustration 2 and 3).⁸⁰

On 12 September 1918, the attack began with a massive artillery bombardment against German positions in the salient at 0100 hours. At 0500 hours the infantry attack began along the eastern line of the salient while the infantry attack began at 0800 hours along the western front of the salient.⁸¹ The main effort for the campaign was the First and Fourth Corps. These corps received the mission to advance five miles into enemy territory towards the town of Vigneulles.

⁷⁶ Chambrun and Marenches, *The American Army in the European Conflict*, 248.

⁷⁷ Robert B. Bruce, *A Fraternity of Arms* (Lawrence: University Press of Kansas, 2003), 264.

⁷⁸ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces* (Washington D.C.: US Government Printing Office, 1937), 209.

⁷⁹ Shipley Thomas, *The History of the AEF* (New York: George H. Doran Company, 1920), 209.

⁸⁰ Saint Mihiel campaign maps are located in Illustration section.

⁸¹ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 111.

The Fifth Corps was to also advance towards Vigneulles and close off the salient. The French Second Corps was to delay the enemy as long as possible until the salient was closed and then all units were to reduce the salient. By the end of 13 September 1918, the salient had been closed. By 16 September 1918, the salient had been destroyed and the new front line stretched from Pont-a-Mousson to Haudiomont. 17 September 1918, the Germans increased the number of divisions to counter the American First Army to over ten divisions which halted the American offensive. The campaign for the Saint Mihiel Salient was over with less than 9,000 American casualties, over 15,000 captured German soldiers, 450 cannon pieces captured, and over 200 square miles of French territory liberated from German control.⁸²

The Saint Mihiel Salient Campaign: American First Corps

The American First Corps (led by Major General Liggett) was on the right flank of the Saint Mihiel salient and was composed of five divisions. These divisions from right to left along the front line were the 82nd Division, the 90th Division, the 5th Division, and the 2nd Division with the 78th Division held in reserve.⁸³ The attack was made with the 90th, 5th, and the 2nd Division on line with the 82nd Division making a demonstration near the Moselle River and the 78th Division being held in reserve to exploit success in the attack.

On 12 September 1918, Liggett focused his corps artillery on the greatest concentration of German forces just north of Thiaucourt in order to prevent the Germans from reinforcing their front lines and disrupt enemy supply operations to the Saint Mihiel salient.⁸⁴ Thiaucourt was also the main objective for First Corps due to its railroad capabilities and it being the main supply route of the German forces in to the salient. By 1100 hours, elements of the 2nd and 5th Divisions

⁸² Ibid., 112.

⁸³ Hunter Liggett, *Commanding an American Army* (New York: Houghton Mifflin Company, 1925), 64.

⁸⁴ Ibid., 63.

had taken Thiaucourt, while the 90th Division had little success due to heavy resistance at the Bois-le-Pretre. The 82nd Division was successful in their demonstration while the 78th still remained in reserve. German forces at the Bois-le-Pretre escaped northward fearing being enveloped by the attack. On 13 September, the 90th Division continued their attack and took Bois-le-Pretre and on 14 September, the entire corps pushed forward. By the end of 15 September, the First Corps had advanced seven and a half miles past their start point, achieved all of their objectives, and helped to destroy the Saint Mihiel salient. On 16 September, the battle lines stabilized and so Liggett then pulled the 2nd and the 5th Divisions off of the front lines for refit and replaced them with the 78th Division and also brought the 82nd Division to the front lines.⁸⁵ After the campaign ended, the First Corps was relieved by the Fourth Corps and prepared for the coming offensive against the Meuse-Argonne. The 78th, 90th, and 82nd Divisions were detached from First Corps and assigned to Fourth Corps.

The actions of the First Corps in the Saint Mihiel campaign were very successful. Major General Liggett's planning and battlefield actions as a corps commander were successful due to the structure of the corps formation and the personal leadership of Liggett. The corps structure gave Liggett the capability to be flexible in his plan and offered him a freedom of maneuver that made him successful on the battlefield. The corps was flexible in that the formation was able to add or subtract divisions according to what the mission required. The five divisions that Liggett commanded gave him the ability to conduct simultaneous operations along the front. The demonstration conducted by the 82nd Division fixed German forces and made them unavailable for the initial battles of the campaign. Liggett simultaneously conducted an assault with the other three divisions and helped to succeed in achieving their initial objectives by 1100 hours on the morning of 12 September. Having the corps artillery division and other assets allowed for an

⁸⁵ Ibid., 67.

attack in depth across the First Corps' front. The corps artillery attacked the German rear echelon and logistical positions while performing a rolling barrage that struck at the German frontline forces. The corps artillery was concentrated near Thiaucourt to prevent reinforcements and supplies from reaching the salient. This artillery bombardment severely disrupted the German operations and allowed for the 2nd and 5th Divisions to overrun the German forces opposing them.⁸⁶

The structure of the corps gave First Corps the ability to have operational reach. The logistical trains associated with the corps were robust and able to support the corps for extended operations. This gave Liggett the ability to assault three divisions at the same time while the fourth was conducting a demonstration. The assault of the 2nd, 5th, and 90th Divisions were supported by internal artillery along with the corps artillery allowing for the employment of long range weapon systems that allowed freedom of maneuver and suppression of enemy artillery positions. Liggett used the size of the corps to be able to have the 78th Division in reserve and be able to use elements of the 82nd Division in case the enemy counterattacked or specific divisions culminated. The reserve units gave Liggett the flexibility to reinforce success and prevent a premature culmination before the corps could reach its objectives. The structure allowed Liggett to calculate his risk of the mission and plan accordingly. Finally, the structure of the corps allowed Liggett to transition from offense to defense rather quickly due to the units he kept out of the fight. The assault divisions were robust enough to seize the objectives and once the corps culminated on 15 September, Liggett had the available forces to rotate the 2nd and the 5th Divisions from the front lines and push the 78th and the 82nd Division forward. On 16 September,

⁸⁶ George S. Viereck, editor, *As They Saw Us* (Garden City, NY: Doubleday, Doran and Company, Inc, 1929), 199.

the front lines consisted of the 78th, the 90th, and the 82nd, with the 2nd and the 5th Division in reserve.⁸⁷

The Saint Mihiel Salient Campaign: American Fourth Corps

The American Fourth Corps (commanded by Major General Joseph Dickman) was located in the center of the attack into the Saint Mihiel salient. Fourth Corps was the second of two corps that were the priority for the campaign. The Fourth Corps was comprised of the 1st, 42nd, 89th, and the 3rd Infantry Divisions. The 3rd Infantry Division was slated to be the corps reserve for the campaign. At 0100 hours on 12 September the elements of the corps and division artillery opened fire for over four hours. This preparation fire was intended to “damage the German wire, destroy many of the enemy’s machine guns, and drive his troops to cover.”⁸⁸ The concentration of artillery, gas attacks, and aerial bombardment caused much confusion among the German lines and destroyed several supply trains that were caught unprepared.⁸⁹ At 0500 hours, the three assault divisions began their drive for their objectives at Vigneulles, Xammes, and Thiaucourt. The 1st Division was on the left flank of the Corps with the 42nd in the middle and the 89th on the right. The Fourth Corps also sent in tank units with the 1st Division to provide support against enemy strong points.

By the end of 12 September 1918, the assault divisions had reached their first day objectives and were poised to link up with elements of Fifth Corps to seal the salient at Saint Mihiel and cut off the remaining German units. On the night of the 12th and early morning of the 13th of September, elements of the 1st and 89th Division continued their advance towards

⁸⁷ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 211.

⁸⁸ Joseph T. Dickman, *The Great Crusade* (New York: D. Appleton and Company, 1927), 152.

⁸⁹ Ibid.

Vigneulles and Xammes respectively.⁹⁰ By the evening of 13 September, the link up with Fifth Corps was complete and the salient was closed. Many German forces escaped on the night of 12 September due to the slow advance of the 1st Division. On 14 September Dickman consolidated his forces and brought the 1st Division off the line and kept the 1st and 3rd Divisions in reserve while the 42nd and 89th Divisions remained on the front lines.⁹¹ The retreating Germans allowed the corps to advance an additional 2-3 miles before the Fourth Corps was ordered to halt its advance and consolidated its forces with the rest of the American First Army on the 16th of September, 1918.

The combat operations of the Fourth Corps achieved its objectives despite having less combat power than that of the First Corps. The way that Dickman fought his corps did not allow for the same flexibility as that of the First Corps, but Dickman used other aspects of his corps structure that made his operations successful. Dickman, like Liggett, massed his corps assets on the German front and rear lines to provide operational reach for his corps. His corps artillery division fired rounds for over four hours in order to reduce the enemy fortifications and disrupt enemy supply lines. Dickman's gas units fired mustard gas in forests and cross roads to provide massive confusion for the German forces while the infantry advanced.⁹² The effect that this achieved was a simultaneous attack on German rear positions and frontline positions. This attack in depth prevented the German forces from concentrating and organizing an effective defense. This use of combined arms at the decisive point allowed his divisions to capture their objectives with little enemy resistance and effectively link up with elements of the Fifth Corps cutting off the salient.

⁹⁰ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 277.

⁹¹ Ibid.

⁹² Dickman, *The Great Crusade*, 152.

The support divisions also allowed for simultaneity and depth in Dickman's attack. The advances of the infantry were covered by the corps assets and allowed for the German forward and rear units to be attacked simultaneously and in depth.⁹³ Dickman's use of artillery to disrupt German communications and logistics; use of gas to restrict movements and clog lines of operations; and aerial bombardments in German staging areas overwhelmed the defending forces.⁹⁴ The German forces were demoralized and put up little resistance against the onslaught of the Fourth Corps. Dickman knew that in order for his corps structure to truly be able to fight effectively, the operation needed to be phased to be able to continuously allow for the corps assets to provide support to the divisions. These phases were by days and had specific objectives that each division had to accomplish by the end of the day.⁹⁵ This phased operation allowed for command and control of the divisions and allowed for the corps logistical and artillery divisions to keep up with the advancing infantry divisions providing a continual level of support. After the corps' objectives were met on 14 September, Dickman pulled his 1st Division off the line and returned to two divisions on the line (the 42nd and the 89th) and two divisions in reserve (the 1st and 3rd). This formation gave Dickman flexibility when fighting the remaining two days. If the Germans counterattacked or the 42nd and 89th culminated, Dickman had two fresh divisions to rotate in to the fight and keep the advance from faltering.

The Saint Mihiel Salient Campaign: American Fifth Corps

The American Fifth Corps (commanded by Major General George Cameron) was successful at achieving its objectives of the Saint Mihiel campaign. The Fifth Corps was comprised of the American 26th and 4th Division and the French 15th Colonial Division. The 26th

⁹³ Viereck, *As They Saw Us*, 195.

⁹⁴ Dickman, *The Great Crusade*, 152.

⁹⁵ *Ibid.*, 150.

Division and French 15th Colonial Division were slated for the assault with the 8th Brigade of the 4th Division. The remainder of the 4th Division was held in reserve. The size of the 15th French Colonial Division was roughly half the size of a normal American Division (14,000 men compared to 28,000).⁹⁶ The Fifth Corps was the supporting effort in the Saint Mihiel campaign and was not given the number of divisions compared to the First and Fourth Corps. Like the other two corps, a preparation bombardment of artillery began at 0100 hours on the morning of 12 September 1918 which lasted for over seven hours. At 0800 hours the assault force began their attack with the 8th Brigade from the 4th Division on the left flank, the French 15th Colonial Division in the center and the 26th Division on the right flank of the Fifth Corps.

The primary mission of the 8th Brigade and French 15th Division was to protect the corps left flank and the northern flank of the 26th Division respectively.⁹⁷ The 26th Division was to assault along a very narrow front to link up with elements of the First Corps and close the salient to Saint Mihiel. By the end of 12 September 1918, the 26th Division advanced more than two miles southeastward towards the town of Vigneulles. On the night of 12 September and into the morning of 13 September, elements of the 26th Division linkup with elements of the 1st Division from the Fourth Corps and successfully closes the salient. On 14 September, elements of the French Second Colonial Corps relieved the 26th Division. This allowed the 26th Division to turn north towards the retreating enemy. On 15 September, elements of the French 15th Colonial Division and the 26th Division continued their advance while the 8th Brigade returned to the 4th Division in reserve. The 26th and French 15th Colonial Divisions pushed forward until the American First Army ordered a halt on 16 September 1918. Once the battle ended, the 4th

⁹⁶ James G. Harbord, *The American Army in France: 1917-1919* (Boston: Little, Brown, and Company, 1936), 422.

⁹⁷ Fiebeger, *The World War*, 232.

Division was released to the Third Corps; the 26th and French 15th Colonial Divisions were assigned to the French Second Corps.⁹⁸

The actions taken by the Fifth Corps in the Saint Mihiel campaign were successful in achieving their objectives. Cameron was in a supporting role and only received three infantry divisions to use in the campaign. Cameron did not have the ability to accomplish any other goals outside of his mission to take Vigneulles. He had to keep most of the 4th Division in reserve with the 8th Brigade supporting the French 15th Colonial Division. Due to the small size of the French 15th Colonial Division, Cameron could only use the size of the 26th Division along a very narrow front to achieve his objectives of closing the salient. Cameron was able to still use his support divisions to achieve operational reach with his 26th Division. Cameron laid an artillery barrage for seven hours in an attempt to reduce the enemy strong point, disrupt enemy rear operations, and protect the flanks of the advancing 26th Division.

Cameron did not have the normal corps structure and thus was not able to create simultaneity and depth in his attack. His tempo was based on the advance of one division and if that division came into any real opposition there is doubt that Cameron could have had the forces to penetrate any stiff German resistance or survive a concentrated counterattack. During 12 September, the 26th Division extended their attack towards Vigneulles and outpaced the French 15th Colonial Division. This exposed the 26th Division's Northern flank to an attack from the enemy but fortunately the German forces were more concerned with retreating from the salient than they were in counterattacking.⁹⁹ The Fifth Corps is an example of how going against the American corps structure has the potential of causing disaster. The Fifth Corps violated the elements of operational art but was fortunate that they did not run into stiffer German resistance.

⁹⁸ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 277.

⁹⁹ Harbord, *The American Army in France*, 423.

The Fifth Corps had the potential for serious casualties until the corps consolidated on 14 September and met with elements of the French Second Corps.

The Meuse - Argonne Campaign

The second mission that the First Army would undertake was the Meuse-Argonne Campaign. Before the battle of Saint Mihiel, the Allies had agreed on 3 September 1918 for a general offensive to take place along the entire western front on 26 September 1918.¹⁰⁰ The American First Army was chosen to attack in the Meuse-Argonne region. This location was important because it was a major railroad communications area for the German military.¹⁰¹ The attack in the American sector involved elements of the American First, Third, and Fifth Corps all under the command of the American First Army.¹⁰² General Pershing commanded First Army, Major General Hunter Liggett commanded First Corps, Major General Robert Bullard commanded Third Corps, and Major General George Cameron commanded Fifth Corps.¹⁰³ The forces were arrayed from right to left in the following order in the initial Meuse Argonne campaign: the Third Corps, the Fifth Corps, and the First Corps (see illustration 4-6).¹⁰⁴

On 25 September 1918, the attack began with a massive artillery bombardment against the German positions on the Meuse-Argonne front at 2300 hours. At 0530 hours on 26 September 1918, the infantry attack began along the First Army front.¹⁰⁵ The First Army's objective was to

¹⁰⁰ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 167.

¹⁰¹ Harbord, *The American Army in France*, 429-430.

¹⁰² Bruce, *A Fraternity of Arms*, 267.

¹⁰³ Thomas, *The History of the AEF*, 239.

¹⁰⁴ Meuse-Argonne campaign maps are located in Illustration section.

¹⁰⁵ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 173.

push German forces back to the *Hindenburg line*.¹⁰⁶ The main effort for the campaign was the Fifth Corps who was designated to reduce the enemy strongpoint vicinity Montfaucon and advance almost ten miles towards the city of Romagne. The First Corps was to protect the left flank of the Fifth Corps and attack German forces in the Argonne Forest from the east. The Third Corps was to protect the right flank of the Fifth Corps and help to reduce the Montfaucon strongpoint.¹⁰⁷ First Army held six divisions in reserve to commit as needed for the campaign.¹⁰⁸ By the end of 26 September 1918, the First Army had only penetrated five miles along the front, with a salient around the Montfaucon strongpoint. On 27 September 1918, First Army renewed the attack and cleared the salient at Montfaucon.¹⁰⁹ By 30 September, German high command reinforced the Meuse-Argonne region with seven divisions and conducted a counterattack that forced the advancing allies to go on the defensive.¹¹⁰ From 1 October through 3 October, the only corps to conduct offensive maneuvers was First Corps. First Corps continued with their general advance through the Argonne forest. First Corps penetrated 1,000 yards before they were stopped by German reinforcements. Third and Fifth Corps were unable to continue offensive operations by 1 October 1918 and use this time to consolidate and reorganize their units.¹¹¹ From 1 October through 3 October the majority of First Army consolidated their forces, reorganized the

¹⁰⁶ The Hindenburg line was the name given to the defensive positions that stretched from Lens to beyond Verdun. This line was the First Army objective for the first phase of the Meuse-Argonne campaign.

¹⁰⁷ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 172.

¹⁰⁸ Thomas, *The History of the AEF*, 241.

¹⁰⁹ Ibid., 248.

¹¹⁰ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 176.

¹¹¹ Thomas, *The History of the AEF*, 260-261.

remaining forces, and moved fresh divisions to the front lines in preparation for the next phase of the campaign.¹¹²

Meuse-Argonne Campaign: American First Corps

The American First Corps (led by Major General Hunter Liggett) was on the left flank of the First Army and responsible for the Argonne Forest. First Corps was comprised of four divisions. These divisions from right to left were the 35th Division, the 28th Division, and the 77th Division with the 92nd Division held in reserve. The attack was made with the 35th, 28th, and 77th Divisions on line with the 92nd Division being held in reserve to exploit success in the attack.¹¹³

On 26 September 1918, Liggett focused his corps artillery on the first three German trench positions along his front in order to reduce the enemy artillery and prevent the enemy from retreating north to their alternate fighting positions.¹¹⁴ The towns of Varennes and Apremont were the main objectives of the First Corps for the first day of battle. By the end of 26 September 1918, the 35th Division advanced four miles and captured the towns of Vauquois and Cheppy. The 28th Division had advanced four miles and cleared the town of Varennes with elements of the 35th Division. The 77th Division advanced two to three miles into the Argonne Forest and secured their primary objectives. From 27-30 September 1918, First Corps continued their advance along their assigned sectors, but came under increasing enemy resistance as four German divisions were brought to slow the advance of the corps.¹¹⁵ By the end of 30 September 1918, the First Corps had advanced over seven miles past their start point, but failed to achieve the First Army objectives of advancing ten miles towards the Hindenburg line. The enemy resistance had forced the First Army to conduct a halt in order to reorganize and consolidate their forces. The only unit

¹¹² Thomas, *The History of the AEF*, 260.

¹¹³ Liggett, *Commanding an American Army*, 75.

¹¹⁴ Thomas, *The History of the AEF*, 244.

¹¹⁵ Liggett, *Commanding an American Army*, 81-82.

in the entire First Army that succeeded in movement from 1-3 October 1918 was the 77th Division in the Argonne forest. Elements of the 77th Division conducted an attack on 2 October 1918 and succeeded in penetrating 1,000 yards in the Argonne forest but were stopped by German reinforcements.¹¹⁶ From 1-3 October, Liggett pulled the 35th Division from the front lines and replaced it with the 1st Division, which had been transferred from the Third Corps. The 35th Division became the corps reserve for the second phase of the campaign. The 92nd Division was transferred to the First Army reserve force.¹¹⁷

The actions of the First Corps in the first phase of the Meuse-Argonne campaign were very successful. Liggett's planning and battlefield actions were successful due to the structure of the corps formation and the personal leadership of Liggett. The corps structure allowed Liggett the capability to be flexible in his plan and offered him a freedom of maneuver that made him successful on the battlefield. The four divisions and other combined arms that Liggett commanded gave him the ability to conduct simultaneous operations along the front and in depth. Liggett conducted a simultaneous attack with three divisions abreast. Each division had objectives that supported the overall corps objectives and prevented the enemy from massing their forces at any given point. Liggett's artillery and aviation units attacked the support areas of the German forces and prevented them from reinforcing the front lines or from pulling their forces off the front line.¹¹⁸ The simultaneous attacks along the front and rear of the German lines allowed Liggett to achieve his objectives during the first day of battle.¹¹⁹

The structure of the corps gave the First Corps the ability to have operational reach. The logistical trains associated with the corps were robust and able to support the corps for extended

¹¹⁶ Thomas, *The History of the AEF*, 261.

¹¹⁷ Ibid., 84.

¹¹⁸ Viereck, *As They Saw Us*, 239.

¹¹⁹ Liggett, *Commanding an American Army*, 80.

operations. This gave Liggett the ability to assault three divisions at the same time while the fourth was conducting reserve operations.¹²⁰ The assault of the 77th, 28th, and 35th Division were supported by internal artillery along with the corps artillery allowing for the employment of long range weapon systems that allowed freedom of maneuver and suppression of enemy artillery positions. Liggett also used the 92nd Division in reserve which gave him the flexibility to reinforce success and prevent a premature culmination before the corps could reach its objectives. The corps structure allowed Liggett to calculate his risk of the mission and plan accordingly with three divisions abreast instead of two. Finally, the structure of the corps allowed Liggett to transition from offense to defense rather quickly due to the units he kept out of the fight. When the First Army was ordered to consolidate and reorganize, Liggett was able to replace the 35th Division with the 1st Division, which had been transferred from Third Corps. Liggett still had the 35th Division as a reserve force capable of stopping an enemy counterattack.¹²¹

Although the First Corps was successful in achieving some of their objectives, they failed in achieving the overall First Army objective of reaching the Hindenburg line. First Corps had to deal with thick forests, four divisions of German reinforcements, and extended logistical trains that were constrained by limited road infrastructure.¹²² Although these issues caused significant problems for First Corps, another important factor that needs to be addressed is the way that Liggett fought his corps. Unlike the campaign in the Meuse-Argonne, First Corps fought with three divisions forward and only one in reserve.¹²³ Fighting in this manner violated the design of

¹²⁰ Ibid., 81.

¹²¹ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 212.

¹²² Center of Military History United States Army, *American Armies and Battlefields in Europe*, 175-177.

¹²³ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 212.

the corps structure which called for two divisions to fight while having two divisions in reserve. The result of this decision not to fight the corps in the way that it was designed was that First Corps culminated before it was able to reach the First Army objective. Liggett only had one division to replace his culminated divisions and could not receive additional divisions from the First Army reserve in time to continue the attack against the German front line. It took from 1 October through 3 October for First Corps to receive and replace the 35th Division with elements of the 1st Division and put the 35th Division in reserve to continue the fight on 4 October 1918.¹²⁴ The failure to have adequate divisions to replace the fighting divisions forced First Corps to culminate and fail to achieve the First Army objective of the Hindenburg line.

Meuse-Argonne Campaign: American Third Corps

The American Third Corps (commanded by Major General Robert Bullard) was located on the right flank of the First Army and was responsible to cover the left flank of the American Fifth Corps. The Third Corps was also responsible to prevent German forces from crossing Meuse River.¹²⁵ Third Corps was comprised of four divisions. These divisions from right to left were the 33rd Division, the 80th Division, and the 4th Division with the 3rd Division held in reserve to exploit success in the attack.¹²⁶

On 26 September 1918, Bullard concentrated his artillery on the first three German trench positions along his front to suppress the German infantry. Bullard focused his large caliber cannons on the heights east of the Meuse River to silence the enemy artillery emplacements that

¹²⁴ Ibid.

¹²⁵ Robert L. Bullard, *Personalities and Reminiscences of the War* (Garden City: Doubleday, Page & Company, 1925), 267-268.

¹²⁶ Robert L. Bullard, *American Soldiers Also Fought* (New York: Longmans, Green and Co., 1936), 93.

could observe the corps movements below.¹²⁷ The main objectives for the First Corps were to seize the Hindenburg line and to establish defensive positions along the Meuse River to protect the right flank of First Army.¹²⁸ By the end of 26 September 1918, the 4th Division had advanced five miles, captured the town of Septsarges, and pushed one mile passed the Montfaucon strongpoint. The 80th Division advanced five miles and established defensive positions along the Meuse River about one mile short of the Hindenburg line. 33rd Division secured the bridge across the Meuse River near the town of Consenvoye and secured the left bank of the Meuse River.¹²⁹ From 27-30 September 1918, Third Corps continued their attacks along the front lines but the attacks slowed as American forces ran into German counterattacks and reinforcements that were not caught by surprise and had time to prepare their defenses.¹³⁰ Elements of the 33rd Division achieved their army objectives of securing the right flank. The 80th Division tried several times from the 27-30 to continue their advance, but were pushed back by a strong German counterattack on 28 September and from strong prepared fighting positions. The 4th Division had to halt their advance by 28 September 1918 due to elements of the Fifth Corps falling behind and an exposed left flank. The 4th Division fell into similar circumstances as the 80th Division and was no longer able to conduct attacks past 30 September. By the end of 30 September 1918, the Third Corps had advanced over seven mile past their start point, but failed to achieve the First Army objectives of advancing ten miles towards the Hindenburg line. The enemy resistance along the entire front forced the First Army to conduct a halt in order to reorganize and

¹²⁷ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 173.

¹²⁸ 3rd Army Corps A.E.F., *Field Order No. 18* (Leavenworth: CGSC library, 1932), 1.

¹²⁹ Bullard, *Personalities and Reminiscences of the War*, 269.

¹³⁰ Ibid.

consolidate their forces.¹³¹ From 1-3 October, Bullard reorganized his front lines and moved elements of the 80th Division to the left of the 4th Division. The 4th Division had received heavy casualties in the first phase of battle and needed to change sectors in order to reorganize for later offensives.¹³²

The actions of the Third Corps in the first phase of the Meuse-Argonne campaign were very successful. Bullard's planning and battlefield actions were successful due to the structure of the corps formation and his leadership skills. The flexibility of the corps structure gave Bullard the capabilities to use logical lines of operations for his combat operations. Bullard's logistical base allowed him to attack with three divisions on line and also support a fourth division in reserve. Bullard was able to focus the entire corps at the decisive points along his lines of operations to defeat the German forces and achieve his objectives.¹³³ Although Bullard did not reach his ultimate objective of the Hindenburg line, this was due to orders given by the First Army to halt for six hour after the first day of battle. These crucial hours allowed the Germans to organize their defenses and reinforce the front lines.¹³⁴

The structure of the corps also gave Bullard the ability to have simultaneity and depth along the battlefield. Bullard was able to use artillery and aviation assets to strike at the enemy's rear echelon areas and cause confusion along the front lines. German infantry forces were not able to retreat and German artillery was destroyed.¹³⁵ Bullard also attacked with three divisions on line and prevented the enemy from concentrating on one unit. The combination of combined arms and strikes on the enemy's front and rear echelon areas paralyzed the German forces and

¹³¹ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 176.

¹³² Bullard, *Personalities and Reminiscences of the War*, 276.

¹³³ Ibid., 269-272.

¹³⁴ Bullard, *American Soldiers Also Fought*, 94.

¹³⁵ Viereck, *As They Saw Us*, 239.

allowed Bullard's forces to penetrate five miles past the initial German defenses.¹³⁶ Bullard's corps also had operational reach. Bullard's engineers built road structures behind the front lines which allowed the logistical forces to support combat operations. These supplies allowed Bullard to continue attacking with three infantry divisions and prevented Bullard's forces from culminating. Bullard's artillery and aviation assets allowed him to attack into the enemy's rear area and prevent the enemy from massing their forces in front of Bullard's advancing Third Corps.¹³⁷ Bullard also used the 3rd Division as a reserve force which gave him the flexibility to reinforce success, prevent culmination, or stop any German counterattacks in his sector. When the First Army was ordered to consolidate and reorganize, Bullard was able to move elements of the 80th Division to relieve the left flank of the 4th Division. This reorganization of forces prevented Bullard's Third Corps from culminating in the upcoming offensive.¹³⁸

As with the First Corps, Bullard choose to fight his corps with three divisions forward and one in reserve. Five days of hard fighting pushed the 4th and the 80th Divisions to their culmination point. German counterattacks and strong defensive positions cause both divisions to take casualties and were unable to continue offensive operations. Due to the severity of casualties of the Fifth Corps, Bullard's reserve force (the 3rd Division) was reassigned to Fifth Corps on 29 September 1918.¹³⁹ This left Bullard with no reserve force and he was unable to conduct further offensive operations.¹⁴⁰ Bullard requested reserve forces from First Army, but they were too far

¹³⁶ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 173-175.

¹³⁷ Bullard, *Personalities and Reminiscences of the War*, 271-272.

¹³⁸ *Ibid.*, 274.

¹³⁹ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 252.

¹⁴⁰ Bullard, *American Soldiers Also Fought*, 98.

in the rear to reach Third Corps in time to continue offensive operations. The result was that Third Corps failed to secure the First Army objective of the Hindenburg line.

Meuse-Argonne Campaign: American Fifth Corps

The American Fifth Corps (commanded by Major General George Cameron) was located in the center of the First Army and was the main effort for the first phase of the Meuse-Argonne campaign.¹⁴¹ The Fifth Corps was comprised of four divisions. These divisions from right to left were the 79th Division, the 37th Division, and the 91st Division with the 32nd Division held as a corps reserve.¹⁴²

On 26 September, Cameron concentrated his corps and division artillery on the Montfaucon strongpoint and the German defenses in front of the town. The Fifth Corps was responsible for reducing the German strongpoint at Montfaucon and seizing the German defenses at the Hindenburg line.¹⁴³ By the end of 26 September 1918, the 79th Division had advanced passed the first two German defensive positions but was stopped short of the Montfaucon strongpoint. The left units of the 37th Division advanced past the western side of the Montfaucon strongpoint to almost 5 miles past the start point while the right units of the 37th Division were held up due to the 79th Division's failure to seize Montfaucon. The 91st Division cleared the town of Cheppy with elements of the First Corps and pushed over six miles past the start point only three miles short of the Hindenburg line.¹⁴⁴ The morning of 27 September 1918, elements of the 79th Division took Montfaucon and spent the rest of the day destroying bypassed German forces. The 37th and the 91st continued their attack in their sectors but were stopped by strong German

¹⁴¹ Center of Military History United States Army, *American Armies and Battlefields in Europe*, 172.

¹⁴² US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 302.

¹⁴³ Harbord, *The American Army in France*, 438.

¹⁴⁴ Thomas, *The History of the AEF*, 244-246.

defenses. From 28-30 September 1918, Fifth Corps continued their attacks along the front lines, but were unable to penetrate any further along the German defensive positions. Strong German defenses and reinforcements repelled the attacks by Fifth Corps¹⁴⁵. By the end of 30 September 1918, Fifth Corps advanced almost seven miles past their start point, but failed to achieve the First Army objectives of advancing ten miles and seizing the Hindenburg line. Fifth Corps ran in to the German main line of resistance and was forced to halt.¹⁴⁶ Cameron's corps took heavy casualties in the first five days of combat operations. These casualties prevented Cameron from taking any further offensive actions from 1-3 October 1918. This tactical pause in battle allowed Cameron to consolidate and reorganize his forces. Cameron replaced the 79th and 37th Divisions with the 32nd and 3rd divisions respectively. The 79th and 37th were transferred to the First Army reserve and Cameron received the 42nd Division for his corps reserve.¹⁴⁷

The actions of the Fifth Corps during the first phase of the Meuse-Argonne were very successful. Cameron was able to accomplish most of his objectives due to his leadership skills and the organization of the corps despite the 91st and the 79th Divisions having no combat experience, and the 37th having spent only six weeks on the line.¹⁴⁸ The corps structure gave Cameron the ability to attack with simultaneity and depth. Cameron's artillery struck along the first three fighting positions along his front. His artillery reached from the Hindenburg line to the German's first defensive line in his sector. Every known German battery position was covered with Cameron's artillery fire. Cameron then attacked with three divisions on line towards the enemy. The concentration of artillery fire on the front and rear areas of the German positions plus the assault of three divisions paralyzed the German forces and Cameron's forces advanced

¹⁴⁵ Ibid., 255.

¹⁴⁶ Ibid., 257.

¹⁴⁷ Ibid., 260.

¹⁴⁸ Harbord, *The American Army in France*, 433.

past the first two lines of German defenses with relative ease by the end of 26 September 1918.¹⁴⁹ Although the 79th Division had difficulties taking the Montfaucon strongpoint, this was due to the size of the enemy force located in the town, the terrain in which the division had to fight, and the inexperience of the forces in battle.¹⁵⁰

The structure of the corps also gave Cameron the ability to avoid culmination on the battlefield. From the 26 to 30 September 1918, the 79th and the 37th Divisions ran into steep German opposition and took heavy casualties. By the end of 30 September 1918, these two divisions were close to culminating. Cameron was able to replace the 79th and the 37th Division with the 3rd and 32nd Divisions respectively. This action prevented the corps from culminating and gave Cameron the ability to continue the campaign when the order was given by First Army.¹⁵¹ Cameron's corps also had operational reach. Cameron was given priority of the road and train infrastructure that lay in its rear. Cameron was able to build up enough supplies and materials to allow for continuous operations along the front lines. The combat soldiers had the ammunition, food, and equipment replacements they needed in order to continuously fight from 26 September through 30 September.¹⁵² Cameron also kept his 32nd Division as a corps reserve which gave him the flexibility to exploit success, prevent German counterattacks from succeeding, or replace a division that had culminated. This action also increased the operational reach of the corps.

Cameron fought his corps with three divisions forward and one division in reserve. Cameron's corps arguably had the toughest mission to accomplish with reducing the Montfaucon strongpoint and attacking through dense forests and steep terrain. These factors caused

¹⁴⁹ Thomas, *The History of the AEF*, 243-244.

¹⁵⁰ Harbord, *The American Army in France*, 433.

¹⁵¹ Thomas, *The History of the AEF*, 260.

¹⁵² *Ibid.*, 254.

Cameron's divisions to take heavy casualties and they were not able to continue offensive operations past 29 September 1918. Although Cameron did have the 32nd Division in reserve to replace his culminated forces, Cameron needed an additional two divisions that would not arrive in time to be able to continue offensive operations. Cameron received the 3rd Division from Third Corps on 30 September 1918 and eventually the 1st Division from First Army on 07 October 1918.¹⁵³ Cameron was not able to receive the additional two divisions he needed to continue offensive operations earlier than 4 October 1918 due to the distance those divisions were from the front lines. Cameron failed to fight his corps with enough reserve forces capable of continuing the attack and thus failed to achieve the First Army objective of the Hindenburg line.

Conclusions

World War I ended on 11 November 1918 with the signing of an armistice between the Allied and Central Powers. The American Expeditionary Force provided the needed edge that the Allies needed in order to defeat Germany and end the war.¹⁵⁴ There are many lessons to be learned by the efforts taken by the key leaders in the American Army to develop and build a modern industrial army. The key lessons that need to be analyzed are the methods that were used by General Pershing.

General Pershing understood the need for different levels of command and control structures that would be able to control the one to three million man army that he was to command in Europe. He understood the importance of the corps formation, its ability to conduct campaign operations and its ability to independently operate in a theater of war. The corps structure, developed by Pershing, is based off of the lessons learned by the French and British

¹⁵³ US Army War College, *Order of Battle of the United States Land Forces in the World War: American Expeditionary Forces*, 304.

¹⁵⁴ Bruce, *A Fraternity of Arms*, 286.

forces during the first years of WWI and based off of the ability of America as a whole to furnish a fighting army.¹⁵⁵ Pershing envisioned a corps that was capable of independent operations and capable of sustaining prolonged combat operations. Pershing created large infantry divisions and gave the corps formation other assets such as artillery units, logistical capabilities, and communication units to be able to sustain combat operations.¹⁵⁶

Although General Pershing did not understand operational art as it is understood today, there were theories of the art of war that were very similar to today's theories. Pershing was taught these theories of war while a cadet at the military academy and taught these theories while an instructor at the United States Military Academy (USMA). The art of war for the late nineteenth and early twentieth century included topics such as lines of operation, direct/indirect approach, and decisive points were in the back of Pershing's mind as he developed the structure of the corps.¹⁵⁷ The art of war, as understood in the early twentieth century, influenced Pershing vision of the corps. The result was that the corps formation allowed commanders flexibility, concentrated firepower, improved logistics, and increased command and control capabilities. These qualities allowed the corps commanders to exercise the elements of the art of war and win the campaigns on the western front.

Corps commander such as Liggett and Dickman used simultaneity and depth to achieve victories in the Saint Mihiel salient. Liggett, Bullard, and Cameron used their robust logistical capabilities in the Meuse-Argonne to create operational reach and prevent culmination by rotating forces off the front lines for fresh troops.¹⁵⁸ The corps structure gave these commanders the ability to use operational art to masterfully command their corps and achieve successes in the two

¹⁵⁵ Pershing, "General Organization Project," 93.

¹⁵⁶ Ibid., 97.

¹⁵⁷ James Mercur, *Elements of the Art of War 3rd ed.* (New York: John Wiley & Sons, 1894), 17.

¹⁵⁸ Thomas, *The History of the AEF*, 260.

major campaign in which the AEF fought as a whole. In the Saint Mihiel campaign, Liggett and Dickman were able to fight their corps as they were designed. They fought in the box method with the capacity to replace the front fighting force with reserve units to continue the fight. The result was that the salient at Saint Mihiel was reduced and Liggett and Dickman were able to achieve their army objectives. Although Liggett, Bullard, and Cameron were successful in the Meuse-Argonne campaign, they were not able to fight their corps as designed. These commanders fought their corps with three divisions up front and only one division in reserve. The remainders of the reserve forces were under First Army command. The result was that the corps culminated before they could reach their intended objectives in the first phase of the campaign. It is worthwhile to note that fighting a unit in a manner that it was not intended for can reduce the capability of that fighting force.

Today the American Army is going through constant change as we focus on our current fights in Afghanistan and Iraq while still trying to create a force structure that focuses on the future threats that tomorrow brings. There are many similarities between the situations faced by the army of 1917 and the army of 2011. The army of 1917 had been fighting irregular warfare before WWI and had not experienced major combat operations since the Spanish American War. It needed to mobilize a vast number of recruits, supplies, and equipment in order to be effective on the modern industrial battlefield. Finally, the army of 1917 had to update its doctrine to be effective on the battlefields of Europe. The army of 2011 has also been fighting irregular warfare for almost eleven years and not experienced major combat operations since 2003. If the army had to fight a near peer competitor, the army would also need to mobilize a vast number of recruits, supplies, and equipment in order to be effective on the modern battlefield. Finally, the army of 2011 is in the process of changing its doctrine. Much of current doctrine focuses on the asymmetrical battlefield and has lost touch with major combat operations. The army of 2011 would face many of the same challenges faced by the army of 1917 if it had to fight a peer competitor on the modern battlefields of today.

The processes that were developed by General Pershing and Colonel Baker to create the corps and other formations should not be forgotten. General Pershing and his teams learned from the mistakes of other nations, focused on the industrial capabilities of America, and focused on the elements of operational art to create a flexible force capable of winning on the battlefields of Europe. In order to achieve success on the future battlefield, the American Army must also realize these aspects and tailor their future force structure to be successful on the future battlefields across the globe.

ILLUSTRATIONS

Figure 1. Infantry Division, 8 August 1917

Source: John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades* (Washington: Center of Military History, US Army, 1998), 56.

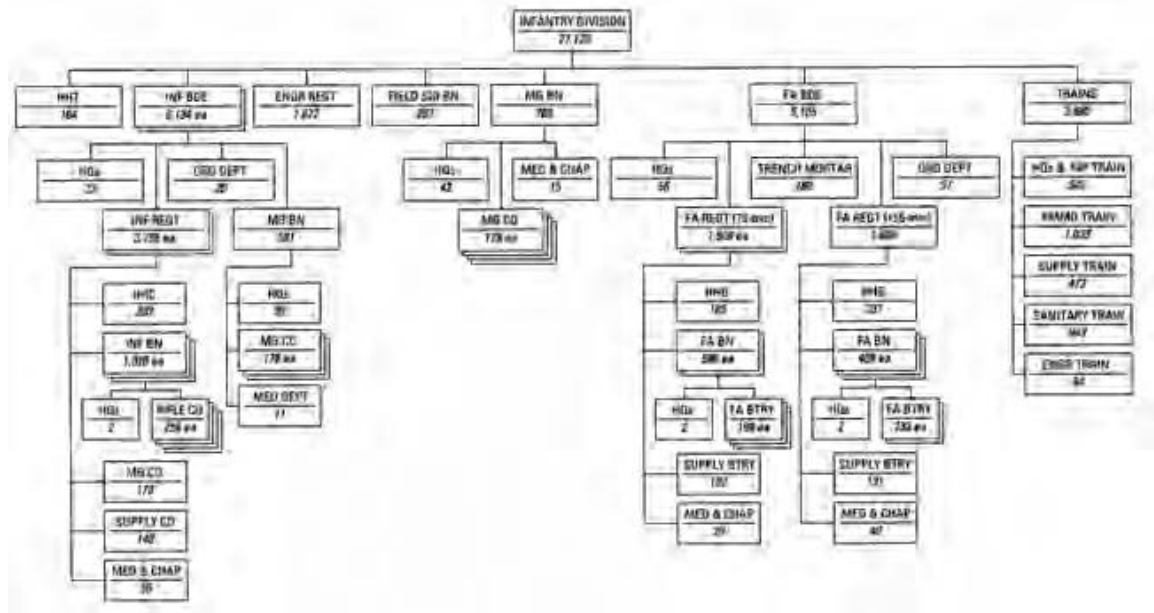
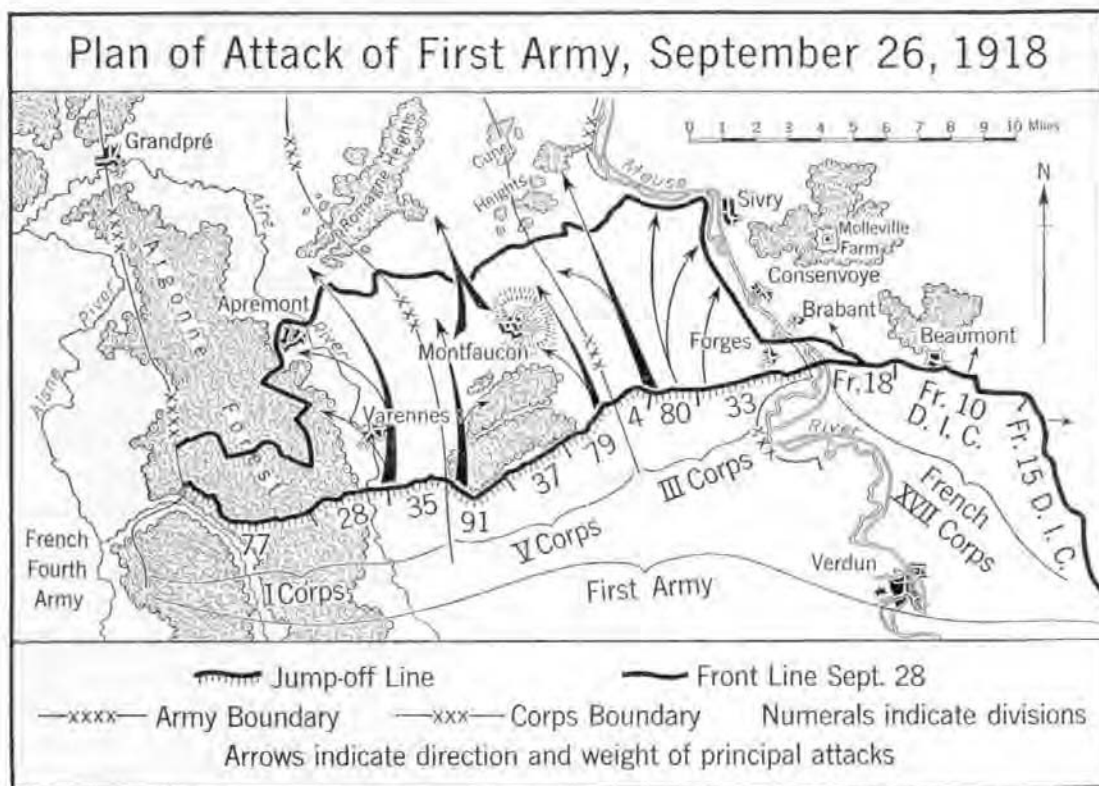


Figure 2. Saint Mihiel Salient Plan of attack

Source: Center of Military History United States Army, *American Armies and Battlefields in Europe* (Washington D.C.: US Government Printing Office, 1931), 109.



Source: Laurence Stallings, *The Doughboys, The Story of the AEF, 1917-1918* (New York: Harper and Row, 1963), 209.



Figure 4. Meuse Argonne Offensive, September-November 1918

Source: <http://www.dean.usma.edu/history/web03/atlas/WWorldWarOne/WWOneJPG/WWOne22.jpg>

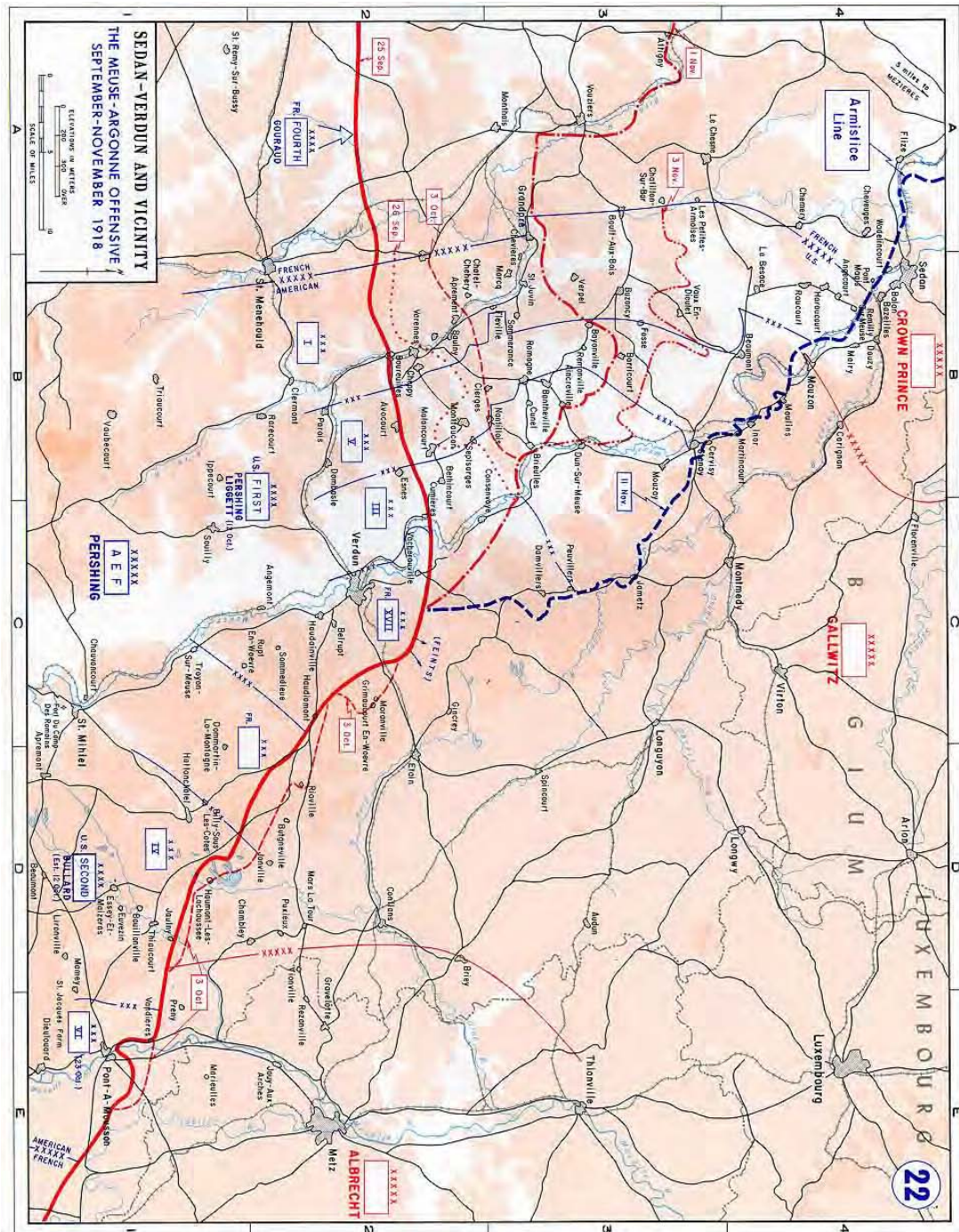


Figure 5. Meuse-Argonne plan of attack, 26 September 1918

Source: Center of Military History United States Army, *American Armies and Battlefields in Europe* (Washington D.C.: US Government Printing Office, 1931), 172.

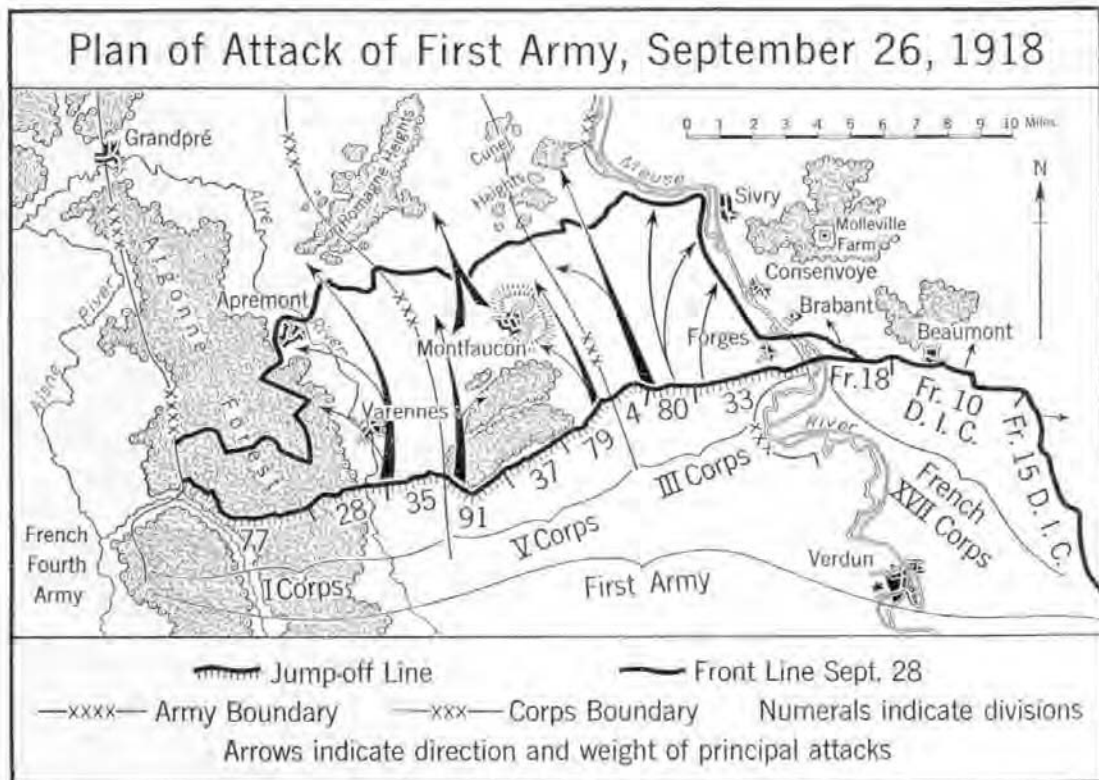
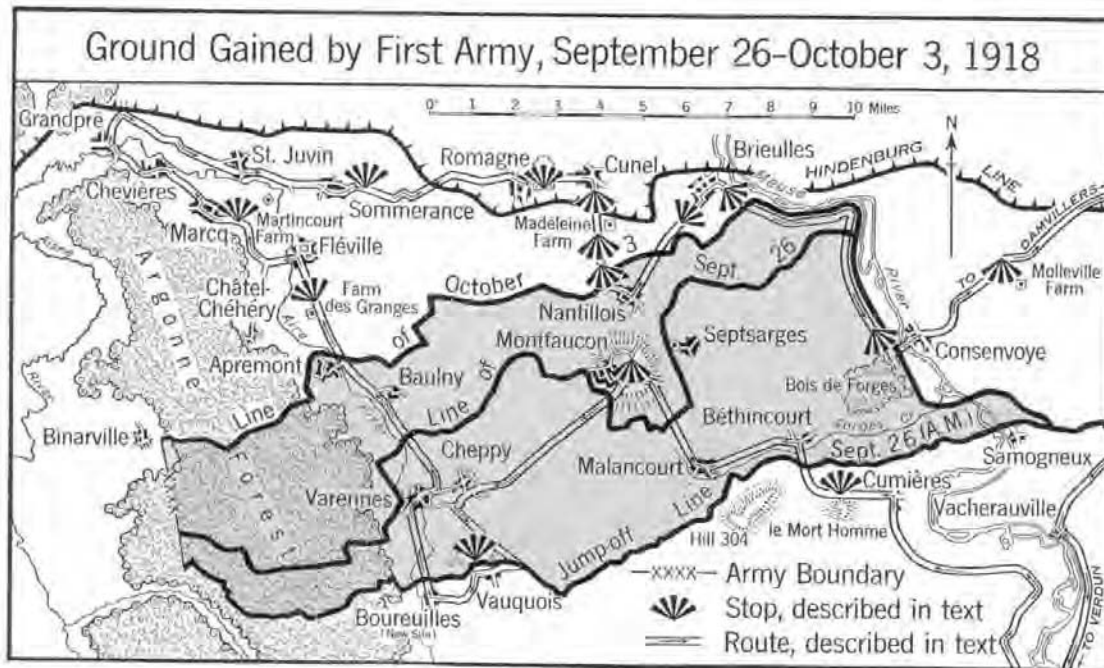


Figure 6. Meuse-Argonne attack, 26 September through 3 October 1918
Source: Center of Military History United States Army, *American Armies and Battlefields in Europe* (Washington D.C.: US Government Printing Office, 1931), 175.



APPENDIX

Appendix A: Elements of Operational Art

- End State and conditions:
 - The end state is a desired future condition represented by the expressed conditions that the commander wants to exist when an operation ends.
- Centers of Gravity:
 - A *center of gravity* is the source of power that provides moral or physical strength, freedom of action, or will to act.
- Direct or Indirect Approach:
 - The *approach* is the manner in which a commander contends with a center of gravity.
 - The *direct approach* is the manner in which a commander attacks the enemy's center of gravity or principal strength by applying combat power directly against it.
 - The *indirect approach* is the manner in which a commander attacks the enemy's center of gravity by applying combat power against a series of decisive points while avoiding enemy strength.
- Decisive Points:
 - A *decisive point* is a geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success.
- Lines of operations/Effort:
 - A *line of operations* is a line that defines the directional orientation of a force in time and space in relation to the enemy and links the force with its base of operations and objectives.

- *A line of effort* is a line that links multiple tasks and missions using the logic of purpose—cause and effect—to focus efforts toward establishing operational and strategic conditions.
- Operational Reach:
 - *Operational reach* is the distance and duration across which a unit can successfully employ military capabilities.
- Tempo:
 - *Tempo* is the relative speed and rhythm of military operations over time with respect to the enemy.
- Simultaneity and Depth:
 - *Simultaneous* combinations of offensive, defensive, and stability tasks overwhelm enemy forces and their will to resist while setting the conditions for a lasting, stable peace. Simultaneous actions across the depth of the operational area place more demands on enemy forces than enemy forces can effectively respond to them.
 - *Depth* is the extension of operations in time, space, and resources.
- Phasing and Transition:
 - A *phase* is a planning and execution tool used to divide an operation in duration or activity. A change in phase usually involves a change of mission, task organization, or rules of engagement. Phasing helps in planning and controlling and may be indicated by time, distance, terrain, or an event.
 - *Transitions* mark a change of focus between phases or between the ongoing operation and execution of a branch or sequel.
- Culmination:

- o The *culminating point* is that point in time and space at which a force no longer possesses the capability to continue its current form of operations.
- Risk:
 - o *Risk*, uncertainty, and chance are inherent in all military operations. When commanders accept risk, they create opportunities to seize, retain, and exploit the initiative and achieve decisive results. Risk is a potent catalyst that fuels opportunity.

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