

**LEARNING LESSONS**  
+ IN THE +  
**AMERICAN**  
**EXPEDITIONARY FORCES**



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Center of Military History**

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## FOREWORD

If history has shown anything, it has underlined both the importance and difficulty of preparing for the unexpected. A trained and ready Army must possess a sound doctrine, competent leaders, and effective, rugged equipment. Just as important to success is the Army's capacity to change. It must be able to rapidly adapt existing organizations, tactics, techniques, and procedures to meet the demands of emerging situations. How our military leaders did just that in the past is the subject of this focused essay.

World War I—"The Great War"—was no less of a contingency operation than the many smaller overseas missions that the U.S. Army has undertaken over the past decade. While the general nature of that earlier conflict was well known to the U.S. Army's leaders prior to the deployment of the American Expeditionary Forces (AEF) to Europe in 1917, many of the specifics involved with raising a force that could fight effectively in the harsh trench warfare environment of that period were not. In fact, the small size of America's prewar Army and the desperate need of its European allies for fighting forces meant that large numbers of U.S. Army troops entered combat with minimal preparation for the task at hand. The ability of American units and their commanders to identify problems and correct them in a systematic fashion thus became critical to the AEF's growing effectiveness and ultimate success on the battlefield.

As we commemorate the eightieth anniversary of this nation's involvement in World War I, it is entirely appropriate to recall our earlier experience to determine what might be relevant today. The "intellectual fieldcraft" that served the AEF so well during World War I remains a vital part of our heritage, one that ultimately led to the establishment of the Center for Army Lessons Learned (CALL). Similarly, the Army's postwar attempt to generalize from that earlier experi-

ence—always a more difficult chore—also contains lessons for those seeking answers to the future from our most recent efforts in Asia, Africa, Latin America, and Southeastern Europe. We are pleased to offer this study, as we feel it may prove useful to those currently grappling with change throughout the Army.

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Chief of Military History

Learning Lessons  
in the  
American Expeditionary Forces





World War I—called the “Great War” until the world learned that there would be more than one such war in the twentieth century—was the first total war of the modern period. The participants, unprepared for the long and bloody conflict that ensued after the summer of 1914, scrambled to mobilize their manpower and industry to prosecute the war. All searched for a decisive military victory. Instead, dramatic and largely unforeseen changes in warfare quickly followed one another, in the end altering both Europe and the larger Western culture that it represented. Although the bloody conflict finally ended with an armistice in November 1918, it cast a long politico-military shadow over the decades that followed.

When the United States entered the war in 1917, it was participating in a major conflict for only the second time, and the repercussions of that experience would have a deep and lasting influence on the American military establishment. To even take part in the struggle, the tiny prewar American Army, which the German General Staff evaluated as barely an army at all, had the greatest imaginable hurdles to overcome. Many Regular Army officers—captains and higher—had some experience fighting insurrectionists in the jungles of the Philippine Islands, but had little other firsthand knowledge of combat. Nevertheless, they had to transform the Army as rapidly as possible from its traditional mix of regulars and locally raised militia into a mass army of millions and to learn the techniques of modern warfare at the same time. That the Army was able to do this and prevail over its foes at such places as Cantigny, Chateau-Thierry, the Aisne-Marne, and the Meuse-Argonne in 1918 was a remarkable achievement. This successful transformation came about largely because the American Expeditionary Forces (AEF) had consciously set out to learn all it could from the experiences of its allies and enemies and to analyze and profit from its own successes and failures.



Yet many of the lessons that American fighting men bought in blood on the battlefields of Europe were quickly forgotten by the postwar civil and military institutions of the United States. No official history of the war was ever written, and the United States made little attempt to codify or institutionalize the experiences of that great conflict. To many Americans, the larger lesson of the Great War was to avoid future entanglements in such overseas quarrels, a judgment that manifested itself in the interwar policy of isolationism. Similarly, the overwhelming military lesson of the Great War was that, when needed, the United States could raise, equip, train, and deploy an army overseas that could win any conflict. Peacetime preparedness was an unnecessary expense. That belief persisted for the two decades following the 1918 armistice. The next generation would pay dearly—at such places as Bataan, the Kasserine Pass, and Guadalcanal—for such historical mythology.

How a nation and its military use history and the experiences of the past to chart the future in war and peace constitutes a significant subject for the military professional in any age. Many observers have been decidedly pessimistic regarding mankind's ability to learn from history—George Bernard Shaw said, “Alas! Hegel was right when he said that we learn from history that men never learn anything from history.” It seems more helpful, however, to heed the sage notion that “History gives us a kind of chart, and we dare not surrender even a small rushlight in the darkness. The hasty reformer who does not remember the past will find himself condemned to repeat it.”<sup>1</sup>

Many historians dislike drawing “lessons” from history for good reason. Some have outlined the perils of using historical “lessons” in guiding activities such as the conduct of foreign policy. Trevelyan commented, “‘History repeats itself’ and ‘History never repeats itself’ are about equally true. . . . We never know enough about the infinitely complex circumstances of any past event to prophesy the future by analogy.”<sup>2</sup> Too often sentient beings have made flawed use of their own or others' experiences; misguided applications of the past range from Mark Twain's cat that learned never to sit on a stove, hot or cold, to statesmen who confused Seoul and Saigon with Munich. Nonetheless, when the lessons drawn from experience are limited to, as Mark Twain put it, “only the wisdom that is there,” such as the techniques of tactics and administration of military units, the lessons can be helpful and accurate. When they are broader and

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<sup>1</sup>George Bernard Shaw, introduction to *Heartbreak House*; John Buchan, general introduction to *The Nations of Today* (1923).

<sup>2</sup>Quote from Laurence J. Peter, *Peter's Quotations: Ideas for Our Time* (New York: Bantam, 1977), p. 245.

deal with the philosophical ramifications of war and peace, they are more likely to suffer from the difficulties that Trevelyan noted.

In the military, and especially among those with formal training in history, there is often skepticism about lessons from history as well. This grows out of the tendency of some professional soldiers who have little formal training in history to consider the study of military history as much the same sort of utilitarian undertaking as a housewife collecting recipes—when one has a good collection of historical analogies, all the practitioner has to do is to run through his file until he has the right menu of solutions to his problems. It is hard to convince some that one studies history to sharpen judgment and, in the words of the aphorism, “make one wise for all time instead of merely smart for next time.”

The case of the American Expeditionary Forces in World War I provides three perspectives on how that force drew lessons from experience. First, it absorbed experiences that the French and British provided in training the AEF in camps near the battlefields. Not all these experiences were equally relevant to the war as it had evolved by the time the Americans arrived in Europe, so Pershing and his staff had to be discriminating in determining which lessons to draw from these vicarious experiences. Second were the lessons that the soldiers of the AEF drew from their own experiences in the war and used to adjust their weapons and tactics. The organization quickly disseminated these lessons throughout the command, and predictably they became its most important and lasting lessons. Finally, there are the larger lessons that the U.S. Army took from the war in forming a postwar army. At least partly because this last instance is clearly a case of drawing lessons from experiences in one set of circumstances and applying them in a different context, this use of lessons from experience was the most problematical.



General John J. Pershing, the commander of the newly designated American Expeditionary Forces, arrived in Paris in June 1917, two months after the United States entered the war. Troops of the American 1st Division began debarking at St. Nazaire by the end of the month. The French cheered both events, but it was clear to any casual observer that the Americans would need more than their abundant enthusiasm to make a contribution to the war. The soldiers were an untrained organization which, in Capt. George Marshall's words, “hadn't even been trained in squads left and squads right.” He recalled one rangy backwoodsman standing sentry duty with his blouse unbuttoned when a senior and meticulously turned out French officer asked him a question about his

rifle. The soldier handed the bemused officer his weapon and sat down to roll a cigarette. Among French veterans, such incidents created a lasting impression of Americans as energetic but bumbling amateurs.<sup>3</sup>

The French and British had been in the war for three long years by the time the Americans arrived on the Continent. They had slowly but inexorably absorbed the harsh lessons of the terrible refinements of modern weaponry. They had begun the war with the enthusiasm that they now saw in the Americans, and they had seen it dashed by the realities of the trenches and the heavy artillery and the airplanes and the losses of the monstrous meat-grinder battles of Verdun and the Somme and countless lesser actions. The senior officers of the Allied armies saw clearly that the Americans were largely untrained civilians in uniform who would require months of drill and training before they were ready to go into the line against the Central Powers. It seemed obvious to them that the most efficient way to use the fresh troops from across the Atlantic would be to train them with Allied instructors and put them into the trenches with British and French units that could shepherd them through their encounters with the Germans.

Pershing, however, envisioned a different role for his force than that of the Allies. He felt that the solution to the long stalemate that had developed by the time the United States entered the war was to reestablish maneuver on the battlefield. This meant that the AEF would have to avoid embracing the trench warfare mentality of the Allies and train and fight using what he termed “open warfare.” At the same time, he felt it imperative that the Americans have their own sector where the entire AEF would be employed as an integral military force, rather than be amalgamated with the British and French forces. To the Allies, this was an anathema from the beginning. Nevertheless, the iron-willed American commander prevailed over all of the arguments, cajoling, and threats from the military and civilian leadership of the Allies. He employed the AEF in a sector of its own, using tactics that emphasized the spirit of the offensive and individual marksmanship.



Professionals in the Army were attempting to draw lessons from the war in Europe even before their nation entered the war. Articles in the professional journals and the periodicals that served military audiences dealt with ramifications of the war from the time of its outbreak in 1914.

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<sup>3</sup>Forrest C. Pogue, *George C. Marshall: Education of a General, 1880-1939* (New York: Viking, 1963), pp. 145-47.



*"Soldiers on a Hill With Damaged Building in the Background" by J. Andre Smith (Army Art Collection)*

The most prominent example was the Army and Navy Journal, which many officers read. During the war years it published a trove of detailed information on happenings on all fronts. It carried analytical pieces on tactical and technological developments, and professional debates raged

in its letters columns.<sup>4</sup> On a more official level, the Army published translations of documents dealing with developments in warfare and distributed them to staffs and units in the Army. These included such items as accounts of infantry fighting in the Russo-Japanese War and the German *Drill Regulations for the Infantry*.<sup>5</sup>

The Army had deployed units on the Mexican border beginning in 1913, thereby gaining some experience in mobile operations. In addition, the national preparedness movement that surged with the outbreak of the European war pushed the military services to begin learning the tactics and techniques of modern warfare. The Mexican Punitive Expedition was not an experience to give observers confidence in the Army's capabilities. Fifteen years later, Pershing wrote, for example, that "the very primitive state of our aviation [in the Mexican expedition] still gives me a feeling of humiliation."<sup>6</sup> In fact, the greatest contribution of the mobilization was to demonstrate forcefully the wretched state of American military preparedness. The National Guard was unprepared in terms of manpower, equipment, and training. Guard units lacked not only the equipment needed for combat—weapons and ammunition—but also the wherewithal to even subsist in the field—adequate tents, cots, blankets, and so forth. Nonetheless, the citizen-soldiers who spent a few months' service on the border had far more experience than those whose military background was limited to a few successive two-week summer encampments.<sup>7</sup>

Another movement toward preparedness was the so-called Plattsburg camp movement, which provided military training for civilians. Maj. Gen. Leonard Wood and former President Theodore Roosevelt promoted the idea of civilians learning military skills in peacetime summer encampments. After the sinking of the ocean liner *Lusitania* in May 1915, civilians—primarily businessmen and professionals—journeyed to

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<sup>4</sup>*Army and Navy Journal*, passim; all service journals were filled with articles about the war from the winter of 1914–1915 on. The issue of 14 December 1914 ran an advertisement in which an anonymous correspondent wrote that "owing to the President's order to Army and Navy officers it is the sole source—for a nation of 110 millions—of informing discussion as to military and naval operations in the European War."

<sup>5</sup>L. Z. Soloviev, *Actual Experiences in War: Battle Action of the Infantry; Impressions of a Company Commander*, War Department (WD) Doc. no. 279, 1906; *Drill Regulations for the Infantry, German Army*, WD Doc. no. 299, 1907.

<sup>6</sup>John J. Pershing, *My Experiences in the World War*, 2 vols. (New York: Frederick A. Stokes, 1931), 1:159.

<sup>7</sup>For the preparedness movement, see Russell F. Weigley, *History of the United States Army* (New York: Macmillan, 1967), ch. 15, "Preparedness: 1914–17." Edward M. Coffman has a colorful short description of the Mexican Campaign in *The War To End All Wars* (New York: Oxford, 1968), pp. 13ff.

Plattsburg, New York, for summer training in August. Costs were borne by private contributions, although Congress appropriated funds for the program in 1916. The movement was as important for the enthusiasm it raised on military themes as for the skills it taught its participants.<sup>8</sup>

When the United States actually entered the war in the spring of 1917, however, the War Department staff had made little progress in designing a formal training program for modern war. In his annual message for 1915, President Woodrow Wilson had called on the nation to hold itself aloof from involvement in the European war; additionally, military officers were enjoined from speaking out on the war in public. So long as the national policy was to avoid entanglement in the war, the congressionally mandated small staffs focused on the mundane but important details of mobilization and arguments over how the services could be expanded in the event of entering the war.

The challenges confronting the military staff were immense. In 1917 only nineteen officers comprised the War Department General Staff, a staff that would mushroom to over one thousand by the time of the armistice. The Army had few weapons beyond small arms that were similar to those combatants were using in Europe, and no personnel trained to use them. For the United States to make a timely contribution to the Allies in land warfare, it would have to accept weapons and training from them, at least in the beginning.



Pershing had few illusions about how much training his AEF would need. In critical subjects ranging from field hygiene and small unit tactics to the employment of machine guns and howitzers, all ranks were at best enthusiastic novices. Pershing considered training

the most important question that confronted us in the preparation of our forces of citizen soldiery for efficient service. . . . Few people can realize what a stupendous undertaking it was to teach these vast numbers their various duties when such a large percentage of them were ignorant of practically everything pertaining to the business of the soldier in war. First of all, most of the officer personnel available had little or no military experience, and had to be trained in the manifold duties of commanders. They had to learn the interior economy of their units—messing, housing, clothing, and, in general, caring for their men—as well as methods of instruction and the art of leading them in battle.<sup>9</sup>

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<sup>8</sup>Weigley, *History of the United States Army*, pp. 342–43; Coffman, *The War To End All Wars*, pp. 14–15.

<sup>9</sup>Pershing, *My Experiences in the World War*, 1:150.

Because of the magnitude of the task, Pershing felt that the G-3 of the AEF staff would be overwhelmed if given the responsibilities for both training and operations, in accordance with conventional doctrine. Thus he directed that a new staff officer, the G-5, take over responsibility for training. He chose as G-5 Lt. Col. Paul B. Malone, a 45-year-old member of the West Point class of 1894. A tactful and personable officer, Malone went about organizing the training of the AEF during the first months in Europe with dispatch and efficiency. In February of 1918, however, Pershing asked Malone where he would like to serve, and he replied, "At the fighting front." He was given command of an infantry brigade, which he led through the carnage of 1918, and amassed six awards for his heroism and leadership.<sup>10</sup>

Malone's replacement as the AEF's training officer was Lt. Col. Harold B. Fiske. Forty-six years old, Fiske had graduated in the middle of the West Point class of 1897. He was a quiet man of morose disposition who kept his own counsel and ran roughshod over the opinions of others. His piercing gaze through wire-rimmed glasses and the hard line of his mouth curving down at the corners made him appear critical of all he surveyed. He dismissed out of hand those officers who failed to meet his unyielding standards of ethical and tactical proficiency; nonetheless, he repaid the hardworking and competent officer with unmatched loyalty and professionalism.<sup>11</sup>

Fiske managed training with an iron grip, as one might expect: "The prominent characteristics of training in France were a definite system, policy, and doctrine somewhat rigidly and uniformly prescribed by the highest authority, and a constant followup by inspector-instructors."<sup>12</sup> He demanded strict compliance with the principles Pershing set for training the AEF. They included a rigorous emphasis on the offensive, a stress on the rifle and the bayonet, and inflexible standards of discipline—"the standards of the American Army will be those of West Point."<sup>13</sup> General Robert Lee Bullard, one of the most aggressive and hard-driving field commanders of the war, characterized Fiske's training as "the hardest, most uncompromising and intensive system of drill that the American Army has ever known or probably ever will know."<sup>14</sup>

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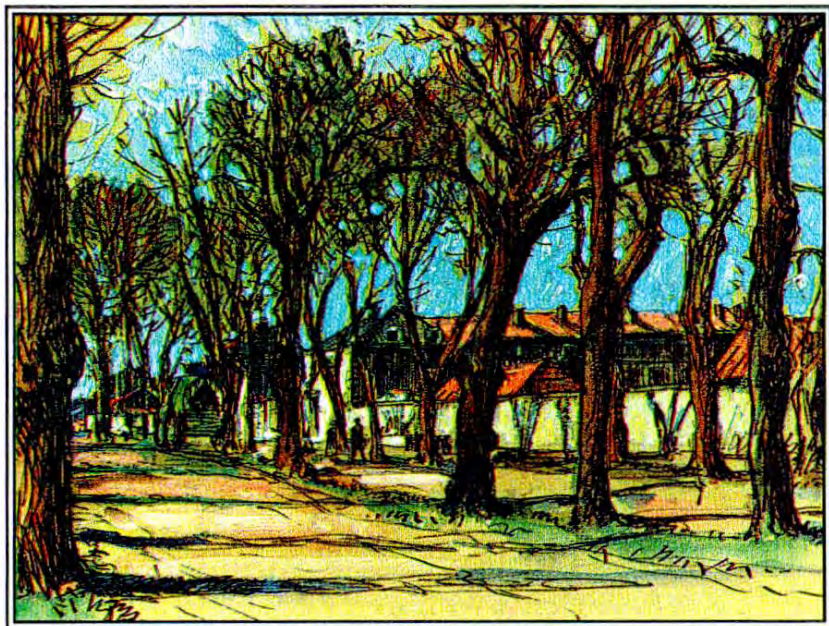
<sup>10</sup>Robert Lee Bullard, *Personalities and Reminiscences of the War* (Garden City, N.J.: Doubleday, Page, 1925), pp. 61ff; *Assembly 20* (Spring 1961): 78ff.

<sup>11</sup>*Assembly 20* (Spring 1961): 78ff.

<sup>12</sup>Harold B. Fiske, "Training in the AEF," n.d. [1919], in Harold B. Fiske Papers, Military History Institute (MHI), Carlisle Barracks, Pa.

<sup>13</sup>*Ibid.*; Fiske, "Training in the American Expeditionary Forces," lecture at the Army War College, 16 Jan 21, Fiske Papers, MHI.

<sup>14</sup>Bullard, *Personalities and Reminiscences of the War*, p. 62.



*“General Headquarters in Chaumont”* by J. Andre Smith (Army Art Collection)

The Training Section of the General Staff was charged with supervising the schools and the conduct of training; translating foreign manuals and preparing AEF training manuals “with incorporation of changes suggested by actual experiences”—lessons learned by another name—and training inspections. Training inspections included not only observing units in training but also inspecting those units in actual operations. Inspectors had free rein to accompany any unit, with the goal to have one training inspector for every division on line. The G-5 Section reported after the war that “in theory, what the Section tried to do was not to disturb any one in his work but to join the troops and simply observe.” This would place the observers “in an extraordinarily fine position for cool judgment as to what was happening and why.”<sup>15</sup>

It is easy to question just how effectively a colonel from AEF headquarters at Chaumont could “join the troops and simply observe” operations given Pershing’s reputation of relieving commanders for relatively minor infractions. General Bullard penned in his diary: “He is

<sup>15</sup>“Report of G-5 of GHQ, AEF,” 30 Jun 19, Fiske Papers, MHI.



looking for results. He intends to have them. He will sacrifice any man who does not bring them.”<sup>16</sup> When one reflects that the inspecting colonel would be working for Colonel Fiske at AEF headquarters, with his reputation for rigidly high standards, the situation becomes even more threatening. In the military experience of many soldiers, “in-house inspections”—which was described as “just between you and your boss and his boss”—have always been some of the most deadly. Nonetheless, in the AEF such inspections were effective at capturing both positive and negative aspects of operations, which then could be published for the edification of all.

There was little flexibility in Fiske’s approach to training, but with the task at hand there may have been little place for flexibility. Pershing’s chief of staff, Brig. Gen. James G. Harbord, said after the war that Fiske operated “with an efficiency that was not conducive to popularity with a raw command but was a great service for his country.”<sup>17</sup> In short, given the limited experience of the AEF’s officer and noncommissioned officer corps, a rigid program of indoctrination and training was an absolute necessity.

The most relevant and readily available lessons for the soldiers of the AEF to absorb were those of the Allies. Both the French and British offered to provide instructors for the Americans. Both had large school systems and training centers set up in safe areas behind the front where they trained both individuals and units. These included officer candidate schools as well as schools for enlisted men and specialists, and they offered to let soldiers from the AEF attend these courses. The schools adjusted their curricula as experiences at the front demonstrated new requirements. One American observer remarked that this allowed them to provide “courses in the latest methods and developments for officers.”<sup>18</sup> A particular feature of these schools was that they were close enough to the front that units could undergo instruction, be placed in a quiet sector of the line for battlefield experience, and then be returned to the rear to correct shortcomings observed at the front.<sup>19</sup>

The AEF quickly built up a large system of their own “corps schools” where they fashioned curricula of four to five weeks. About a third of a division’s officers and noncommissioned officers attended such classes prior

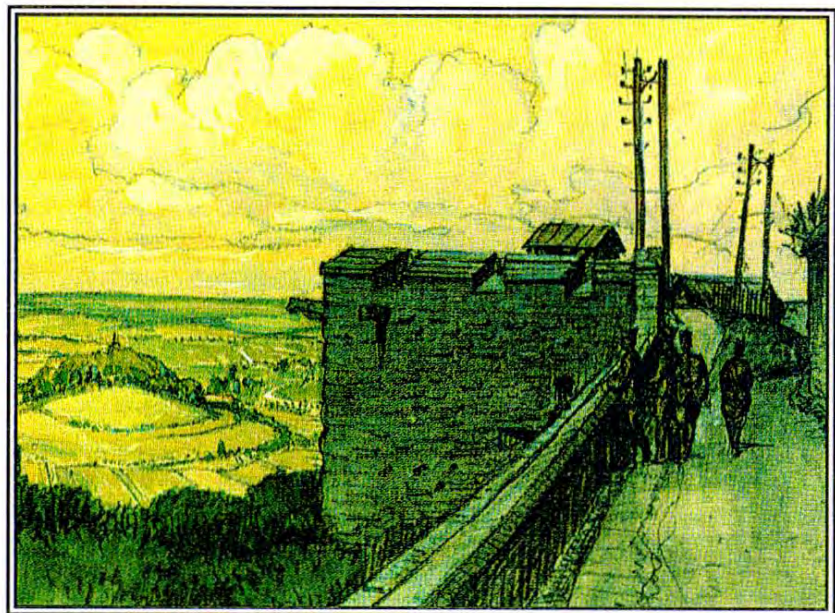
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<sup>16</sup>Bullard, quoted in Coffman, *The War To End All Wars*, p. 142.

<sup>17</sup>James G. Harbord, *The American Army in France, 1917–1918* (Boston: Little, Brown, 1936), p. 98, quoted in Dennis J. Vetock, *Lessons Learned: A History of U.S. Army Lesson Learning* (Carlisle Barracks, Pa.: U.S. Army Military History Institute, 1988), p. 46.

<sup>18</sup>Pogue, *Education of a General*, pp. 150–55; Ltr, Col George F. Baltzell to Harold B. Fiske, 15 Jan 32, Fiske Papers, MHI.

<sup>19</sup>Ltr, Baltzell to Fiske, 15 Jan 32, Fiske Papers, MHI.



*"The Walls of Langres" by J. Andre Smith (Army Art Collection)*

to the arrival of their divisions in Europe. Although selected graduates went on to attend the "Army School" or the General Staff College of the AEF at Langres, most returned to their units to train them as they arrived. Pershing described the importance of the schools after the war:

A school system would have been desirable in the best of armies, but it was indispensable in an army which had to be created almost wholly from raw material. The training of troops for combat was, of course, the primary objective, and schools for instructors were merely a means to that end.<sup>20</sup>

Unit training was as important as individual training. Ideally, units would spend about a month training in small unit tactics, weapons proficiency, and similar tasks. Then companies and sometimes battalions rotated into the trenches as part of a regiment on line. Finally, American divisions would reassemble for a month's training with all elements of the division before moving into line with a corps.<sup>21</sup>

<sup>20</sup>Pershing, *My Experiences in the World War*, 1:154.

<sup>21</sup>Don Smythe, *Pershing: General of the Armies* (Bloomington: Indiana University Press, 1986), p. 31.

The pace of the AEF units arriving in France by the summer of 1918, along with the press of the war during that crucial summer, meant that reality rarely conformed to the ideal. The 79th Division, for example, was one of sixteen created in the spring of 1917. Its draftees came from eastern Pennsylvania, Maryland, and the District of Columbia. The soldiers had received training at Camp Meade, Maryland, from October 1917 through May 1918. The advance party of the division departed for France toward the end of June 1918, and the rest of the division arrived in France by the first of August. But many of the soldiers had been called to the colors as late as the draft of June 1918 and had received virtually no instruction. In the words of the anonymous division historian,

The war was not waiting for anyone in those days of August, 1918. . . . It was the task of the Seventy-Ninth Division to learn much and learn quickly, for it was needed at the front. Rifle ranges were constructed and the men who had joined in the June draft had their first opportunity to receive instruction in musketry, to fire at various ranges and to become generally acquainted with their rifles. Specialists were selected and received individual instruction as automatic riflemen, carriers, rifle grenadiers, runners, bombers, and so forth. A Division Intelligence School . . . had a large attendance and trained the men who subsequently functioned in the intelligence detachments. . . . The machine gun battalions sent experts to the machine gun companies of the infantry to train them in handling the light Brownings, first of their kind to be used abroad. Maneuvers formed a large part of the instructions. Division terrain exercises were held weekly . . . to train . . . in the important work of liaison and combat.<sup>22</sup>

The Americans adopted a huge division organization consisting of more than 28,000 men and approximating the size of a French, British, or German corps. Although part of the argument for such a large organization was the shortage of trained American officers required for divisions, the primary rationale was tactical. In keeping with the demands of trench warfare, American military leaders believed that larger divisions would have greater staying power on the battlefield, lessening the need for rotation in battle and simplifying both the training of staffs and division support units and the overall conduct of defensive operations. General Harbord explained that

we sought to provide a division with sufficient overhead in the way of staff, communications, and supplies to permit the infantry and artillery to continue fighting for some time. With the deep and very powerful defense developed in the World War, no decisive stroke could be secured in battle without a penetration necessitating several days of steady fighting. It was thus reasoned that the infantry of the division must be of such strength as to permit it to continue in combat for such a

<sup>22</sup>J. Frank Barber, ed., *History of the Seventy-Ninth Division A.E.F. During the World War: 1917-1919* (Lancaster, Pa.: Steinman and Steinman, n.d.), pp. 17-46.

number of days that the continuity of battle would not be interrupted before decision was reached.<sup>23</sup>

At first all the schools and training areas used British and French instructors, but as soon as possible American instructors took over. From the beginning, American leaders noted several problems with Allied instructors. First, the British and French often did not agree on organization or tactics, and each sought to convince the leaders of the AEF that their methods were superior. The British stressed aggressive trench fighting with bayonet and grenade, while the French placed more emphasis on artillery and the machine gun.<sup>24</sup> The French instructors emphasized teaching through lectures, and the need to translate most of the lectures proved deadly boring and counterproductive in practice. The commanding general of the 1st Division observed:

Training in conjunction with French troops is slow and we have found that after one or two demonstrations by French organizations it is difficult to keep our soldiers interested. The principal assistance we can derive from the French or English will be from officers and specially selected noncommissioned officers of those armies acting as advisors and critics.<sup>25</sup>

In addition, many French and British trainers were psychologically tired and somewhat demoralized, and Pershing worried that their pessimism would infect his eager force. The French units taken from the line to train the AEF, in Pershing's words, were "worn and weary, [and] failed to set an example of the aggressiveness which we were striving to inculcate in our men."<sup>26</sup> Defeatism was a greater concern, and Americans noted it in both British and French ranks. One lieutenant remembered his experiences with Allied soldiers in the trenches:

Far from being determined to sell their lives or their sectors as dearly as possible, they were primarily interested only in survival, in holding their areas as cheaply as possible by being careful not to provoke "the Boche." They were "fed up." They had "had their noses full." It was highly disconcerting to a newly-arrived American officer to be told by his British host that, if the Germans wanted his part of France, they might well come and take it. He had had more than enough of it. Or to be reproached by a French officer for having prolonged a lost war by gratuitously intervening in it.<sup>27</sup>

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<sup>23</sup>Harbord, *The American Army in France*, p. 103.

<sup>24</sup>Pershing, *My Experiences in the World War*, 1:153.

<sup>25</sup>Frank Freidel, *Over There: The Story of America's First Great Overseas Crusade* (Boston: Little, Brown, 1964), p. 117.

<sup>26</sup>Pershing, *My Experiences in the World War*, 2:114.

<sup>27</sup>Freidel, *Over There*, p. 126.

But AEF leaders believed that the greatest shortcoming of the European instructors was their refusal to accept that the Americans had any valid conceptions on warfare. Pershing adamantly believed that only returning maneuver to the battlefield would bring success:

It was my opinion that the victory could not be won by the costly process of attrition, but it must be won by driving the enemy out into the open and engaging him in a war of movement. Instruction in this kind of warfare was based upon individual and group initiative, resourcefulness and tactical judgment, which were also of great advantage in trench warfare. Therefore, we took decided issue with the Allies and, without neglecting thorough preparation for trench fighting, undertook to train mainly for open combat, with the object from the start of vigorously forcing the offensive.<sup>28</sup>

General Harbord remembered Pershing's philosophy:

Some day someone somewhere would come out of his trenches and start forward, and thus a stalemate would be broken and the War would eventually be won. When even one soldier climbed out and moved to the front, the adventure for him became open warfare, a war of movement, and the essentials of minor tactics were then in play. His flanks and rear must be protected as his maneuvers began. Mere training in trench warfare would not be enough for our officers when this event happened.<sup>29</sup>

Consequently, Pershing ordered a training program stressing open warfare methods and offensive action: "The . . . methods to be employed must remain and become distinctly our own. All instruction must contemplate the assumption of a vigorous offensive. Its purpose will be emphasized in every phase of training until it becomes a settled habit of thought."<sup>30</sup>

Intimately connected with open warfare was the mastery of rifle marksmanship. The very term evoked images of self-reliant, stubborn pioneers who embodied the ideals and myths of the American frontier. Army leaders believed that marksmanship was a singularly American tradition that they could exploit. As General Harbord put it, "The authentic story of an Allied soldier with a rifle strapped on his back, chasing an enemy to get close enough to throw a hand grenade would never have been true of any American."<sup>31</sup> In August 1917 Pershing cabled the War Department that all soldiers shipped to France needed to be fully trained in marksmanship. The pace of training and hurrying divisions to France, however, never allowed adequate marksmanship training in the United

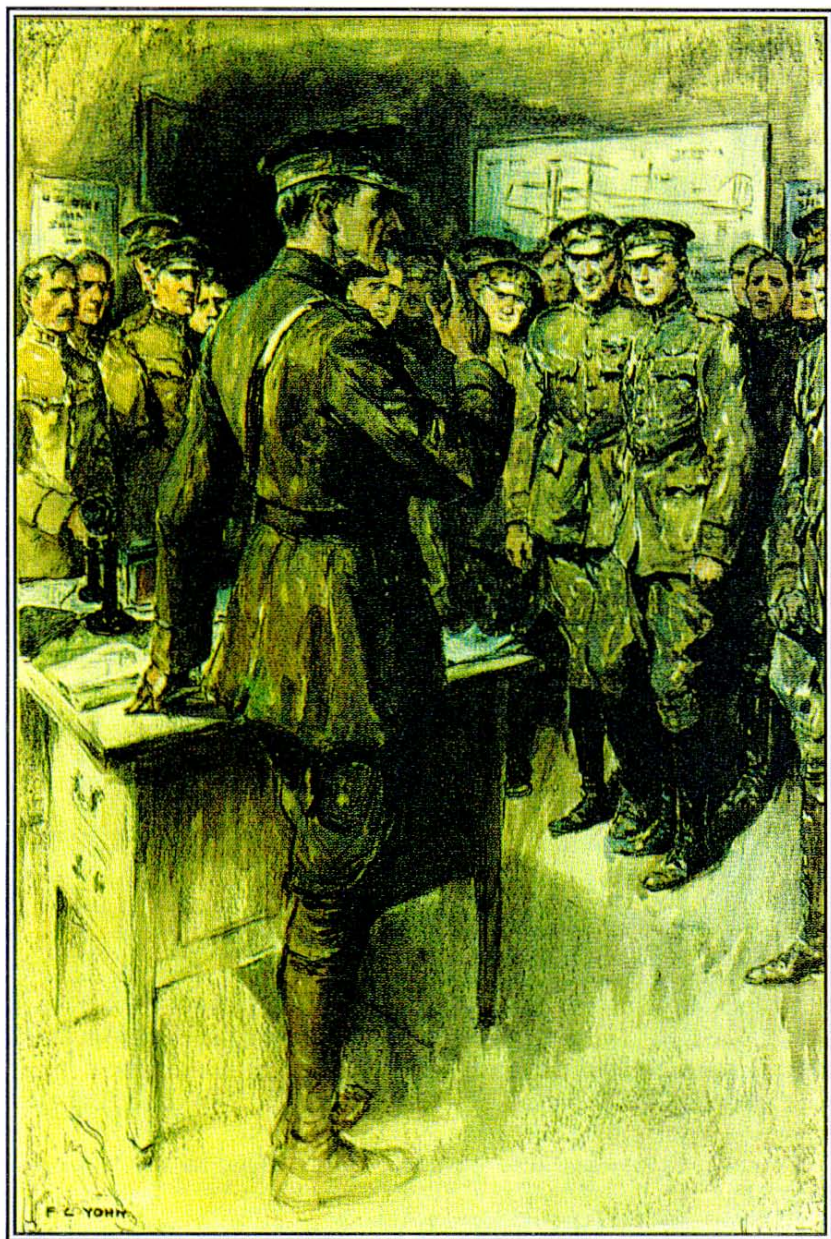
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<sup>28</sup>Pershing, *My Experiences in the World War*, 1:152.

<sup>29</sup>Harbord, *The American Army in France*, p. 150.

<sup>30</sup>*Ibid.*, p. 153.

<sup>31</sup>*Ibid.*, p. 185.



*"Testing Times"* by F. C. Yohn (Army Art Collection)

States. Consequently, the AEF assumed responsibility for such instruction as well as developing the myriad other skills demanded of their new soldiers, with the burden of the labor falling on small unit leaders. Typical were the measures taken by Lt. Clarence R. Huebner, who had spent seven years as an enlisted soldier before the war and had set up his own company rifle range, directing that his men fire five rounds every day at tin cans from 50- and 100-yard ranges.<sup>32</sup>

The civilian and military chiefs of the Allied Powers regarded Pershing's emphasis on maneuver and open warfare as suicidal. In addition, they were determined that the AEF would serve as part of an Allied army, either as units or as individuals, and not as an American Army with its own sector. Amalgamation—the integration of American troops in some fashion with their own—promised the quickest solution to their growing shortages of manpower. The French and British military and civilian leaders thus argued incessantly with Pershing over the matter and, when he proved adamant, went around him to President Wilson. Unfortunately for their aspirations for the AEF, neither Wilson nor his advisers agreed. Although the president gave Pershing a relatively free hand in arguing the matter, it was obviously highly political.<sup>33</sup> Using American doughboys as cannon fodder for British- or French-led offensives would have obvious domestic effects in the American heartland, especially if those attacks fared no better than earlier ones. Pershing's only compromises on the amalgamation question were to provide four black regiments to the French Army and a white corps to the British. Although these units served throughout the war with the Allies, building a distinguished combat record, the AEF commander refused to expand the program further.<sup>34</sup>

Mistrusting the thrust of the AEF's approach and its training, the Allies also tried consciously to alter its direction. Only in the spring of 1918, when some small engagements by the AEF had proved that it could stand up to the Germans, did the French grudgingly admit that the Americans could benefit from the earlier Allied experiences while still adamantly refusing to accept all their current methods. The French liaison officers with the AEF gradually saw the Americans as gifted with sound common sense and understood that as they accumulated their own experiences in the war, they would learn more from them than the

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<sup>32</sup>Pershing, *My Experiences in the World War*, 2:278; Coffman, *The War To End All Wars*, p. 137.

<sup>33</sup>Coffman, *The War To End All Wars*, pp. 174–75.

<sup>34</sup>Bernard C. Nalty, *Strength for the Fight: A History of Black Americans in the Military* (New York: Free Press, 1986), pp. 120–21; Nalty and Morris J. MacGregor, eds., *Blacks in the Military: Essential Documents* (Wilmington, Del.: Scholarly Resources, 1981), pp. 80–81; Smythe, *Pershing*, p. 72.

French could teach them.<sup>35</sup> But regardless of changing sentiments, Pershing remained determined to replace all the Allied trainers as soon as possible, a goal that he achieved by August 1918.<sup>36</sup>



Germans drew first blood from the AEF in the French sector on a Saturday morning, 3 November 1917. The 1st Division had nearly completed its training with the French, and final training exercises were to take place as one infantry and one artillery battalion from each American regiment went into line with a French regiment for a ten-day period. A raid by a German patrol hit the American sector at Artois on the first morning of their tour and killed three Americans and captured sixteen. After daylight, Capt. George Marshall visited the unit and determined that it had shown a good account of itself. On Monday General Pershing ordered an inspection team to visit the unit and make a report. The team included the chief of the Army schools, a lieutenant colonel from the Operations Section, and Colonel Fiske, then deputy training officer of the AEF. The report is concise and thorough. The three pages of "Observations and Conclusions" listed specific procedural or organizational changes needed to avoid similar incidents, such as:

To facilitate rapid exit, hand ropes should be placed on both sides of the dugout steps, the trenches themselves should be provided with steps or ramps, and the whole procedure drilled until every man knows what he is to do.

The German artillery appears to have registered on the Artois trenches some days previously. The supporting artillery observers should have noted what the Germans were doing and warned the infantry of what to expect.

More important than the accurate comments and recommendations themselves was the speed with which they were disseminated to the AEF. Less than two weeks after the raid, copies of the report were distributed to the Army and corps schools as well as to all general staff sections in the AEF down to division level.<sup>37</sup>



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<sup>35</sup>Fiske, "Training in the AEF," and Ltr, Baltzell to Fiske, 15 Jan 32, both in Fiske Papers, MHI; "Report of the French Military Mission with the American Army," 6 Mar 18, Hugh A. Drum Papers, MHI.

<sup>36</sup>Pershing, *My Experiences in the World War*, 1:152 and 2:114-15; Smythe, *Pershing*, p. 170.

<sup>37</sup>Rpt, Board of Officers, HQ, AEF, France, 14 Nov 17, sub: German Raid of Night of November 2-3, 1917, MHI. A description of rotation into French lines for training is in George C. Marshall, *Memoirs of My Service in the World War 1917-1918* (Boston: Houghton Mifflin, 1976), p. 41.



A problem began almost as the Americans arrived on the Continent and persisted in the AEF through the end of the war—the shortage of platoon leaders. Initially the AEF estimated that it would need only 6,000 replacement officers; however, officer losses in the first engagements, especially of platoon leaders, were far above anticipated levels. The G-5 hastily put together an officers candidate school, which by the time of the armistice was graduating a staggering 5,000 infantry officers per month. Artillery, engineer, and signal officer courses were graduating another 1,400 monthly. Transforming a young enlisted man into an infantry platoon leader is a daunting task in the best of circumstances even in peacetime; doing it in a few weeks in wartime is almost impossible. As one journalist expressed the problem after the war, “A lot of men are buried in the Argonne because people cannot in a short time learn even the elements of warfare so as not to forget them in the stress of battle.”<sup>38</sup>

By the fall of 1918 the problem of finding qualified officer candidates was threatening the program, and it is questionable whether the level could have continued through the winter had the armistice not intervened. Fiske mused after the war that by September the AEF had experienced “the practical disappearance of suitable officer material from the ranks of the divisions.” Enlisted men in the United States had been classified by their civilian backgrounds, and virtually all “above the grade of unskilled laborer” had been routed into various military occupational specialties. As a result, “the men of courage, intelligence, energy, education, and general capacity so desperately needed to lead infantry platoons were behind desks or mending roads or otherwise engaged” in areas of less need. AEF headquarters unsuccessfully protested the practice, and Fiske believed it “one of the most serious mistakes of the war.”<sup>39</sup> With a vision to the future, he might have called it one of the most serious mistakes in the history of the U.S. Army in the twentieth century.



Military organizations have long been required to report in some detail on their operations. These reports sometimes served merely to ensure that a contemporary record existed for historical purposes. More often, however, the reports were expected to serve the same use as that

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<sup>38</sup>Arthur W. Page, *Our 110 Days' Fighting* (Garden City, N.J.: Doubleday, Page, and Co., 1920), p. 140.

<sup>39</sup>For George Marshall's comments on the number of officers which the 1st Division lost to administrative details in the early days in France, and how these losses continued through 1917, see Marshall, *Memoirs*, p. 15. See also Fiske, “Training in the AEF,” and Ltr, Baltzell to Fiske, 15 Jan 32, Fiske Papers, MHI.

stated in General Orders (GO) 21 of the American Expeditionary Forces, which mandated “reports on each operation (engagement, movement of troops, construction, installation of a depot, etc.).” The order elaborated: “These reports will show any errors made and how they may be avoided in the future, possible general improvements, failure of any material and its cause, etc., and also note any scheme or material which gave exceptionally good results.”<sup>40</sup>

AEF headquarters reinforced these after-action reporting requirements through 1918, but it was not until the eve of victory that the reports were standardized in a doctrinal format. GO 196, dated 5 November 1918, outlined new reporting requirements, replacing the more modest ones in place since the end of 1917. Its purpose was “to standardize the whole question of operation orders and reports, and to make clear exactly what operation orders and reports G.H.Q. requires.” The order went on to outline the philosophy behind several of the more significant reports, especially the war diary, which it described as

a record of events kept in campaign. While it is required to reproduce in large part the same facts as are given in situation reports, the mere giving of such facts constitutes the least part of the keeping of the war diary. What is of most importance is that there should be a narrative of the operations from which the history of the unit can be gathered and also professional and especially tactical instruction.<sup>41</sup>

Subordinate headquarters down to regimental or brigade size were further required to submit any training or tactical instructions they issued. And after “any important period of operations,” each division and corps headquarters had to submit a special report with appropriate maps. The latter document was clearly seen as an opportunity to capture lessons, with the order specifying:

Great care will be exercised in its compilation because of its military and historical value. . . . It should be a succinct account covering brief of orders issued and the general maneuver plan of the commander for each phase of the engagement, followed by an epitome of events compiled by G-3 from messages and reports received during and after the action.<sup>42</sup>



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<sup>40</sup>GO 21, 13 Aug 17, in *United States Army in the World War 1917-1919*, vol. 16, *General Orders, GHQ, AEF* (Washington, D.C.: U.S. Army Center of Military History, 1992), p. 53.

<sup>41</sup>GO 196, 5 Nov 17, in *General Orders, GHQ, AEF*, p. 516.

<sup>42</sup>*Ibid.*, pp. 517ff.

A perusal of the volumes of Military Operations in the Official History of the American Expeditionary Forces impresses the reader with just how far the organization progressed in its capabilities and efficiency in a relatively short time. A typical example is the "Tactical Instructions" from an after-action report of a brigade of the 30th Division on 14 October 1918. The memorandum has paragraphs on assembly areas, initial dispositions, fire action, passage of obstacles, mopping up trenches, attacking machine gun nests, organization of conquered ground, and liaison. A few excerpts are enlightening:

Rifle fire was used to its utmost; the men had been taught to fire as they advanced, stopping momentarily to fire while the line advanced continuously.

Automatic rifles were kept well to the front, small groups with automatic rifles penetrated between machine gun nests taking them from the flank or rear. Rifle grenades were effectively used to break up machine gun nests.

In order to cut the wire, four engineer soldiers, three with heavy wire cutters and one with an ax, followed each half platoon of the lead battalion, in addition, seven hundred heavy wire cutters were issued to each regiment and men were detailed to carry same and practiced beforehand in cutting wire with them.

Telephones and runners were found to be the most reliable means of communication.<sup>43</sup>

One can find many such lessons in after-action reports incorporated into doctrinal publications of the War Department and the AEF as they evolved over the course of the war. The most important works during and immediately after the war in conveying contemporary developments throughout the command were the "Notes on Recent Operations." All were pocket-size manuals marked "strictly confidential," to be "kept at all times in your personal possession, . . . not to be carried into front line trenches," and not to be shown to foreigners, presumably including the French and British. The first, published in July 1917, comprised 19 foreign documents, 6 British, 2 French, and 11 German. The documents ranged from the German "Instructions for gunners drawn from the lessons of the Battle of the Somme," and "Lessons to be Drawn by Infantry from the Combats on the Right Bank of the Meuse" to the British "Supply of Ammunition in the Field." Many were quite specific in outlining doctrine. The British instructions for battle, in discussing the difficulties of mopping up trench lines and wiping out pockets of resistance, stated:

Although the leading waves of an assault should not halt owing to these pockets, provided there is room to pass between and establish the line beyond, it is impor-

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<sup>43</sup>Memo 230-32.15, 30th Division, A.E.F., 14 Oct 18, in *United States Army in the World War 1917-1919*, vol. 7, *Military Operations of the American Expeditionary Forces* (Washington, D.C.: U.S. Army Center of Military History, 1990), pp. 560-62.

tant that the enemy thus left behind should be rounded up by reserves furnished from the rear without delay, at any rate unless the advance has swept so far beyond as to render these pockets powerless for harm.<sup>44</sup>

A total of four “Notes” were published. Numbers two and three had a mixture of European documents and AEF and War College analysis. Number four was published only after the war and consisted solely of a nine-page AEF analysis of the Meuse-Argonne campaign.<sup>45</sup>

The other important document that sheds light on how the AEF absorbed and distributed lessons from its experience in the war is the Infantry Drill Regulations, the fundamental document outlining what the Army expected of the infantryman. Its evolution through the war shows very clearly that the AEF was taking the experiences of the war and incorporating them into its formal doctrine. The *Catechismal Edition Infantry Drill Regulations: Corrected to November 1, 1917*, was clearly a peacetime document. Its question-and-answer format contained separate sections on the conduct of the soldier; on the squad, the company, and the battalion; on combat; and a final catch-all, “Miscellaneous.” Designed for the prewar, peacetime soldier, it promoted rote regurgitation of answers at inspections, promotion boards, and the like. Nothing in its precepts encouraged the soldier to learn, to think, to analyze situations, or to adapt theory to the realities of combat.<sup>46</sup>

By the following spring the document had completely changed. The experiences of war on the Western Front had transformed the peacetime document into a realistic tactical manual to train a soldier to improvise and to lead others on the battlefield. Its five sections now incorporated drill, combat, marches and camps, ceremonies and inspections, and manuals. Although prescriptive in nature, the format was no longer couched in a question-and-answer mode, and the soldier was bluntly informed that he was expected to think for himself in tactical situations. After eight paragraphs describing formations and methods of crossing open areas, for example, the authors reminded the reader that the methods described were only suggestions, that “other and better formations may be devised to fit particular cases, [and that] the best formation is the one which advances the line farthest with the least loss of men, time, and control.”<sup>47</sup>

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<sup>44</sup>“Notes on Recent Operations” [no. 1], Jul 1917, WD Doc. 630, p. 55, MHI.

<sup>45</sup> “Notes on Recent Operations” [no. 2], Jul 1917, WD Doc. 641 [no. 3], Aug 1917, WD Doc. 655, and [no. 4], Feb 1919, WD Doc. 896, all in MHI.

<sup>46</sup>*Catechismal Edition Infantry Drill Regulations: Corrected to November 1, 1917* (Kansas City, Mo.: Franklin Hudson Publishing Co., 1917).

<sup>47</sup>*Infantry Drill Regulations: Corrected to May 6, 1918* (New York: Sherwood, 1918), par. 220.

A few paragraphs later, it turns even more pragmatic, advising soldiers that when charging, or running forward, becomes impractical, “any method of advance that brings the attack closer to the enemy, such as crawling, should be employed.”<sup>48</sup>

The final version of the regulations, published just after the war, incorporated the tremendous amount of experience the AEF acquired in the late summer and fall of 1918. On crossing open areas, for example, they elaborated on certain tactics, such as advances by rushes or by infiltration of small units, which previously only officers had directed. Skirmish lines, for example, were to “cross open fire-swept areas by [the] advance of individuals or squads,” with platoon leaders resuming command only after some predetermined terrain feature had been reached. All these measures reflected a tactical decentralization undreamed of in the prewar, parade-ground Army.<sup>49</sup>



A final category of reports includes the variety of combat accounts written after the war. The formal after-action reports of many AEF units are buttressed by hundreds of memoirs by participants at all levels in the war, as well as by hundreds of unit histories. To these may be added the formal assessments of AEF actions and activities compiled in the decade following the war by various official researchers. As in any such melange, they offer a range of suggestions to the analyst, some brilliant but many flawed or worthless.

The formal after-action reports are often detailed, analytical, and critical, incorporating accounts of hundreds of problems encountered at every level. The First Army Report of Operations, signed by its commander, General Hunter Liggett, recounts problems the Army encountered as well as solutions or suggested improvements for the future. Its topics range from problems in traffic control at St. Mihiel because of too few military police to difficulties in crossing no-man’s-land during the Meuse-Argonne because of shortages of pioneer and road-building equipment, with the general intent “to profit by past experience.” In a section entitled “Special Considerations and Recommendations,” a plethora of suggestions for better organization, training, weapons, coordination between branches, and employment

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<sup>48</sup>Ibid., par. 224 (emphasis in original).

<sup>49</sup>*Infantry Drill Regulations (Provisional) 1919* (Washington, D.C.: Government Printing Office, 1919), WD Doc. 953, par. 220. (Although this edition was published in Washington, it was originally written in the AEF.)

of aircraft comes tumbling out, a potpourri of what a later Army would call lessons learned.<sup>50</sup>

Personal memoirs and unit histories cover the gamut from the incisive to the worthless. Some were written with a cause to champion, be it preparedness, self-glorification, or “setting the record straight.” As in any historical endeavor, the motto must be, “Let the reader beware.” Unit histories are likewise a difficult area to generalize. Some are useful as a record of the day-to-day happenings of the unit, and some are entertaining as social history, giving extensive accounts of personalities and events through the eyes of participants. Most were written for subscription by veterans, and few have much constructive criticism.

The Army’s Superior Board on Organization and Tactics conducted the most important formal study of the war experience immediately following the conflict, rendering its report in June 1920. In it the board drew a number of lessons that were on the mark; others showed that its crystal ball was a bit clouded; while the many omissions of important topics speak for themselves. The board endorsed, for example, the continued existence of separate machine gun battalions, the wartime practice of slaving tanks to the maneuver of foot infantry, and, on a larger scale, the huge, ungainly “square” (four regiments in two brigades) infantry divisions that the AEF had fielded in France. In fact, Pershing’s reaction, as expressed in his cover letter, will surprise anyone with an image of the iron-jawed American general as a somewhat inflexible thinker. After arguing that the AEF divisional organization was appropriate only for the circumstances in which the AEF fought in France, he stated that it would be a mistake to think that future warfare would in any way resemble the recent conflict. Finally, he observed, “The false doctrine that the division does not need to maneuver arises from our experience in the breakthrough and especially through the difficulties which we faced and the errors which we committed and which it seems that many of us now prefer not to avoid and not to correct but to call ‘the lessons of the war.’”<sup>51</sup>



What may one conclude of the uses of experience and reports by the AEF? With a rigid but workable system for rapidly digesting battlefield experiences, it did quite well at learning the rudiments of warfare in a very short time. Whether such a system would have continued had the

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<sup>50</sup>“First Army Report of Operations,” 26 Mar 19, Drum Papers, MHI.

<sup>51</sup>GHQ AEF, “Report of the Superior Board on Organization and Tactics,” Washington, D.C., 16 Jun 20.

war lasted into 1919 or whether it would have evolved into a more flexible one for developing and disseminating doctrine is a matter for speculation. Again, the most serious challenge stemmed from the general lack of experience in military matters throughout the AEF and not just in the lower ranking soldiers who had limited responsibilities.

On the larger question of how an organization—the U.S. Army, for example—learned from the experiences of the AEF, the results are, with some exceptions, far less sanguine. In the short term, the Army simply ignored many lessons the AEF had learned at such high cost in blood and forgot them over the long term. These lessons range from the tactical to the operational and strategic levels. In the tactical-operational realm, cold-weather injury was a significant cause of manpower losses during World War II, the Korean War, and even the Vietnam War. This broad category includes frostbite, hypothermia, and injuries caused by long immersion in water, such as trench foot and immersion foot. Treatment of cold-weather injuries is difficult, often futile, and sometimes limited to the amputation of extremities to halt the spread of gangrene—prevention, rather than treatment, is crucial. A well-conditioned soldier with a minor wound often healed rapidly and returned to duty quickly; cold injuries of even moderate degree, however, often rendered even well-trained and experienced soldiers unfit for duty for long periods, sometimes permanently. Yet these injuries constituted only a minor problem for the AEF during World War I, thanks largely to British AEF instructors who emphasized the role of the chain of command in preventive measures. If commanders checked their soldiers' feet for trench foot and ensured that they had proper clothing and equipment to keep warm, cold-weather injuries would not occur. As a result, they were a minuscule percentage of total injuries in the AEF. Yet this easily effected preventive mandate was largely forgotten before the next war. Cold-weather injuries caused significant troop losses in both the Italian and northern European campaigns of World War II and in the Korean War.<sup>52</sup>

At the operational and strategic levels, there is the case of drawing a “lesson” that was an entirely erroneous application of wartime experience. The deployment of railway artillery for the coastal defenses of the United States in postwar years constituted a significant expense throughout World War II. Because the Coast Artillery Corps was the

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<sup>52</sup>For example, see Robert S. Anderson, ed., *Preventive Medicine in World War II* (Washington, D.C.: Office of the Surgeon General, Department of the Army, 1969), pp. 232–35, and Tom F. Whyne and Michael E. DeBakey, *Cold Injury, Ground Type*, Medical Department, United States Army in World War II (Washington, D.C.: Office of the Surgeon General, 1958).

only branch of the U.S. Army with experience in indirect fire of heavy artillery before the war, Pershing had assigned it the responsibility for all heavy artillery—during World War I, those guns over five inches in diameter (about 130-mm.). In addition to towed artillery, this included the huge siege guns twelve inches and over. Because these pieces were so heavy that French roads would not support their movement, they were mounted and moved on modified or specially designed railway flatcars. Impressed with their effectiveness as siege artillery, the men of the Coast Artillery Corps came back from their war experiences enthusiastically advocating the railroad gun as a coast artillery weapon in the United States.

Partly because Congress increasingly saw the coast artillery fortifications as anachronistic in the emerging age of the airplane, it was reluctant to appropriate funds for manning and maintaining the sea-coast forts after the war. The chief of the Coast Artillery was, however, successful in persuading Congress to appropriate funds for railway artillery by asserting that it would enhance and supplement the forts and expand their ability to defend the coastal cities. Superficially, railroad guns for the Coast Artillery sounded like a good idea—even some die-hards in the corps could see that the fortifications would become increasingly vulnerable to bombardment from the air. Railroad guns, it was envisioned, would be able to range up and down the coasts at will, shelling a hostile fleet at any point. In practice, it was an impossible concept. The weight of the railroad artillery meant that most railroad arteries could not carry them without special reinforcement. The guns could not fire from any random point on the line, but had to have special reinforced concrete hardstands on railroad spurs. In effect, they were only a little more mobile than the fortifications, with all the same vulnerabilities to attack from air or sea. In the process of deploying, manning, and maintaining railway coast artillery, the United States squandered millions of scarce dollars during the interwar period, all to field a weapon that was unable to perform its mission of destroying enemy warships and was obsolete before it was built.<sup>53</sup>

Another lesson of World War I quickly forgotten was the shortage of infantry lieutenants caused by diverting to other uses all soldiers possessing any practical skills, already cited as “one of the most serious mistakes of the war.” The shortage of lieutenants was a significant problem in

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<sup>53</sup>For a fuller discussion of the shortcomings of railway artillery for coastal defense, see Ken Hamburger, “The Technology, Doctrine, and Politics of U.S. Coast Defenses, 1880–1945: A Case Study in U.S. Defense Planning,” Ph.D. diss., Duke University, 1986, pp. 236–39, 262.



World War II, Korea, and Vietnam. In World War II and the Korean War, the Army attempted to solve the problem by giving direct commissions to competent noncommissioned officers, thus directly creating a secondary problem of noncommissioned officer shortages.

To its credit, the Army did attempt to capture the wealth of experience in the myriad after-action reports of operations in the war. During the interwar years a staff section in the Army General Staff studied these reports and integrated the various reports on individual operations into comprehensive accounts. Often, they sent these versions to the participants for corrections and recommendations. Although these were not published before World War II began, the exercise undoubtedly enriched the tactical and operational proficiency of the staff officers making the studies—one of whom, Dwight D. Eisenhower, later commanded all Allied forces in the European Theater.<sup>54</sup>

Other cases, beyond the scope of this study, abound—for example, the use, or misuse, of black troops, or those of different cultural backgrounds or race. Another example pertained to the dependence on other nations for the provision of contemporary military equipment of all types—and the associated length of time needed to build an effective war economy to produce such equipment. (The U.S. Army never had a qualitative edge over its German opponents during World War II despite the superior productive capabilities of American industry.) Still others can be found in the variety of issues that surrounded the demobilization efforts following the armistice, both in Europe and in the United States. Indeed, an institution like the U.S. Army and the nation it defends can still learn much from how it has failed to learn from experience in the past as it now faces an uncertain future.



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<sup>54</sup>I am indebted to Dr. Timothy Nenninger of the National Archives for this information.