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by

JAMES W. RAINEY

> Close adherence is urged to the central idea that the essential principles of war have not changed, that the rifle and the bayonet remain the supreme weapons of the infantry soldier and that the ultimate success of the army depends upon their proper use in open warfare.
>
> —John J. Pershing, 19 October 1917[1]

The Commander in Chief of the American Expeditionary Forces issued the above dictum as a statement of doctrinal principle intended to guide the training of his forces for combat on the Western Front. Under Allied pressure to mold his force and commit it to battle as soon as possible, Pershing did not have the luxury of time to engage in any lengthy study of combat doctrine or to test his theories in field exercises. He perceived his task to be an either/or proposition: adopt the principle of position warfare that had characterized combat on the Western Front since 1914, or stand pat with the tactical doctrine espoused in the American Army's combat bible, the *Infantry Drill Regulations*.

The tactical doctrine specified by the IDR and similar publications had been developed by others, and these methods of fighting were grounded in American military tradition. During the period of American involvement in the war, the Army hierarchy would publish further doctrinal literature. Nevertheless, it remained Pershing's self-appointed task to interpret the existing doctrine and to order his units to adopt this refined doctrine. His influence in this regard was pervasive and reached across the ocean to influence the training of Army units in America under the direction of the War Department.

But Pershing's intended *modus operandi* for his AEF raises interesting questions, the most fundamental being the degree to which American tactical doctrine would be in harmony with the nature of the warfare of the Western Front. Had Pershing truly found a unique solution to the tactical stalemate of the trenches, or did he adopt a doctrine that was unworkably at odds with the reality of the battlefield? What was the basis of his doctrinal theory, and was it thought out with any degree of intellectual honesty? Was it clearly stated, and did Pershing construct his units in conformity with the doctrine they were expected to execute? What was the effect of Pershing's actions on the preparation of the AEF for battle?

This article intends to offer evidence to support the conclusion that the tactical doctrine of the AEF was fraught with

inconsistencies. Such inconsistencies resulted in an army not fully prepared for the combat it faced on the Western Front.

Black Jack Pershing believed that three years of trench, or position, warfare had conditioned the British and French armies to a defensive mentality and an acceptance of a war of attrition. All they knew, he argued, was how to attack from trench to trench, to surge forward, drive the Germans out of their trenches, occupy them, and await the inevitable counterattack, all the while wearing down the enemy in an indecisive war of attrition. But in Pershing's estimation, Allied offensives had led to nothing more than local territorial gains at the expense of millions of casualties. Pershing reasoned that the Allies believed warfare had changed, that the awesome killing effect of the machine gun mandated a positional war of attrition, and that open warfare, the clash of units in a war of movement, was obsolete.[2]

Pershing wanted to field an army wedded to the spirit of aggressiveness. He did not foresee this occurring if the AEF adopted the tactics of trench warfare: "[We] must contemplate the assumption of a vigorous offensive. This purpose will be emphasized . . . until it becomes a settled habit of thought."[3]

Pershing therefore elected not to adopt the tenets of position warfare. He forcefully believed that the Germans could be beaten only by driving them out of their trenches and into the open, where the qualitative superiority of the American infantry marksman could be employed most effectively in a war of movement and pursuit:

> 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 . . . . [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.[4]

Pershing placed primary reliance in open warfare on the infantry soldier, believing that the rifle and bayonet would be the dominant weapons in a war of movement. The Allies, he perceived, had "all but given up the use of the rifle," the average Allied soldier relying on machine guns, hand and rifle grenades, and trench mortars as his principal weapons. Pershing worried that American soldiers, through association with Allied troops, would develop this same tendency and hence would be doomed to the trenches, and he constantly exhorted his officers to guard against allowing their troops to adopt Allied habits. AEF leaders must instill in their troops a high degree of confidence in the rifle and the bayonet.[5]

Reliance upon the infantry rifleman in open warfare continued unchanged as the principle of American combat doctrine advocated by Pershing throughout the war. Pershing insisted that his units achieve the skills to fight according to this principle. Pershing quarreled with any proposed doctrinal changes if they contradicted his strong belief that the American infantryman, trained in the proper application of rifle firepower, would be the ultimate tool of victory.

The detailed doctrinal principles to which Pershing consistently referred in his divisional training programs were those contained in the Army's IDR. The edition of these regulations in use at the time of America's entry into World War I was that of 1911, as amended to 1917.[6] According to the IDR, the key to success in battle lay in achieving fire superiority when attacking an enemy deployed either in prepared positions or in the open: "Attacking troops must first gain fire superiority in order to reach the hostile position. Over open ground attack is possible only when the attacking force has a decided fire superiority."[7]

Achieving fire superiority would enable the attacking force to come close enough to the enemy position to execute the charge. Artillery fire would be used to "aid . . . the infantry in gaining fire superiority,"[8] but "in the advance by rushes, sufficient rifles must

be kept constantly in action to keep down the enemy's fire." After the enemy's position had been penetrated and he had been routed, formed bodies of troops following the assaulting force were to engage in a "vigorous" pursuit in order to "reap the full fruits of victory."[9] This section of the IDR also contained the caveat that "few modifications enter into the problem of attacking fortifications . . . . If the distance is short and other conditions [unspecified] are favorable, the charge may be made without fire preparation." This caveat appeared in the 1911 and the amended 1917 editions of the IDR.[10]

The 1911 edition of the IDR does not evince much appreciation of the lethality of the machine gun. This is not surprising, since the American Army had not suffered the impact of these weapons in large-scale combat. The regulations state that "machine guns must be considered as weapons of emergency . . . of great value at critical, though infrequent, periods of an engagement." Attacking units possessing machine guns were advised not to employ them "until the attack is well advanced. Machine guns should not be assigned to the firing line of an attack." When attacking a hostile force armed with machine guns, and when the attacker did not possess artillery support, "infantry itself must silence them before it can advance. An infantry command that must depend upon itself for protection against machine guns should concentrate a large number of rifles on each gun in turn and until it has silenced it."[11]

While it may be understandable to find these precepts in a 1911 manual of American tactical doctrine, it is most surprising to note identical statements in the revised 1917 edition of the IDR, after the killing effect of the machine gun had been demonstrated during three years of battle on the Western Front.[12] It would be too simple an assumption to ascribe this to a lack of appreciation by American military leaders of the lethality of machine gun fire. Likewise, it would be naive to assume that American military leaders were unaware of the degree of sophistication that warfare had attained by 1917. What then explains the indicated lack of study in the IDR of methods other than reliance on traditional American "musketry" to carry the offensive against an entrenched foe armed with automatic weapons? Why did Pershing insist on an essentially "conservative approach to war" when modern weapons had made the traditional American methods of open warfare anachronistic?[13]

The American military experience was not lacking in examples of the difficulties encountered when offensive forces attempt to dislodge enemy troops ensconced behind fortifications. The American Civil War was replete with incidents in which entrenched defenders armed with rifles demonstrated their primacy over attacking troops. While some of these lessons may have passed out of the Army's consciousness during its postwar frontier experience, American military leaders had continued to study the evolution of warfare through observation of foreign conflicts. Lieutenant Francis V. Greene observed the events of the 1877-78 Russo-Turkish War and recorded his perceptions in a letter to General William Tecumseh Sherman in March 1878. Impressed by the strength and staying power of the defense as displayed during that war, Greene offered the judgment that "99 out of 100 division generals will fail to carry trenches by assault." Captain Carl Reichman, observing the 1904-05 Russo-Japanese War, described in the July 1906 edition of *The Infantry Journal* the battle of Liaoyang, during which four and a half Japanese divisions supported

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by 240 guns assaulted an entrenched Russian corps of 15,000 men and 80 guns: "The I Siberian Corps repulsed all attacks. This will convey some idea of the strength of the defensive."[14]

Pershing's contacts with machine guns had been considerable before 1917, and his tactical theories regarding the weapons trace their roots to these experiences. Like Reichman an observer of the Russo-Japanese War, Pershing viewed the Japanese use of entrenchments supported by machine guns. He reported that "[machine] guns are inconvenient of transportation, but . . . increase the morale of the troops. In a defensive position [the machine gun] can be used without disadvantage." Pershing understood that the Japanese classed machine guns with artillery as indirect fire support weapons. He noted with some trepidation the reluctance of infantry to advance in the face of machine gun fire, but Pershing was at the same time buoyed by the sight of spirited Japanese infantrymen nevertheless succeeding in battle. The precautionary advice of a French military attaché who observed that too much reliance on machine guns sapped aggressiveness was absorbed by Pershing.[15]

Observing Japanese Army maneuvers in 1907, Pershing witnessed the tactical refinements the Japanese had made in the use of machine guns to furnish direct fire support to advancing troops. He mused that these innovations were changing the nature of combat, and he criticized Japanese infantry for attacking machine guns in too close order.[16]

Pershing had conducted several training exercises that included the participation of machine gun elements, and thereby gained practical experience in their capabilities and limitations. These exercises included mock combats at Fort McKinley in the Philippines in 1907 and invasion maneuvers near Manila in 1910. As commander of the 8th Brigade at El Paso, Texas, in 1914, he directed a tactical problem in the attack and defense of that city with forces on both sides armed with supporting machine guns.[17]

During the Mexican Punitive Expedition in 1916, Pershing commanded troops in operations where machine guns were used on both sides. In one incident Pershing dispatched a force of six cavalry troops and one machine gun platoon to attack the Villistas at Ojos Azules. Upon meeting the enemy, the cavalry troops formed and executed the classic mounted charge, while "somewhere back in the dust trailed the Machine Gun Platoon." Another time, two of Pershing's cavalry troops executed a dismounted attack against an enemy force armed with a machine gun. Stung by the enemy's firepower, several officers were killed and the American troops broke off the action. But Pershing happily observed that even in defeat his troopers had killed 30 and wounded 40 Mexicans with accurate rifle fire.[18]

The AEF commander's faith in the efficacy of the infantryman against modern weaponry, in view of his certain understanding of the capabilities of machine guns, suggests a man-at-arms who was the captive of tradition. Pershing's attitude during World War I regarding the machine gun and methods to defeat it is evidence that he was having difficulty reconciling the realities of modern warfare with his military heritage. His professional psyche was bound to a faith in American marksmen, be they the masses of riflemen employed by Grant in his bloody battles of attrition or the more individualistic marksmen of Pershing's own experiences. This heritage contained Pershing's interpretation of American combat doctrine.

A recent assessment of the AEF experience argues that Pershing "overlooked" the facts of long-range artillery and machine gun fire when he pronounced that victory was to be secured by engaging the Germans in a war of movement on open terrain.[19] "Overlooked" is perhaps too imprecise a term to apply to Pershing's theorizing; ambivalence is a better descriptive, in the sense that Pershing's belief in the myth that American infantrymen could routinely overcome machine guns and the *reality* of combat on the Western Front presented the AEF with the existence of mutually conflicting theoretical guidance. Unfortunately, such ambivalence extended to other aspects of Pershing's doctrine.

But evidence suggests that others within the American Army were more cognizant than Pershing of the effects of modern weaponry and appreciated that the nature of warfare on the Western Front was alien to the American Army's experiences in post-Civil War fluid open combat. The forces of American military tradition still had an effect on many besides Pershing, but through an examination of the evidence one gains the sense that American tactical thought was maturing and attempting to reconcile the dichotomous influences of tradition and change.

Pershing's staff met on 11 July 1917 with a War Department board of officers sent to France to determine the most appropriate tactical organization and equipment for the American combat division. In one finding the "Baker Board," so called after its senior member, Colonel Chauncey B. Baker, determined that one of the division's artillery regiments should be equipped with 3.8-inch or 4.7-inch howitzers. Pershing's staff argued against this conclusion, stating their preference for 6-inch (155mm) guns. The rationale of Pershing's Operations Section was twofold. First, 155mm guns were readily available from French resources; hence, American units could be armed at a rapid pace. Second, the heavier 155mm guns, while less mobile, would provide greater firepower. Firepower was the choice of these AEF officers over mobility for warfare on the Western Front because of "the belief that the present war would not assume the form of a war of any considerable movement."[20]

AEF staff officer Lieutenant Colonel John H. Parker submitted a report to Pershing on 7 August 1917 concerning Parker's visit to a French automatic weapons training center. Parker, who in previous reports had trumpeted himself as the AEF's premier machine gun theoretician, candidly observed:

> We are both convinced we have been shown . . . the day of the rifleman is done. He was a good horse while he lasted, but his day is over . . . . The rifleman is passing out and the bayonet is fast becoming as obsolete as the crossbow.[21]

While Parker's remark did not endear him to his commander-in-chief, it is suggestive of the difficulties that Pershing's staff was having in reconciling the tactical doctrine espoused by their chief with the grim reality of the Western Front.

Parker's report is also indicative of the influence of the French and British experience. Because of the scarcity of American instructors and training literature in the early stages of the American involvement, Pershing was forced to borrow trainers and training documents from his Allies. Numerous French and British publications on tactical doctrine were issued to American units. The doctrine and "lessons learned" contained in these Allied documents were not in harmony with the tactical precepts of open warfare that Pershing espoused, but by virtue of the deluge of distribution of these publications, the AEF on a wide scale was exposed to the French and British view of warfare.

On 9 August 1917, Pershing's GHQ forwarded to the commander of the American 1st Infantry Division 175 copies of a translation of the 1915 French publication "Tactical Employment of Machine Guns," "for issue to Officers of your command." This document stated that "the increase in the number of machine gun units tends to make this weapon the principal fire-arm of the infantryman."[22]

War Department Document 583, "Instructions on the Offensive Conduct of Small Units," was a French pamphlet distributed by the War Department in May 1917, and by AEF GHQ in August 1917. It contained the standard French pessimism: "Infantry of itself has no offensive power against obstacles defended by fire . . . [and] reinforcement of riflemen . . . will simply increase the losses." The War Department added a "Translation Notice" that reviewed the changes in warfare since 1914. Noted were the presence of extensive entrenchments, the power of the machine gun, and the inability of infantry forces to capture or break through modern entrenchments unless supported by massive artillery fire.[23]

By late summer 1917, War Department tactical literature reflected that a recognition

of the changed nature of warfare had seeped deeply into American doctrinal thought. The War College Division of the General Staff had responded to a July 1917 Pershing recommendation regarding combat training by issuing War Department Document No. 656, "Infantry Training," the introductory paragraphs of which indicated the type of warfare for which the War Department believed American divisions should be trained:

> In all of the military training of a division, under existing conditions, training for trench warfare is of paramount importance. Without neglect of the fundamentals of individual recruit instruction, every effort should be devoted to making all units from the squad and platoon upwards proficient in this kind of training. It is believed that in an intensive course of 16 weeks troops can be brought to a reasonable degree of efficiency through the squad, platoon, and company, making it possible with a minimum of training in France for them to take their places on the line. The responsibility for the instruction in trench warfare of field officers, staff officers, and higher commanders rests with special force upon the division commander.[24]

This document is not the only indicator of this trend in American tactical thought. Commenting on a British pamphlet on the use of automatic weapons which stated, "however far we push the German back he will always have behind him a series of carefully prepared positions . . . [so that] there is little chance of a return to open warfare," reviewing officers of the War College Division described these instructions as "excellent material" and "best matter I have seen."[25] In France, the AEF in March 1918 distributed yet another translated French document that clearly enunciated the realities of the Western Front. It described the German defensive doctrine of organizing defenses in depth, supported by interlocking fields of machine gun fire emanating from dispersed strong points. But to combat and defeat these "elastic" defenses, the document stated, "demands no essential modification in our offensive tactics." German defenses "can be defeated by infantry, formed in depth . . . advancing close behind the barrage." Pershing's headquarters issued these instructions "for the information and guidance of" the AEF, thereby establishing as doctrine combat procedures that were in confusing conflict with Pershing's own precepts regarding open warfare.[26]

There is evidence other than that contained in these theoretic documents that American officers realized by mid-1918 that reliance on infantrymen and traditional American musketry in open warfare would not be the most appropriate method for defeating the German Army. Pershing's staff in early 1918 conducted, at his direction, a study of the "square division" to determine if it was the type of unit best suited for the nature of warfare in which the AEF was engaged. Lieutenant Colonel Hugh Drum directed the study.

Drum's conclusions are contained in a lengthy memorandum submitted on 18 May 1918 to Colonel Fox Conner, his superior and the chief of the AEF Operations Section. Drum compared a division organized around three light regiments to the square division's two brigade/four regiment system. He allowed that the former organization offered advantages in mobility and flexibility to the commander interested in envelopment and maneuver. But Drum concluded that these tactics were not in harmony with the situation on the Western Front, where German defenses consisted of strong points arrayed in great depth, frontage, and density. To combat these defenses, Drum argued that mass concentrations rather than flexible formations were required: "In some cases the enemy's deployment may be so dense that the old time shoulder to shoulder function will be required." The square division should be retained, he noted, since "In a war of masses and protracted flanks, the offensive produces success by surprise blows, whose power is insured by great depth." The square division was the ideal formation to provide the capacity for attack in depth; its organization should not be changed "until the experience of combat shows conclusively that our basic principles are wrong." Many of the American division commanders surveyed by

Drum in his study supported his perception. For example, the commander of the 2d Infantry Division stated, "Since on the western front open warfare will occur only in periods, followed by long periods of trench warfare, the ideal organization is that best suited for offensive trench warfare."[27]

AEF tactics would still be based upon reliance on the infantryman, but a grudging appreciation of the evolution of warfare, it seemed, was forcing some American military leaders to conclude that those infantrymen would have to be employed not as individual marksmen in fluid open warfare, but rather in a war of mass and attrition all too reminiscent of Grant's bloody campaign from the Wilderness to Petersburg. The Army since the Civil War had remained bound to the principle of the destruction of the enemy army as the objective of warfare.[28] Drum wrote in late October 1918, "The gaining of ground counts for little, it is the ruining of his army that will end the struggle."[29] To destroy an enemy armed with weapons of 20th-century technology required neither reliance on 18th-century tactics of maneuver nor the attainment of the Napoleonic climactic battle; rather, victory demanded grasping hold of the enemy army in combat and consuming it through bloody and relentless attrition. The Catholic chaplain of the 42d Infantry Division, Father Francis P. Duffy, alluded to this reliance on Grantian tactics. Commenting on the tactical style displayed by Major General Charles Summerall, Duffy wrote, "He wanted results, no matter how many men were killed."[30]

One could argue that Pershing himself knew that the AEF would have to resort to a war of attrition. The 28,000-man square division that Pershing adopted was a behemoth more suited for sustained slugging than for a war of movement in the open. Historians are in general agreement that Pershing opted for a much larger division than the British and French employed because its increased volume of sustained rifle firepower would give the American division the capacity to carry entrenched enemy positions, a task at which the lighter Allied divisions had failed.[31] It must be noted that Pershing had been given the option by Army Chief of Staff Tasker H. Bliss of designing the table of organization of the American division. When the Baker Board recommended that the AEF adopt a square division of two brigades with two regiments each, numbering 25,500 men, Pershing concurred. The rationale of the board was that the AEF would require a division large enough to absorb losses and still remain in action, anticipating attritional combat.[32]

One other bit of evidence suggests that Pershing was more resigned to the need to prepare the AEF for position warfare than his rhetoric on open warfare implies. Chief of Staff Bliss in September 1917 had directed that in the rifle training of individual soldiers, "special emphasis should be placed on rapid fire."[33] If one accepts that in increasing the rate of fire of a bolt action rifle there will be some decrease in accuracy, then we can understand Pershing's rationale in bombarding the War Department with statements that the soldiers he was receiving were woefully deficient in marksmanship. Now, this fact does not lead one to conclude that Pershing favored either open or position warfare, as skill with the rifle would be valuable in both. However, the fact that Pershing emphasized the need for individual marksmanship training at known distances rather than for Bliss's rapid-fire training, which taught a soldier how to shoot on the move and at moving targets, suggests that Pershing appreciated the tactical situation in which American marksmanship most likely would be employed. A War Department officer who supported Pershing's viewpoint argued:

> The situation on the western front . . . is totally different from that we were taught to expect and for which we trained prior to the war. On this front the distance to practically every point on the enemy's line is as well known as the marked distance on the target range and it has become a question of hitting whatever appears at any of these known distances.[34]

But despite his awareness of the nature of modern warfare, despite his apparent realization that he would have no other choice but to plunge his divisions into a bloody war of attrition, John Pershing's rhetoric remained a captive of his own military experiences of fighting Indians on the open plains and of pursuing Moros in the Philippines and Villistas in the arid Mexican interior. He never was able to reconcile these theoretical conflicts, and this explains the paradox of his insistence on open warfare at a time when the enemy and technology had changed the rules. Two documents issued by Pershing's staff during the summer and fall of 1918 indicate that Pershing at that stage of the war clung to a wistful longing for the open warfare of his own experiences, and to reliance upon infantry marksmen for the successful prosecution of that type of combat.

In a July 1918 document, Pershing illustrated the differences in artillery support that troops could expect to encounter in trench and open warfare:

> In trench warfare [artillery fire is characterized by] a timed creeping barrage which the infantry may follow at a distance of about 100 yards; in open warfare such close co-operation between the infantry and artillery cannot be expected.[35]

Did Pershing merely accept this condition as a consequence of a war of movement, or did he want his infantry in open warfare to rely primarily upon their own weapons and not to look to the artillery as a crutch? The evidence in Pershing's doctrinal pronouncements supports the latter.

On 7 August 1918, Pershing sent the following memorandum to his chief of staff, Major General James McAndrew:

> Please have the Operations Section make a tactical study of the question of attack. It seems to me that perhaps we are losing too many men by enemy machine guns. I think this might be met by tanks or possibly by artillery. I wish a very careful study made of it.[36]

The resultant product was endorsed wholeheartedly by Pershing, and it represents the most relevant doctrinal publication issued during the war that reflects his tactical philosophy. For despite his mention of tanks and artillery as possible solutions, the result of the study reemphasizes what Pershing had been saying all along.

Published on 5 September 1918, "Combat Instructions" reiterated Pershing's interpretation of open warfare and the methods that his combat units were to employ in conducting it. Its opening statement is reflective not only of the ineffectiveness of the training conducted by the American divisions, but also of the lack of clarity of the doctrinal and training guidance issued to the AEF:

> The principles [of open warfare doctrine previously] enunciated . . . are not yet receiving due application. Attack formations of platoons, companies, and battalions are everywhere too dense and follow too rigidly the illustrations contained in the Offensive Combat of Small Units [a translation of a French training document published in January 1918]. Waves are too close together; individuals therein have too little interval. Lines are frequently seen with men almost elbow to elbow, and seldom with intervals greater than two or three paces. Columns, when used, are too long; in first line companies they should rarely have a greater depth than ten files. All formations are habitually lacking in elasticity; there is almost never any attempt to maneuver, that is, throw supports and reserves to the flanks for envelopment. Scouts, if used, are frequently only a few yards in front of the leading waves, where the only purpose they can serve is to blanket or to receive the fire of the men behind them. Subordinate officers display little appreciation of the assumed situation and how best to meet its requirements. It is necessary, therefore, to repeat once more a few fundamental principles which much be impressed upon all concerned.[37]

Perhaps General Pershing either was not explaining his combat philosophy clearly

enough to allow it to be translated into an effective training program, or no one was listening to him. It is more probable, though, that American officers and soldiers were confused by the paradoxes between Pershing's insistence in training for a style of warfare that was at odds with the conditions of the Western Front and his and the War Department's construction of an army that was ill-suited to conducting a war of movement.

"Combat Instructions" contrasted trench and open warfare in terms of the manner of deployment of tactical units. Trench warfare was characterized by rigidly uniform formations, "regulation of space and time by higher command down to the smallest units," and "little initiative [by] the individual soldier." Open warfare was indicated by precisely the opposite factors, with irregular formations, scouts preceding the assaulting waves, and a high degree of "individual initiative," with primary reliance placed upon "the greatest possible use of the infantry's own fire power to enable it to get forward."[38]

The pamphlet prescribes the execution of a battalion attack under the conditions of open warfare once "the enemy's first line trenches have been entered," and recognizes the German machine gun as the primary threat to American infantry. The battalion commander is advised to use the supporting weapons at his disposal, the one-pounder gun, the light mortars, and the division trench mortars. The role of supporting artillery is discussed, and the battalion commander is reminded of the "powerful" assist artillery provides to enable the infantry "to handle local situations." However, the deleterious effect of using artillery in direct support of assaulting troops is also noted:

> The assignment of artillery to infantry units binds such artillery closely to the infantry it is supporting and gives the infantry commander a powerful combination of arms with which to handle local situations without loss of time. On the other hand, it tends to lessen the power of artillery concentration of the division as a whole, and may render the infantry unit clumsy and immobile. Moreover it demands a high degree of decision and initiative on the part of both the infantry and artillery commanders immediately involved.[39]

Machine guns in support of assaulting infantry are assigned a somewhat greater role than specified in the IDR. The machine gun was still seen as a "weapon of emergency" by Pershing, since in the initiation of an attack, "the machine gun platoons will at first usually follow in the rear of the first line companies." "Combat Instructions" states that machine guns should "concentrate [their] fire . . . on those hostile nests or strong points which are making the most trouble."[40]

"Combat Instructions" leaves no doubt, however, that Pershing still considered the infantry rifleman the sine qua non in combat, even against a semi-entrenched foe armed with machine guns. True, the battalion commander is advised to use supporting weapons, but he is reminded that when he calls upon his most effective supporting arm, the artillery, to "handle local situations," he is lessening "the power of artillery concentration of the division as a whole." True, the machine gun is commended as a valuable supporting weapon, but only to be used when the attacker meets the "most trouble." But a platoon of infantry is accorded the capability of being able "by itself . . . to capture one, or even a pair, of hostile machine guns. The capture of a nest of machine guns will probably be beyond the capacity of a platoon, and will require the company to send its support platoons to the flanks to envelop or encircle."[41]

One should not dismiss lightly the impact that these caveats made on infantry commanders. The message from Pershing is that these officers are expected to achieve success primarily by force of their own combat arm, the infantry.

Pershing so strongly believed in the validity of the combat doctrine promulgated by him that he directed his staff to prepare a revision of the War Department IDR. Although this revision did not appear until

after the Armistice, its preparation was underway during the later months of the war, and it is reflective of the lack of evolution in Pershing's tactical thinking. A brief review of its salient points provides a valuable insight into Pershing's perception of the nature of combat by the end of the war.

Despite the lessons wrought by the new weapons, one finds that Pershing's professed faith in the rifle had not changed. The machine gun was still touted primarily as a defensive weapon. Its value to assaulting troops was diminished by its lack of mobility vis-à-vis the rifle or the automatic rifle.[42] The tank, perhaps the most revolutionary of the new weapons, was recognized as an important auxiliary weapon, but its value was seen as limited to the opening stages of an assault conducted during position warfare. Tanks provided an effective weapon to penetrate the enemy's initial defenses, but this advantage would be of negligible value if the tank assault was not followed up by supporting infantry. "Infantry must take immediate advantage of an opportunity to exploit a success obtained by a tank. Tanks are unable to exploit their own superiority of fire or hold a position."[43]

No, Pershing held, it was the rifle that won the war, and he steadfastly clung to this belief:

> In spite of the addition of numerous auxiliary weapons to infantry units, the rifle is by far the most formidable weapon of the infantry soldier. Effective rifle fire is essential to victory and is the element which most frequently determines the issue of the battle.[44]

Throughout the literature on tactical doctrine issued by General Pershing, the consistent overriding theme is a belief in the value of open warfare over trench warfare. The latter had led only to stalemate on the Western Front. Only when the Germans were chased out into the "open," Pershing argued, could they be beaten. Only this mode of battle, he said, would end the senseless war of attrition that had cost millions of casualties.

But in studying Pershing's pronouncements on open warfare, something appears to be missing. Pershing professed disdain for position warfare and preference for open warfare on numerous occasions. He understood fully the modalities of static combat, of the attack from, and the defense of, prepared entrenchments. His staff and subordinate commanders, at Pershing's insistence, focused considerable innovative thought on means to prosecute successfully a war of position as a necessary preliminary to a war of movement. For instance, on 5 September 1918, all AEF corps commanders were ordered to send one officer from each of their divisions to observe new techniques developed by the 3d Infantry Division's 6th Engineers for passing infantry through wire entanglements. The 6th Engineers had perfected a "rug" of wire matting that could be rolled over poles laid across the wire. Troops would scurry over the "rug" and move rapidly into the enemy's entrenchments.[45]

But Pershing's tactical thought never was able to reach and pronounce a definition of those elements that constituted "open" warfare, the clash of infantry units in the open, within the context of the realities of the Western Front. AEF tactical literature is detailed in describing how to attack an entrenched enemy position, and how to continue the assault against secondary and tertiary trenches or strongpoints. But unit-to-unit combat in the open, the "pure" form of open warfare, is not defined. Yet this was the mode of warfare for which Pershing demanded that his units prepare!

This conclusion is nowhere more evident than in the new IDR. One section of this document contains detailed guidance on the conduct of position warfare. Pershing then stressed his belief in the preliminary nature of position warfare by stating, "An engagement of this kind is not the end but merely the means to an end. It has for its purpose the forcing of the enemy into the open where his masses may be decisively attacked and destroyed."[46] One then expects to find similar detailed instructions on the conduct of this next phase of battle, the open or maneuver phase. But the remainder of the new IDR continues to describe the conduct of the attack against enemy strongpoints or entrenched positions. Units from platoon to

brigade are provided explicit instructions on how to attack an enemy deployed in these configurations. Nowhere is there found similar guidance on the conduct of units engaged in the pursuit of an enemy in the open, "where his masses may be decisively attacked and destroyed."[47]

What, then, may we conclude from this evidence of ambivalent American tactical doctrine? One judgment might be that Black Jack Pershing really never expected that his units would engage in open warfare. Perhaps he knew that an attritional war of position was the only way to defeat the Germans, but feared to state this conclusion openly because he did not want his divisions to adopt the nonaggressive mentality that he believed was the product of trench warfare. Perhaps Pershing had concluded that "no real alternative remained to a strategy which aimed at destroying the German armies by grinding them into ruin."[48] He unwittingly admitted as much when he stated that the American objective during the Meuse-Argonne offensive was "to draw the best German divisions to our front and to consume them."[49]

We may also conclude that it was unfortunate that Pershing could not bring himself to admit this recognition of reality during the conflict. His failure to do so caused considerable consternation among the American infantrymen training to fight the battles. How could these officers prepare their units to team with their supporting arms to combat entrenched Germans when the mass of rhetoric and doctrinal literature thundered Pershing's faith in infantrymen and musketry in a fluid war of movement? The price for deviation from these dicta during training, commanders knew, was swift and certain relief by "the Chief." But the price for adherence was higher in combat, because commanders were confused by Pershing's insistence on a tactical doctrine that was totally at odds with reality. How were they to fight Germans in the open when the Germans were not about to accommodate these tactics and had to be pried out of their entrenchments only to fall back again and again into more entrenchments, as was the German tactic in the Meuse-Argonne? How were American commanders going to execute Pershing's war of movement on the terrain where he hoped to employ his divisions, the plain of the Woëvre, when this terrain was known to consist of such impedimenta to rapid movement as impervious clay soil, dotted with numerous stagnant pools, criss-crossed by small streams, and open to panoramic observation from German-dominated hills?[50] An advance across such terrain, especially in poor weather, would have been the AEF's Passchendaele. "Open warfare" is an irrelevancy when advancements in weapon technology have rendered the survival of attackers in the open a short-term prospect.

The conflict between the way Pershing ordered American units to prepare to fight and the way their instincts told them to fight is indicated in Major General Summerall's admonishment to his 1st Infantry Division after the combat at Soissons in August 1918. Summerall stated that the density of the American formations at Soissons had caused casualties. They had been trained to advance with intervals of up to ten paces between men, he reminded his troops, but commanders had rushed support troops forward prematurely to thicken front lines, a maneuver that only served to deplete reserves and offer more concise targets for German machine guns.[51] But American infantry officers knew that their arm could succeed and at the same time satisfy Black Jack Pershing only if they smothered German machine guns with American flesh.[52]

Historian Allan Millett has captured succinctly the essence of the problem caused by Pershing's insistence on training to perfect a doctrine—open warfare—that was alien to the nature of this war, imprecisely stated, and ill-suited for execution by the type of tactical units that Pershing had adopted:

> Many infantry officers, especially those who took [Pershing's] doctrine literally, did not open their tactical formations and skillfully use their supporting arms. Except for the preplanned, set-timed barrages by both artillery and machine guns, the infantry did not get the support it might have had, and it paid in casualties.[53]

Finally, we may conclude that ambivalent doctrine does not provide a firm foundation on which to train an army. Major General Hunter Liggett was perplexed as he pondered how to satisfy Pershing's orders to train the divisions of his I Corps for open warfare. Liggett, considered the best professional intellect in the AEF, groped for a solution to the very fundamental problem created by the ambivalence in American tactical doctrine. He wrote to Colonel Fox Conner on 9 April 1918:

> I am enclosing a copy of a memo which I have drawn up, and which it is believed will enable Division Commanders of the 1st Corps to train upon some practical line for open warfare, offensive and defensive. I can find nothing in the mass of literature I have received which teaches this, to me essential question.

Liggett's memo was forwarded to Conner by a staff officer of I Corps who added to it a marginal note that read:

> The General has been trying to figure a scheme whereby each C.O. (Regt., Brig. Div.) would have a *reserve* etc. Perhaps as a "seedling" this may grow into something.[54]

Armies that possess a settled doctrine for combat that is in harmony with the nature of the war in which they are engaged do not need to plant "seedlings" in the midst of that war. For the AEF, by April 1918 it was a little late for that.

NOTES

1. Cable 228-S, 19 October 1917, Pershing to AG, War Department, quoted in US Army, Historical Division, *United States Army in the World War, 1917-1919* [hereinafter *USA/WW*], 17 vols. (Washington: Department of the Army, 1948), XIV, 316.
2. John J. Pershing, *My Experiences in the World War*, 2 vols. (New York: Stokes, 1931), I, 151-52. Frank E. Vandiver, *Black Jack: The Life and Times of John J. Pershing*, 2 vols. (College Station: Texas A&M Univ. Press, 1977), II, 772.
3. Program of Training for the 1st Infantry Division, October 1917, quoted in *USA/WW*, XIV, 304.
4. Pershing, *Experiences*, I, 152.
5. Ibid., I, 153-54.
6. War Department, Document No. 394, *Infantry Drill Regulations, United States Army, 1911* (Washington: GPO, 19 August 1911). Eighteen changes were issued between 1911 and 1917. None of the changes pertained to the data cited in this paper. For a review of the revised document, see: US Infantry Association, *Infantry Drill Regulations, United States Army 1911, with Changes 1-18* (Philadelphia: J. B. Lippincott, 1917).
7. *IDR, 1911*, p. 100.
8. Ibid., p. 104.
9. Ibid., pp. 111-12.
10. Ibid., p. 114; *IDR, Changes 1-18*, p. 118.
11. *IDR, 1911*, pp. 123-24.
12. *IDR, Changes 1-18*, pp. 127-28.
13. Russell F. Weigley, *History of the United States Army* (New York: Macmillan, 1967), p. 391.
14. Greene's letter and Reichman's article are quoted in Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (New York: Macmillan, 1973), pp. 198-99.
15. Vandiver, I, 370-71.
16. Ibid., I, 434.
17. Ibid., I, 422-23, 486-87, 591.
18. Ibid., II, 642, 652-53, 655.
19. David M. Kennedy, *Over Here: The First World War and American Society* (New York: Oxford Univ. Press, 1980), p. 174.
20. Report of Conference between the Baker Board and the AEF staff, 11 July 1917, quoted in *USA/WW*, I, 107, 110.
21. Parker's report contains a marginal handwritten comment by Lieutenant Colonel Paul B. Malone, Chief of the AEF Training Section, that reads: "Speak for yourself, John." National Archives, Record Group 120, Entry 268, File 13.12.
22. National Archives, Records Group 120, Entry 268, File 13.1.
23. War Department, *Instructions on the Offensive Conduct of Small Units* (Washington: GPO, 1917), pp. 5-6, 9.
24. War College Division, General Staff, US Army, War Department Document No. 656, *Infantry Training* (Washington: GPO, 27 August 1917), p. 5.
25. National Archives, Records Group 65, File 9383-204.
26. AEF, Document No. 160, *Instructions for the Offensive Combat of Small Units* (Chaumont, France: GHQ, AEF, March 1918), pp. 4-5.
27. Memo, Drum to ACofS, G3, 18 May 1918, with comments from American division commanders, quoted in *USA/WW*, II, 406-12.
28. Weigley, *American Way of War*, p. 511, n. 13.
29. Quoted in Edward M. Coffman, *The War to End All Wars: The American Military Experience in World War I* (New York: Oxford Univ. Press, 1968), p. 338.
30. Quoted in D. Clayton James, *The Years of MacArthur, 1880-1941* (Boston: Houghton Mifflin, 1970), pp. 219-22.
31. Weigley, *History of the United States Army*, p. 386; Kennedy, p. 173; Josiah B. Miller, "Development of Departmental Direction of Training and Training Policy in the United States Army Revolutionary War to 1920" (Draft manuscript, Department of the Army, Office of the Chief of Military History, n.d.), pp. 1-23.
32. John B. Wilson, "Army Lineage Series: Division and Separate Brigades" (draft manuscript, US Army Center of Military History, n.d.), pp. 3:6, 3:9, 3:12. Pershing may also have opted for a large division composed of a small number of subordinate units because such a structure would have required fewer trained officers, a quantity in relatively short supply.
33. Memo, Chief of Staff to AG, 17 September 1917, Subject: Small Arms Target Practice, National Archives, Records Group 165, File 7906-15.

34. Memo, LTC Morton C. Mumma to LTC Bowman, 26 November 1917, Subject: Establishing a School of Musketry at Jacksonville, Florida, National Archives, Records Group 165, File 6657-105.

35. AEF Document No. 1312, *Instructions for the Defensive Combat of Small Units, Infantry, Platoon to Regiment* (Chaumont, France: GHQ, AEF, July 1918), p. 8.

36. National Archives, Records Group 120, Box 101, Entries 16, 17, 18 (Chief of Staff, GHQ, Memoranda, Cablegrams, Telegrams, 1917-19).

37. AEF Document No. 1348, *Combat Instructions* (Chaumont, France: GHQ, AEF, 5 September 1918), p. 3.

38. Ibid.

39. Ibid., p. 7.

40. Ibid., p. 3.

41. Ibid., pp. 4-5, 7.

42. AEF, *Infantry Drill Regulations (Provisional), Army Expeditionary Forces, Part I, 1918* (Chaumont, France: GHQ, AEF, 12 December 1918), p. 80.

43. Ibid., p. 142.

44. Ibid., p. 78.

45. *USA/WW*, III, 350-51.

46. AEF, *IDR, Part I, 1918*, pp. 97-100.

47. Ibid., pp. 100-37.

48. Weigley, *American Way of War*, p. 202.

49. Leonard Ayers, *The War With Germany: A Statistical Summary* (Washington: GPO, 1919), p. 111.

50. James, p. 200.

51. National Archives, Records Group 120, Entry 1241, File 201-56.

52. Kennedy, p. 204.

53. Allan Millett, *The General: Robert L. Bullard and Officership in the United States Army, 1881-1925* (Westport, Conn.: Greenwood Press, 1975), p. 315.

54. National Archives, Records Group 120, Entry 268, File 13.