

“With A Little Help From Our Friends:”¹ The Development of Combat Intelligence in the
American Expeditionary Forces, 1917-1918

DISSERTATION

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¹ The title is inspired by the Beatles song, “With a Little Help From My Friends,” *Sgt. Pepper’s Lonely Hearts Club Band*, 1967.

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Abstract

The United States Army, like its counterparts in Europe, especially the United Kingdom, struggled to achieve recognition as a profession during the late 19th and early 20th centuries. The Army developed educational institutions, improved standards of conduct, and further developed specialized knowledge in areas such as intelligence. US army officers and military officials sponsored these changes knowing and sometimes adapting from similar developments in other armies. When the First World War started in 1914, the American army was close to par with the British army in its development of intelligence as a specialized field and body of military knowledge.

By 1917, Britain and the other belligerents had tremendously advanced their intelligence practices as part of the broader development of warfighting techniques through three years of warfare. Britain's army had expanded twenty-fold, new capabilities such as aerial photography and signal interception had developed and matured, and classic techniques for intelligence collection, such as prisoner interrogations, had been further refined and systemized. US army officers observed some of these developments but lacked resources or support to incorporate them into American practice. By the time the United States entered the war in April 1917, the army had fallen far behind the forces of the other belligerents in its strength, organization, and doctrine.

The American army needed assistance to be successful in battle: it had to grow in size just as the British army had done while at the same time modernizing its practices. Some historians have criticized this American effort. Among those receiving blame for American shortcomings is General John J. Pershing, the commander of the American Expeditionary Forces (AEF). According to these historians, Pershing's rejection of allied trench warfare methods and espousal of his own "open warfare" methods, which were neither clearly defined nor adequately trained, degraded the combat ability of the AEF. While this explanation for the AEF's shortcomings has merit, the AEF actually drew greatly upon allied experiences in a variety of areas, including artillery, aviation, tanks, and intelligence.

American officers adopted allied intelligence organization, methods, and training into the AEF. Allied officers in the British and French missions who traveled to the United States in April and May 1917 provided many details of their organization and methods. Major Dennis E. Nolan, who became the head of AEF intelligence in France, drew upon the information provided in these missions, information collected by military attaches, and information he gained from personal observation of the British and French armies in the field to draw up the first American intelligence regulations. These regulations were in many cases word for word the same as the British Second Army intelligence instructions given to him while at the British front. From battalion level to the AEF General Headquarters (GHQ), Nolan largely adopted British intelligence organization for the AEF. Any differences in doctrine and organization from the British model reflected a choice to employ French methods or preexisting American methods.

Allied officers trained Americans in intelligence methods even after Pershing began Americanizing the trainers. Finally, the American instructors at the Army Intelligence School (AIS) drew upon the British Intelligence School at Harrow-on-the-Hill, England, when they organized the school, developed curriculum, and later added more course content. One British and two French officers served as faculty at the school as well.

The actions of Nolan and other American officers demonstrate that members of the AEF were receptive to adopting a variety of allied methods into American practice. The difference between Pershing's rejection of allied "trench warfare" methods and the AEF's acceptance of allied, especially British, intelligence primarily appears to have been based on the lack of a comparable American intelligence system at the outbreak of war. Similar adoption of allied methods in aviation, armor, and artillery suggest that too much focus has been placed on Pershing's opposition to allied trench warfare doctrine in terms of infantry tactics and not enough on the incorporation of allied methods into almost every other functional area of the AEF.

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List of Abbreviations

AEF	American Expeditionary Forces (US)
AHA	American Historical Association (US)
AIS	Army Intelligence School (US)
BEF	British Expeditionary Forces (UK)
BG	Brigadier General (US)
CB	Counter-battery (UK)
CID	Committee of Imperial Defense (UK)
CIGS	Chief of the Imperial General Staff (UK)
CPT	Captain
DMI	Directorate of Military Intelligence (UK)
DMI	Division of Military Information (US)
DMO	Directorate of Military Operations (UK)
FID	Field Intelligence Department (UK)
FM	Field Manual (US)
FSR	Field Service Regulations (US)
G-1/S-1	Administrative Staff Section (US)
G-2/S-2	Intelligence Staff Section (US)
G-3/S-3	Operations Staff Section (US)
G-4/S-4	Logistics Staff Section (US)
G-5/S-5	Training Staff Section (US)
GHQ	General Headquarters (UK/US)
GO	General Orders (US)
GQG	Grand Quartier General (FR)
GSO	General Staff Officer (UK)
IDR	Infantry Drill Regulations (US)
LT	Lieutenant
LTC	Lieutenant Colonel
QMG	Quarter Master General (UK)
MAJ	Major
MG	Major General
MO	Military Operations Section (UK)
MI	Military Intelligence Section (UK/US)
MID	Military Information Division/Military Intelligence Division (US)
NCO	Non-commissioned Officer

RFC	Royal Flying Corps (UK)
SOS	Scout, Observer, Sniper (UK/US)
SS	Stationary Services (UK)
TO	Tables of Organization (US)
T&S	Topographical and Statistical (UK)
TTPs	Tactics, Techniques, and Procedures (US)
WCD	War College Division (WCD)

Introduction

IN THEIR RELATIONS WITH AMERICAN OFFICERS THE FRENCH OFFICERS MUST ALWAYS USE THE GREATEST TACT: The Americans fully recognize the value of our military experience; for our part, we must not forget that America is a great nation, that the Americans have a national self respect developed and justified by the breadth of vision which they bring to bear upon all the questions which they consider. French officers should treat the officers of their grade, or of a subordinate grade, as comrades who have arrived more recently than they upon the front, and should treat them as little as possible as a master does a scholar. As to officers who are of a higher grade than the French officers, the French should wait to give advice until such advice is requested. Finally, it is necessary, above all, to avoid giving advice, or to make criticism, in public.

PETAIN

On 8 May 1918, General Henri-Philippe Petain issued confidential instructions to the French officers serving in instructor and liaison positions with the American Expeditionary Forces (AEF). Petain, then Commander-in-Chief of the Armies of the North and Northeast, reminded his officers of the importance of the military effort made by the United States and told his officers to prove to their American counterparts that the

French people appreciated the importance of the American contribution to the war.

Pétain went on to urge his officers to employ the greatest tact when dealing with the Americans, avoid giving advice or criticism in public, and endeavor to be personal friends with American officers in order to maintain close collaboration between the two nations. General John J. Pershing, the commander of the AEF, read a copy of the instructions a week later and noted, “this is truly a letter that signifies true cooperation in a spirit of trust and confidence. Preserve it.”²

Pershing’s generous comments expressed optimism regarding the Franco-American relationship at a time when the relationship was actually under some strain. The German army had already conducted two major spring offensives designed to knock Britain or France out of the war before the full military potential of the Americans could be realized. General Ragueneau, Chief of the French Military Mission with the American Army, had been pressing Pershing and the AEF staff to allow American infantry regiments to be placed into French divisions to both train the American units and make up for the lack of French infantry replacements. Ragueneau told Colonel Fox Connor, the AEF Operations Officer (G-3), he doubted the Americans could create competent American staffs for division and higher units. Connor in turn believed many American officers and soldiers were “distinctly disgusted with French tutelage.” He felt the Americans should never consent to allowing French control of preliminary training for AEF units because French methods were not suited to American troops. The head of the

² GHQ AEF War Diary, Item 351j, 8 May 1918, U.S. Army War College, Historical Section, *United States Army in the World War, 1917-1919*, CMH Pub 23-8 Vol. 3 (Washington, D.C.: Center of Military History, 1989), 296-297; hereafter *USAWW*.

Training Section (G-5) of the AEF, Colonel Harold B. Fiske, offered a similar view of the allies. He cited secret French documents which instructed trainers to imbue American units with French methods and doctrine through control of the training of American regiments. Fiske declared tutelage by the French and British had hindered the development of American officers and handicapped the training of the troops.³

This basic conflict over the nature of British and French assistance to the development of the AEF and role American forces would play in the war simmered over a number of times in 1917 and 1918 and even after the war ended. The contrast between allied and American doctrine and training methods has remained a central theme of most works on the AEF in the First World War. This study builds upon previous research on this tension between allied and American methodology by examining what impact, if any, the allies had on American doctrine, organization, training, and schools in the field of intelligence.⁴

There are several reasons the theme of contrasting doctrine and training has remained central to the historiography of the AEF and potentially important to the study of AEF intelligence. First, the link between battlefield performance and strength at the negotiating table meant Britain and France were desperate to have the Americans enter the war, but they did not desire an independent American army which would give President Woodrow Wilson more leverage at the peace table. The allies favored amalgamation, the incorporation of American soldiers and officers in small groups into

³ G-3, GHQ AEF, Fldr. 1302: Memorandum, "Infantry Units Needed in French Divisions," 9 April 1918, *USAWW*, vol. 3, 282-283; HS Fr. File: 428-30.1: Memorandum, "Training," 4 July 1918, *USAWW*, vol. 3, 330-331.

⁴ For a definition and short discussion of intelligence, see Appendix A: Intelligence Definitions and Concepts.

their own armies, while the Americans of course desired their own army. The resulting tension impacted the manner in which the AEF was organized, trained, and equipped. The AEF initially had to rely upon Britain and France for assistance in each of these areas, but Pershing and other American officers came to dislike allied doctrine and accelerated the Americanization of the training. Conflict over implementing allied or American fighting methods is a second reason doctrine and training have been central to examination of the AEF. Finally, assessments of the AEF's performance as less than optimal have heightened interest in the way the AEF prepared for combat.

The relative military strengths of the allies and the United States in 1917 framed the problem of how best the Americans could contribute to victory against the Central Powers. Britain and France could try to influence the US to implement a strategy of amalgamating with the allies because the United States entered the war with an army miniscule by comparison to the major powers in Europe. In April 1917, when the United States declared war, the Regular Army consisted of only 133,000 men, supported by approximately 67,000 National Guardsmen on active duty under Federal service along the Mexican border.⁵ The British army alone was nearly twenty times as large. Even the War Department's initial estimate of 2.2 million men required to send an army to Europe demanded a tenfold increase in the size of the ground forces.⁶

To build an army to ten or twenty times its former size would require massive effort, and General Pershing acknowledged the enormity of the task:

⁵ Leonard P. Ayres, *The War with Germany: A Statistical Survey* (Washington: Government Printing Office, 1919), 16.

⁶ Allan R. Millett and Peter Maslowski, *For the Common Defense: A Military History of the United States of America*, Revised and Expanded Edition (New York: The Free Press, 1994), 350.

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 the 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.⁷

The need for officers to be trained in such basic tasks as supervising the elemental needs of the soldiers--food, clothing, shelter, and health—shows how extensive the training effort would have to be in order to develop new officers to the point at which they could operate staffs for divisions, corps, and armies.

Britain and France already had mobilized their forces, built an extensive organization of schools to train additional personnel, and created an abundance of division, corps, and army staffs. The two countries could and did rationally urge the President of the United States to amalgamate American troops with British and French units in order to maximize the effectiveness of training and minimize the time needed for American manpower to make an impact on the war. Since the United States army possessed no standing corps or army staffs, and had only recently created a permanent division, allied arguments had some merit.

⁷ John J. Pershing, *My Experiences in the World War*, 2 vols. (New York: Frederick A. Stokes, 1931), 1:150.

Nevertheless, General John J. Pershing steadfastly opposed amalgamation of American with British and French units, although initially his argument for doing so was based more on President Woodrow Wilson's political needs and the impact of amalgamation upon American support for the war effort and the morale of the American soldiers. He did not try to argue that an independent American army would become proficient as rapidly as amalgamation would restore the fighting power of the allied armies, but he did need to show the US army could be trained well enough and rapidly enough to make a significant impact on the war.⁸

When Pershing took over as AEF commander, he knew an organized system of training built around general and specialty schools would be "indispensable in an army which had to be created almost wholly from raw material."⁹ Both the French and British armies had already developed extensive schools and training centers for the individual infantry soldier up to staff officers as individuals and in unit training. They offered their services to Pershing and he accepted, although Pershing planned to eventually create his own American led schools and training centers once he had sufficient personnel. In the meantime, the first divisions to arrive in Europe had to train with the allies "pending the organization and development of our own schools."¹⁰ After seeing the allied training

⁸ Maxwell Bailey, *The Amalgamation Controversy, 1917-1918: America's Fight for Independence* (Maxwell Air Force Base: Air War College, 1988); provides one of the few works devoted specifically to the amalgamation controversy. A number of general histories of the American involvement in World War I also cover the topic: see Edward Coffman, *The War to End All Wars: The American Military Experience in World War I* (New York: Oxford University Press, 1968); and John S.D. Eisenhower, *Yanks: The Epic Story of the American Army in World War I* (New York: The Free Press, 2001). Biographers of General Pershing have also weighed in: see Donald Smythe, *Pershing: General of the Armies* (Bloomington: Indiana University Press, 1980); and Frank E. Vandiver, *Black Jack: The Life and Times of John J. Pershing* (College Station: Texas A&M University Press, 1977).

⁹ Pershing, *My Experiences in the World War*, 1:154.

¹⁰ John J. Pershing, "Final Report," (Paris: GHQ, September 1919), *USAWW*, 12:21.

methods in practice, Pershing and other senior American officers criticized allied methods and accelerated the transition to American instructors.¹¹

Once committed to building an independent American army, Pershing had to ensure it was sufficiently capable of fighting and succeeding against the Germans. This required appropriate doctrine, strong organization, and sufficient training to ensure the officers and soldiers could implement the doctrine effectively. An entire section of the AEF General Headquarters (GHQ) supervised the development and Americanization of over twenty army and corps schools which provided specialized training to personnel in the army, including the Army Intelligence School (AIS). After the war, Pershing praised this training effort, saying it “profoundly influenced the combat efficiency” of the army. He characterized the AEF during the war as a “powerful and smooth running machine.”¹²

The officers and soldiers of the AEF did have much of which to be proud of. From April 1917 to the armistice the United States had mobilized four million men and shipped two million to Europe. There were two separate American armies, each with several subordinate corps, commanding close to forty divisions. Had the war continued into 1919, the United States would have had the largest army on the Western front.

The comments given by the Commandant of Army Schools, Brigadier General Frank E. Bamford, at the graduation ceremony for the members of the third and final class of the Army Intelligence School, illustrate the pride Americans had for their contribution to the war.

¹¹ Kenneth E. Hamburger, *Learning Lessons in the American Expeditionary Forces*, CMH Pub 24-1, (Carlisle Barracks, PA: United States Army Center for Military History, 1997), 12, 15.

¹² John J. Pershing, “Final Report,” *USAWW*, 12: 22, 44.

The end has come and we are assembled here this morning for a serious purpose. The occasion is momentous, because it marks the close of a school that has contributed much to the efficiency of the fighting forces of the United States, and has done more than most of you even imagine to insure the final success of the American Army.

Bamford told the graduates that America would undoubtedly have a need for them in the future. The value of intelligence work would again provide “the framework on which all else is hung.” To the graduates who would continue on in military service, Bamford told of “the absolute necessity for a thorough schooling” in all branches of the profession of arms.¹³

Brigadier General Harold B. Fiske, now former head of the Training Section (G-5), AEF GHQ, who had earlier disparaged the allied training effort, had his own comments for the graduates:

It is hardly an exaggeration to say that the most revolutionary developments in modern land warfare have been in the field of Technical intelligence. The trained graduates of the Army Intelligence School have functioned with striking efficiency in the difficult delicate and dangerous tasks involved in moving battles.¹⁴

¹³ “Address of General F. E. Bamford, Delivered at the Graduation of Students at the Army Intelligence School, 11 January 1919,” File Lecture Notes, Intelligence School Miscellaneous Data, Army School of the Line, G-5 Schools, GHQ AEF, Records of the AEF, 1917-1923, Record Group 120 (RG120), National Archives at College Park (NACP), College Park, Maryland, 1.

¹⁴ “Address of General F.E. Bamford, 11 January 1919,” RG120, NACP, 2.

Fiske's praise for the graduates of the AIS was notable but not necessarily unusual in the aftermath of the war.

Historians agreed with Pershing and his subordinates in their assessments of AEF performance until the late 1960s, when Edward M. Coffman and Harvey A. DeWeerd began seriously questioning this rosy assessment of the AEF, which led to a "revisionist" view of the American army as "often inadequately trained, poorly supplied, and inconsistently led."¹⁵ James W. Rainey, one such revisionist, has even gone so far as to say the "AEF succeeded not because of imaginative operations and tactics nor because of qualitative superiority in open warfare, but rather by smothering German machine guns with American flesh."¹⁶ Rainey focuses particularly upon the poor articulation and employment of army doctrine, which reduced the effectiveness of the training the AEF divisions received. Timothy Nenninger offers a number of reasons for poor AEF performance but focuses particularly upon faulty American doctrine and training methods as important factors contributing to the uneven performance of the AEF. Nenninger argues that the "doctrinal ambiguity," created when Pershing's desire to inculcate aggressive action through open warfare tactics met the necessity of mastering trench warfare tactics, resulted in an inadequate training program and subsequent failure on the battlefield.¹⁷ Robert Bruce notes some U.S. combat troops would train in the morning on trench warfare techniques such as using grenades, trench mortars, and trench raiding,

¹⁵ Mark E. Grotelueschen, *The AEF Way of War: The American Army and Combat in World War I* (New York and Cambridge: Cambridge University Press, 2007), 4.

¹⁶ James W. Rainey, "The Questionable Training of the AEF in World War I," *Parameters: Journal of the U.S. Army War College* 22 (Winter 1992-1993), 100.

¹⁷ James W. Rainey, "Ambivalent Warfare: The Tactical Doctrine of the AEF in World War I," *Parameters: Journal of the U.S. Army War College* 13 (September 1983), 34-46; Timothy K. Nenninger, "Tactical Dysfunction in the AEF, 1917-1918," *Military Affairs* 51 (October 1987), 177-178, 181.

while in the afternoon the units would maneuver through the countryside training for open warfare, confusing the soldiers and detracting from their ability to absorb the lessons of each.¹⁸

In *The AEF Way of War: The American Army and Combat in World War I*, Mark Grotelueschen sets out to determine how the AEF planned and conducted its battles and adapted its doctrine to the realities of the battlefield it faced. Of prime importance to Grotelueschen is the “war of ideas waged within the AEF between those who adhered to the traditional, human-centered ideas of the prewar army and those who increasingly appreciated the modern, industrial ideas more prevalent in the European armies.” The two opposing sets of ideas, called at the time open warfare and trench warfare, called for a very different emphasis in the way the AEF would plan and conduct its battles. Each required a different method of training as well.

Grotelueschen believes the trench warfare ideas, “based on the integration of the latest weaponry, use of meticulously prepared attack plans, the maximization of firepower, and the methodical attack of specific enemy units to achieve more modest operational results,” were the most appropriate ones for AEF doctrine to build upon. Although he ultimately agrees with the revisionists in concluding some senior military officers retained ideas about warfare that negatively affected combat operations, he shows many subordinate leaders managed to learn to maneuver and communicate on the

¹⁸ Robert B. Bruce, *A Fraternity of Arms: America and France in the Great War* (Lawrence: University Press of Kansas, 2003), 126-128.

battlefield and to employ massive amounts of firepower in set-piece attacks to achieve success.¹⁹

Grotelueschen's argument illustrates how important examination of AEF doctrine and training methods is to understanding the combat capability of the American army. Petain's memorandum to his advisors and the AEF internal staff memoranda epitomize this war of ideas between trench and open warfare. However, examination of the open vs. trench warfare debate has focused primarily upon infantry and artillery tactics. By and large these revisionists have very little to say specifically about intelligence in the AEF.

The most scathing critique of the AEF in this function actually comes from Colonel Edwin E. Schwien, an instructor at the Command and General Staff School, Fort Leavenworth, Kansas, from 1932-1936. In his book, *Combat Intelligence: Its Acquisition and Transmission*, Schwien asserts that "in practically all of our operations in 1918, our objectives were located on the terrain with little or no reference to the enemy utilization of this terrain, or his possible reactions to our attacks." According to Schwien, front line U.S. battalions, lacking intelligence about the enemy situation, gained information only at the expense of ambush, surprise, and enormous casualties. The operations of the first echelon units of the AEF in the Meuse-Argonne Offensive in 1918 essentially became reconnaissances in force.²⁰

¹⁹ Grotelueschen, *The AEF Way of War*, 5-7.

²⁰ Edwin E. Schwien, *Combat Intelligence: Its Acquisition and Transmission*, (Washington, D.C.: The Infantry Journal, 1936), 2, 83-84.

Schwien does not examine the method of training intelligence officers during the First World War—he is primarily focused on improving intelligence for the future. Yet his statements imply some challenges with intelligence training. His views, those of Grotelueschen, and earlier revisionists raise a number of questions about the positive comments made by Generals Bamford and Fiske concerning the efficacy of intelligence training. Were their statements truly reflective of the impact of the Army Intelligence School, or should they be thought of more as rhetoric worthy of a university graduation speech? How effective was intelligence training at the AIS, or in the other unit schools? Did the doctrinal struggle between open and trench warfare advocates affect intelligence doctrine?

These questions are particularly interesting because the U.S army did not have formal intelligence doctrine or even intelligence regulations prior to World War I. American armies certainly collected combat intelligence in all conflicts leading up to World War I, but the army did not have an “intelligence branch” comparable to infantry, cavalry, or engineers, and did not have official intelligence positions in unit organizations. Intelligence was one of many functions of command, and a commander spent as much or little effort developing intelligence as he wished.

For the officers who recognized the increased need for formal intelligence doctrine and training brought about by the war, the problem was more than just one of choosing between two differing schools of thought. The AEF had to create an intelligence doctrine, either drawing largely upon allied intelligence practices for its own doctrine, or codifying its informal practices, or something in between. In his discussion

about the open versus trench warfare debate, Robert Bruce, in *A Fraternity of Arms*, argues that the Americans completely accepted French artillery, tank, and aircraft training without suggesting any of this instruction was not sound, not aggressive, or not otherwise acceptable for the Americans. In each of these areas the U.S. Army recognized it was far behind its ally. Bruce believes Pershing and American officers held to open warfare because the only field in which Americans could feel they had something of their own to offer--based on experiences from the Indian Wars, the Spanish-American War, the Philippine Insurrection, and the Punitive Expedition—was infantry tactics, particularly mobile infantry tactics. Pershing's open warfare doctrine was therefore also a claim to an American heritage of battle.²¹

Where then, did American intelligence methods come from? If the AEF adopted allied intelligence methods, was there significant opposition to this, or were intelligence methods accepted just as artillery, tank, and aircraft methods had been? Did senior military leaders express concerns with intelligence regulations? How did the U.S. army train for intelligence work?

This study answers these questions by examining the development of combat intelligence in the American Expeditionary Forces (AEF) in Europe from 1917 to 1918, focusing primarily on how the AEF integrated allied methods and organization into its own system along with intelligence training through unit schools and the creation and implementation of the Army Intelligence School (AIS) at Langres, France. It seeks to

²¹ Bruce, *Fraternity of Arms*, 126-128.

determine how well the AEF developed, distributed, and trained doctrine during the First World War.

This study shows American officers adopted allied intelligence methods as their own, and they simultaneously implemented training in combat intelligence methods at several echelons in the AEF. Intelligence offers an example of an area in which Americans offered little resistance to the adoption of allied intelligence methods, in contrast to Pershing's opposition to trench warfare methods. The willingness of American intelligence officers to adapt allied methods into American practice suggests that a discussion of AEF capabilities should not revolve so closely around the infantry component of the trench versus open warfare debate. The AEF had much to learn in order to succeed on the battlefield. The experiences of intelligence officers suggest that in this field at least, the American army was very receptive to allied tutelage. American experiences in intelligence suggest Robert Bruce is correct in his contention that senior American officers such as General Pershing opposed European infantry tactical doctrine yet were at the same time receptive to allied methods in fields where Americans did not possess a formal organization (such as armor and aviation) or lacked expertise in technical changes which occurred during the war (such as field artillery).

Generals Bamford and Fiske were, therefore, correct in their assessment of the importance of the AIS to the AEF during the war, if not entirely correct about the nature of this importance. The Army Intelligence School at Langres, France, made an especially important contribution to the AEF and the post-war army by serving as a focal point for the collection, synthesis, and dissemination of combat intelligence doctrine. The decision

to create the AIS reflected recognition of the need for more formal intelligence training in the AEF. By creating the AIS, the army made it possible for knowledge about intelligence practices to be better collected and recorded for future use. In this sense, the AIS reflected the growing professionalism in the American army as it collected, organized, specialized, retained and disseminated knowledge about warfighting through military education. The creation of the AIS also reflected the generally open-minded views of American officers to new ideas and a willingness to learn from and share with both the associated (British and French) powers.

Training in intelligence did not just happen at the Army Intelligence School. U.S. army divisions received training from their British or French counterparts in the “mentorship” phase of the three part training system Pershing devised. The AEF schools system provided individual training for every echelon from the enlisted soldier in the battalion intelligence group to the field grade officers on division, corps, and army staffs. And, of course, American officers and enlisted men “learned to fight by fighting,” or in this case, they learned intelligence by doing it. The intelligence training effort suffered from many of the same problems of the training effort as a whole: lack of qualified trainers; not enough time to train all of the AEF to the same standard, or train some personnel at all; and incomplete coordination between the different training agencies.

This work will explain these findings beginning with an outline of pre-WWI intelligence knowledge in the army and continuing through the training of AEF divisions in 1918. Prior to American entry into World War I, the U.S. Army lacked formal, specific tactical intelligence doctrine. Many American officers possessed practical

experience in collecting, analyzing and disseminating intelligence from the Indian Wars, Spanish-American War, and the Philippine Insurrection. In some cases, commanders in the Philippines developed intelligence organizations to manage the analysis and dissemination of intelligence. Commanders also recognized the need to conduct reconnaissance and security operations in order to gain information about the enemy and prevent the enemy from gaining information about one's own forces. The War Department created a Division of Military Information in 1885 to collect strategic intelligence concerning potential enemies in future conflicts.²² Despite these first efforts, the Army did not possess intelligence regulations or develop permanent intelligence staff positions on unit staffs. Chapter 1 outlines the development of American intelligence doctrine and organization leading up to the First World War and compares it to the development of British intelligence over the same time period.

To a varying degree, each of the belligerents in World War I possessed rudimentary intelligence doctrine prior to the war. The growth in the size of armies in World War I, the tactical and operational stalemate on the Western Front (and elsewhere to a lesser degree), and developments in technology all influenced the development and specialization of combat intelligence doctrine by the belligerents. By 1917, when the United States entered the war, the military forces of each nation had developed specific intelligence doctrine and modified their unit organizations in order to manage the large volume of information collected for analysis and dissemination. Chapter 1 also sketches

²²Mark B. Powe, "The Emergence of the War Department Intelligence Agency: 1885-1918," (Master's Thesis, Kansas State University, 1975): 16-17.

the development of intelligence doctrine by the Britain through 1917 when the U.S. entered the war.

Upon declaration of war, American officers recognized their army's lack of intelligence doctrine and organization. These officers examined French and British intelligence methodology, questioned allied intelligence officers, and developed an American intelligence organization and doctrine based on the best and most applicable practices of their associated powers. Chapter 2 highlights the American effort to catch up in intelligence methods in the context of the development of the AEF through the first few months in Europe. Chapter 3 compares American intelligence doctrine in detail with the corresponding British instructions to establish how extensively the Americans copied from British practice. Chapter 4 continues with an examination of American intelligence organization as it developed primarily from the British organization.

Having developed intelligence doctrine and a system of organization at each echelon, the AEF needed to train personnel in the different intelligence tasks. Once the AEF created the schools system to train the incoming American soldiers, army officers ensured intelligence training was included. The Americans also employed allied instructors at all echelons to provide intelligence training, and continued to seek the advice and assistance of allied intelligence personnel even after most training was Americanized. Chapter 5 examines intelligence training in the AEF from the First Division's experience with the French to the development of Army level schools such as the School of the Line and General Staff College.

A significant contributor to the successful implementation of the AEF schools system was the development and improvement of branch schools and formal officer education at the end of the 19th century and beginning of the 20th century. Nearly all of the schools developed in Europe during the war had antecedents in the branch schools within the United States and the command and staff schools at Fort Leavenworth, Kansas. Army officers could draw upon this expertise for much of the schooling required for combat in Europe. The intelligence school, on the other hand, did not have a direct predecessor prior to the war. The creation of the Army Intelligence School was thus doubly difficult. Chapter 6 examines how the Americans again drew from allied experience in order to update American intelligence practice and build toward an effective intelligence school.

Although it did not begin operating until July, 1918, the AIS became the keystone of the intelligence training “system.” Once created, the Army Intelligence School became the focal point for the collection, synthesis, and dissemination of tactical intelligence doctrine. In this regard, the AIS assisted in spreading tactical intelligence techniques and procedures through the AEF. Chapter 7 covers the AIS in detail.

The AEF experience with intelligence in the Great War demonstrates how American officers deliberately and successfully adapted allied intelligence methodology into the AEF and ensured the survival of intelligence doctrine after the war. Examination of the development, training, and execution of combat intelligence doctrine in the AEF shows that American officers were receptive to adapting British and French intelligence methodology for their own use. The Army’s lack of formal intelligence doctrine before

the war, coupled with the great advances made by the allies during the war, paved the way for a very significant adoption of British intelligence organization and methods into the AEF. Chapter 8 assesses the impact of allied methods on intelligence.

By the end of the First World War, the AEF had developed the American army's first formal specific intelligence regulations; organized intelligence sections and units; and trained divisions, corps, and armies in the intelligence doctrine, all with the help of the allies. The common conception of Pershing and other senior leaders as resistant to allied methods appears to overlook intelligence and other areas where Americans welcomed all the help they could get.

Chapter 1: Development and Formalization of Military Intelligence, 1854-1917

The development of intelligence from the mid 19th century to the First World War can be understood as part of the larger process of professionalization of military forces and formalization of knowledge about warfighting. The experiences of the European powers and the United States in the late nineteenth and early twentieth centuries highlight a transition from informal to formal codification of military functions as part of the growth of professionalism in military forces. Samuel Huntington compares this process to the development of other professions such as medicine and law. Characteristics of professions include standards for entry and conduct, the development and dissemination of a recorded body of knowledge, formal education for disseminating knowledge, and relative autonomy of the profession from outside control of these standards and knowledge.²³

These characteristics instantiated in armed forces through the creation of entrance exams and schools for training cadets and officers, publication of regulations and manuals, and the development of national general staffs to provide command and control. Although “apprenticeship” education provided through on the job training and

²³ Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge, MA: Harvard University Press, 1985), 8-18; Allan R. Millett, *The General: Robert L. Bullard and Officership in the United States Army, 1881-1925*, Contributions in Military History No. 10 (Westport, CT: Greenwood Press, 1875), 3-4.

mentorship of junior by senior officers continued, formal education increased in amount and importance. Formalization facilitated dissemination: ideas about warfighting published in manuals, regulations, journals, and memos could more rapidly and completely reach the leadership of a large armed force than by word of mouth, especially a large armed force with the majority of its troops and leaders consisting of reservists. European powers professionalized at varying speeds and to varying degrees, but most ended up by 1914 possessing formal institutions in their permanent national level general staffs, formal education through military schooling for ranks from cadets to senior staff officers, and formal warfighting knowledge in a series of regulations outlining the way armies should fight.

The United States Army underwent a similar process of professionalization, albeit more slowly than most European Powers. Prussia (1806), Russia (1863), France (1874), Austria-Hungary (1875), and Italy (1882) all created a permanent national level general staff before the United States did with the passage of the General Staff Act of 1903.²⁴ Prussia (1810), France (1818), Russia (1818), Austria (1852) and Britain (1857) created staff colleges before the American army established its first school at Fort Leavenworth in 1881.²⁵ William Odom has called Baron von Steuben's 1779 *Regulations for the Order and Discipline of the Troops of the United States* the first capstone manual for

²⁴ See note 4 in Thomas G. Fergusson, *British Military Intelligence, 1870-1914: The Development of a Modern Intelligence Organization*, Foreign Intelligence Book Series (Frederick, MD: University Publications of America, 1984), 13. Britain did not establish a permanent General Staff until 1906.

²⁵ Fergusson, *British Military Intelligence*, 26, 69; Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881-1918* (Westport, CT: Greenwood Press, 1978), 22. The Leavenworth schools did not truly provide graduate level military work designed to produce trained staff officers until their reorganization into the Infantry and Cavalry School and the Army Staff College beginning with the 1904-1905 academic year, Nenninger, *Leavenworth Schools*, 68-79.

warfighting for the U.S. Army, although the 1905 *Field Service Regulations*, published by the War Department, may better deserve distinction as the first official army manual describing how American leaders thought the army should fight.²⁶ Examination of the development of intelligence demonstrates the process of specialization which occurred as the army professionalized. Between 1850 and 1917, armies began producing intelligence knowledge through publication of regulations and tactics, techniques, and procedures; creation of permanent intelligence organizations; creation of schools specifically devoted to teaching intelligence methods; and other intelligence specific training.²⁷

The experiences of the British army from the Crimean War and the American army from the Civil War to the First World War highlight the development of intelligence as a specialized field in the 19th and 20th centuries. The British army was similar in some respects to the American army in that it was a small volunteer force of a power whose first line of defense rested upon the navy, unlike the French or German armies. The armies were also similar in their focus suppressing native populations within the territories controlled by each nation. The major difference in conditions between the two countries was Britain's centuries long status as an empire and world power. A comparison of the development of formal intelligence knowledge and organizations in

²⁶ William O. Odom, *After the Trenches: The Transformation of U.S. Army Doctrine, 1918-1939*, Military History Series Number 64 (College Station, Texas: Texas A&M University Press, 1999), 5-6.

²⁷ John Ferris sees 1914 as the start of the transition period in the development of intelligence as a large, permanent organization and bureaucracy with a developing body of knowledge of all sources of collection, see John R. Ferris, *Intelligence and Strategy: Selected Essays*, Studies in Intelligence Series (London: Routledge, 2005), 281.

the two armies should highlight in relative terms how well the U.S. Army had developed its intelligence apparatus by April 1917.²⁸

Regulations and Tactics, Techniques, and Procedures (TTPs)

Britain's long acquaintance with the defense of an empire had produced a number of military figures with excellent intelligence systems, such as the Dukes of Marlborough and Wellington. The systems these men created unfortunately disappeared at the end of each conflict, in part because the British Army did not have official regulations for the organization and activities of intelligence personnel. Succeeding commanders had to relearn intelligence methods, with varying results. The British Army's poor intelligence effort at the start of the Crimean War is an excellent illustration of this problem. No organization was able to provide intelligence on the geography of the Crimea—Lord Raglan's best map of the region had actually been obtained by Major Thomas Jervis while on holiday in Belgium. For Marlborough and Wellington, the Quartermaster General (QMG) served as supervisors of the majority of the intelligence effort. Lord Raglan's supply situation was so challenging that neither of his first two heads of the QMG provided much in the way of intelligence support. Charles Cattley, appointed Lord Raglan's interpreter at the start of the war, gradually took over intelligence duties since he could speak Russian; Lord Raglan finally made him the official head of intelligence almost a year after the war started. Eventually the British developed an efficient tactical intelligence system, but it was dismantled, as it had been in previous wars, after the end

²⁸ While the two nations share many characteristics, British doctrinal development in the 19th century is also relatively well documented.

of hostilities.²⁹ It probably did not help that the British actually had a regulation *preventing* field commanders from establishing intelligence departments until war was declared or when hostilities appeared imminent in an overseas theater.³⁰

In the absence of official intelligence regulations, discussion of intelligence methods emerged in commercial publications. *The United Service Magazine* (first published in 1829), and the *Journal of the Royal United Services Institution* (RUSI), first published in 1858, offered articles about contemporary issues of tactics and strategy in the British army as well as developments in foreign powers such as France, Prussia, and the United States. These journals did not often provide much in the way of specialized intelligence information.³¹ Books provided more specific information. First published in 1869, *The Soldiers Pocketbook for Field Service* included instructions for establishing and running an intelligence department. The fifth edition, published in 1886, was the most up-to-date version available at the start of the second Boer War. It included instructions for collecting, analyzing, and disseminating intelligence, though most of the focus was on different types of intelligence collection. Colonel Charles E. Callwell's *Small Wars: Their Principles and Practice* also included a chapter on intelligence. Other authors published books devoted exclusively to the topic of intelligence. Colonel George A. Furse's *Information in War*, published by a commercial press in 1895,

²⁹ Trevor Royle, *Crimea: The Great Crimean War, 1854-1856* (New York: Palgrave Macmillan, 2000), 186-189, 195-199; Fergusson, *British Military Intelligence*, 136-138; and see especially Stephen M. Harris, *British Military Intelligence in the Crimean War, 1854-1856* (London and Portland, OR: Frank Cass, 1999).

³⁰ Fergusson, *British Military Intelligence*, 136-139.

³¹ Fergusson, *British Military Intelligence*, 27; the June 1885 edition of the *United Service Magazine* did publish an article on "The Military Intelligence Departments of England and Germany in Contrast," Fergusson, *British Military Intelligence*, 256.

provided a detailed treatment of intelligence collection, analysis, and dissemination, though collection again received the majority of coverage.³²

Commercial publication of books of interest to military officers was a common trend in the late 19th and early 20th centuries among all the major powers. The relative prestige and position of the authors within the military hierarchy lent their works significant status. Thomas Fergusson has gone so far as to say that General Wolseley's *The Soldiers Pocketbook for Field Service* "represented official British Army doctrine."³³ However authoritative officers considered the book to be in terms of reflecting the army's doctrine, it and the other books remained informal in the sense that they were not "official" government publications. Nevertheless, they served to spread ideas about intelligence to those officers who chose to purchase and read them. Inasmuch as they "codified" doctrine, even informally, and helped achieve widespread acceptance of ideas about warfighting, these books could serve as doctrine.

The British Army did produce a number of official documents concerning intelligence through lectures, instructions, and section standard operation procedures (SOPs) leading up to World War I. The Boer War proved to be the watershed event for the development of tactical intelligence doctrine. Just as the army's field intelligence system had been dismantled following the end of the Crimean War, the Field Intelligence Department in South Africa disappeared within weeks following the Treaty of Vereeniging.³⁴ The third and final director of military intelligence (DMI) in South

³² Fergusson, *British Military Intelligence*, 139-141, 144 note 2, 146 note 37.

³³ Fergusson, *British Military Intelligence*, 146 note 37.

³⁴ Fergusson, *British Military Intelligence*, 167.

Africa, Lieutenant Colonel David Henderson, was determined not to let the lessons gained in the war evaporate along with the organization. He wrote *Field Intelligence – Its Principles and Practice*, based in part on his personal experiences. *Field Intelligence* contained eight chapters which covered reconnaissance, examination of persons and documents, secret service organizations, the use of guides, evaluation and dissemination of information, report writing, and counterintelligence.³⁵ In contrast to Wolseley's privately published *Pocket-Book for Field Service*, only a portion of which was devoted to intelligence topics, *Field Intelligence* was completely devoted to the subject, and it was published in 1904 by the General Staff of the War Office. Henderson's book received official sanction "as the textbook for the study of that important branch" by Lieutenant General Sir Neville Lyttelton, the first chief of the General Staff.³⁶

Three months later, the General Staff produced "Regulations for Intelligence Duties in the Field." Almost all of the topics covered in *Field Intelligence* were included in the regulations, but the regulations focused more on administration and organization of the tactical intelligence system from a legal standpoint. Thus, almost half of the twenty-eight pages covered procedures for using money to fund secret service operations. The regulations prescribed the minimum numbers of General Staff officers required for intelligence duties in wartime. They also directed the creation of an Intelligence Corps

³⁵ Fergusson, *British Military Intelligence*, 174-178.

³⁶ Fergusson, *British Military Intelligence*, 173. The 1871 version of Wolseley's *Pocket-Book for Field Service* contains one three page section on the "Intelligence Department" and approximately twenty-two pages on reconnaissance and surveillance out of a total of 344 pages; Colonel Sir Garnet J. Wolseley, *The Soldier's Pocket-Book for Field Service*, Second Edition Revised and Enlarged (London and New York: MacMillan and Co, 1871), vii-ix.

which would provide the administrative headquarters for interpreters, guides, scouts, and other specialists supporting the intelligence effort in wartime.³⁷

Henderson later published *The Art of Reconnaissance*, which updated his earlier work with a discussion of the challenges of gaining information based on observations of the Russo-Japanese War and developments in military aviation. *The Art of Reconnaissance* was added to the suggested reading list for officers attending Eastern Command intelligence courses beginning in 1908, but *Field Intelligence* and the “Regulations for Intelligence Duties in the Field” remained the authoritative works on intelligence in the British Army. Colonel James E. Edmonds, then head of the War Office MO 5, Special Section, of the Directorate of Military Operations, identified these two books as the only official works on intelligence in the British army. They would remain the basis of British tactical intelligence doctrine when the First World War started in 1914.³⁸

When Colonel Dennis E. Nolan, the head of the American Expeditionary Forces Intelligence Section (AEF G-2), arrived at the BEF headquarters in the summer of 1917, he noted the general headquarters did not have intelligence regulations, although the British had provided him with a copy of the Second Army’s draft intelligence regulations before he began his tour of the allied intelligence sections.³⁹ Of course the BEF did have regulations and doctrine: it had the *Field Intelligence* book and the regulations published

³⁷ Fergusson, *British Military Intelligence*, 179-181.

³⁸ Fergusson, *British Military Intelligence*, 182-183, 186-187.

³⁹ First Draft of Chapter on Military Information Division, G-2-A, Folder Second Draft of his proposed history of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6-7.

in 1904 which the BEF took to the field in 1914. However, intelligence methods had expanded so much between 1914 and 1917 that new versions needed to be written.

Unfortunately, the BEF GHQ never managed to publish an updated intelligence doctrine during the war, although one attempt was made to produce a manual in 1918. Lower echelons did attempt to produce written guidance for intelligence during the war: the 1st Canadian Division published its first “Instructions Regarding Intelligence” in August 1916; the Second Army produced its first set of regulations in March 1916 and then updated them in May 1917; and XV Corps produced its own intelligence regulations in March 1918.⁴⁰

Although the British Army did not publish a new overarching intelligence doctrine until after the war ended, it did advance techniques, tactics, and procedures for intelligence collection, analysis, and dissemination. The War Office produced “Instructions for the Collection and Transmission of Intelligence by Troops” in September 1915, which included, among other items, directions on the processing and interrogation of prisoners of war.⁴¹ The GHQ produced hundreds of pamphlets outlining training for a variety of topics. These “Stationary Services” or S.S. pamphlets included items such as SS 381, “Collection of Information Regarding the Enemy,” dated October 1915, which explained how enemy equipment could be used for unit identifications.⁴² As the BEF developed its aerial photography capability, it produced new and updated

⁴⁰ James Beach, “British Intelligence and the German Army, 1914-1918,” (Ph.D. Diss., University College London, 2004), 132-133.

⁴¹ Beach, “British Intelligence,” 28; see note 55.

⁴² Beach, “British Intelligence,” 40; see note 125.

manuals outlining how to collect, interpret, and disseminate aerial photos and the information gained from the photos.⁴³

By the time the United States entered the war in April 1917, the British Army had moved far beyond its 1904 *Field Intelligence* textbook and General Staff “Regulations for Intelligence Duties in the Field” in terms of recorded intelligence practices. If the army did not have an overarching intelligence manual to replace either of these two, it did have a plethora of materials outlining intelligence techniques, tactics, and procedures developed during the war. When Nolan traveled to the BEF to observe intelligence in action, the British could at least offer him the Second Army’s “Instructions for Intelligence Duties” along with copies of intelligence summaries and any other intelligence products routinely produced by the BEF.

Nolan traveled to the British and French armies soon after the AEF staff arrived in France because the U.S. Army did not have any intelligence regulations, and Nolan knew that the allies had developed sophisticated collection and analysis methodology during the war. The Americans in 1917 had essentially progressed to the level of the British back in 1903. Commercial publishing of books and journals about warfighting in America mirrored that of Britain.⁴⁴ The infantry, cavalry, and artillery branches each published their own journals in the period leading up to America’s entry into the war. The *Journal of the Military Service Institution of the United States* followed the name and example of the journal in Britain. As in Britain, these journals occasionally provided

⁴³ Beach, “British Intelligence,” 76-77.

⁴⁴ The Americans also benefitted from being able to purchase the books published in Britain. Furse’s, *Information in War*, for example, was received by the United States Military Academy Library, based on the marking on the title page of the text currently in the library, on 16 November 1899. Colonel George A. Furse, *Information in War: Its Acquisition and Transmission* (London: William Clowes & Sons, 1895), i.

articles relating to intelligence. Lieutenant Colonel George P. Scriven's, "The Transmission of Military Intelligence," is one illustration of these articles.⁴⁵

The most notable effort at publishing intelligence related materials came from Captain Arthur A. Wagner, an instructor at the Staff College in Fort Leavenworth, Kansas. Wagner wrote *The Service of Security and Information* in 1893 and followed up with *Organization and Tactics* in 1895. His first book primarily covered intelligence collection through the employment of infantry and cavalry in reconnaissance and surveillance. His second was centered on proper tactical methods and appropriate organizational structure for the army as a whole. In this book, Wagner also issued a plea for assigning a permanent staff intelligence officer in unit organizations. Though commercially published, these works were "officially authorized by the War Department as a Standard in the Examination of Officers of the Regular Army for Promotion," which was printed on the title page.⁴⁶ They thus achieved similar sanction as had Wolseley's *Pocketbook* or Henderson's *Field Intelligence*.

The U.S. Army also published official books which addressed intelligence as part of the larger discussion of infantry and cavalry reconnaissance and surveillance. In 1905 the American army published its first *Field Service Regulations*.⁴⁷ Their homage to Wagner was clear in the designation of the two intelligence related chapters as the "Service of Security" and the "Service of Information." The 144 numbered regulations in

⁴⁵ George P. Scriven, "The Transmission of Military Intelligence," *Journal of the Military Service Institution of the United States* Vol. 41, No. 148 (July-August 1907), 58-84.

⁴⁶ Nenninger, *Leavenworth Schools*, 41-43; Arthur L. Wagner, *The Service of Security and Information*, 2nd Edition (Washington, D.C: John J. Chapman, 1983); Arthur L. Wagner, *Organization and Tactics*, 7th Edition (Kansas City: Hudson Kimberly Publishing, 1906); Marc B. Powe, *The Emergence of the War Department Intelligence Agency: 1885-1918*, Instant Publishing Series (Manhattan, Kansas: Military Affairs, 1975), 29.

⁴⁷ Odom, *After the Trenches*, 5-6.

these two chapters constituted about 18% of the total numbered regulations, but almost all of these described the use of infantry and cavalry units for reconnaissance and surveillance. The entire regulations concerning the operation of a covert intelligence network consisted of the following paragraph:

When the enemy has adopted guerrilla warfare, the search for information requires special importance. An efficient secret service under keen officers should be organized without delay.⁴⁸

Similar short statements covered use of spies, examination of prisoners and documents, and operational security. The one nod to developing technology was regulation #86, which covered the use of captive balloons by the Signal Corps at corps or army level under the general supervision of the chief of staff.⁴⁹ Wagner had described the roles of intelligence officers in administering the intelligence service, field post office, secret service, and reconnaissance, as well as the “collection, preparation, and distribution of military information, including maps and sketches” in *Organization and Tactics*.⁵⁰ The 1908 *Field Service Regulations*, unfortunately, did not list an intelligence officer at brigade or division level or discuss intelligence officers and their duties at higher echelons.⁵¹

⁴⁸ U.S. War Department, *Field Service Regulations, 1905 (with Amendments to 1908)* (Washington, D.C.: GPO, 1908), 39.

⁴⁹ *FSR 1908*, 47.

⁵⁰ Arthur L. Wagner, *Organization and Tactics*, Seventh Edition (Kansas City, MO: Franklin Hudson Publishing Co, 1906), 27.

⁵¹ *FSR 1908*, 12, 14-18.

Between 1905 and 1917, the army produced six versions of the *Field Service Regulations*, not including errata updates. The incremental changes in each succeeding version did bring the American army closer to that of the British. The 1913 *FSR*, like its predecessors, did not identify specific intelligence officers, but it did require the chief of staff of an army or separate field command to establish an information division to receive all information about the enemy and the theater of operations.⁵² The 1914 version of the *FSR* called for a third section of the general staff, the intelligence section, run by one of the Chief of Staff's assistants.⁵³ The 1916 update included regulations for the employment of balloons and aircraft for reconnaissance, observation of artillery fire, and to prevent hostile reconnaissance.⁵⁴

The *Field Service Regulations* gave the U.S. Army an official doctrine, albeit one similar to Wolseley's *Pocket-Book For Field Service* in terms of the proportion of its intelligence content. Nevertheless, when the U.S. entered the war, the army lacked any formal intelligence doctrine similar to Henderson's *Field Intelligence* textbook or the General Staff "Regulations for Intelligence Duties in the Field," both of which had been produced in 1904. Between 1914 and 1917, the British army had made great advances in intelligence tactics, techniques, and procedures. Many of these advances had been captured on paper in some form even though the BEF GHQ had yet to write an updated overarching intelligence manual. A couple sentences in the American *Field Service*

⁵² U.S. War Department, *Field Service Regulations 1913 (With corrections to May 21, 1913)* (Washington, D.C.: GPO, 1913), 17, 47.

⁵³ N. F. McClure, "Military Intelligence: Its Importance in War," Conference, Staff Class, Military Art Department, 7 September 1914, USMA, 1. (Cullum File).

⁵⁴ U.S. War Department, *Field Service Regulations, 1914 (Text corrections to February 4, 1916 Changes No. 4)* (New York: Army and Navy Journal, 1914), 19-20.

Regulations about using airplanes for reconnaissance barely scratched the surface of these advances. This war induced widening of the gap between the development of British and American intelligence doctrine would naturally be replicated in the two countries' organizations as well.

Strategic Organization

Just as the outbreak of the Crimean War in 1854 found the British Army sorely lacking in written intelligence doctrine, the army found itself also lacking an organization to provide both geographic information and knowledge of the organization and strength of the enemy forces in the region. Up to this point, the British Foreign Office and Diplomatic Service had primary responsibility for collecting relevant information about a country's war-making capacity. Ambassadors and other diplomats reported on their assigned nation's overall war capability, strength and capabilities of the armed forces, and level of preparation for war. This method had its drawbacks, so other countries began assigning officers to diplomatic missions to collect information. France posted its first military officer to the Vienna embassy in 1806. Prussia placed its first officer in Paris in 1830. Britain began to rectify the shortage in knowledge of friendly and enemy forces with the posting of liaison officers to the allied military headquarters. Beginning in 1857, these officers were called attaches, and in 1864 the Foreign Office began officially appointing military attaches to major European capitals.⁵⁵

⁵⁵ Fergusson, *British Military Intelligence*, 6, 28.

Attaches collected information and forwarded it to the Foreign Office, but it still needed to be analyzed and the resultant intelligence disseminated to those who needed it. As a result of the poor intelligence the British possessed at the start of the Crimean War, the War Office created the Topographical and Statistical (T&S) Department in 1855 to produce cartographic materials and maintain information collected on the armed forces of foreign powers. It initially performed its cartographic duties well, but there were not enough personnel assigned to perform any useful analysis and dissemination of reports received about foreign forces. By 1870 even the topographic section had declined to the point that its new director, Captain Charles W. Wilson, wrote a memorandum critiquing the department which reached the Secretary of War, Edward Cardwell. With Cardwell's support, and the impetus of the Franco-Prussian War as inspiration, Wilson revitalized the T&S Department. In 1873, Cardwell turned the T&S Department into the Intelligence Branch, placed in 1874 under the Quartermaster General's Department.⁵⁶

The Intelligence Branch initially contained one topographic section and four sections collecting, analyzing and disseminating information about friendly, colonial, and foreign military forces. By 1878 there were eight permanent and twelve attached officers in the branch, along with twenty-one non-commissioned officers and civilians. That same year, the Indian army created its own Intelligence Branch and organized it along the same lines.

The fortunes of the branch waxed and waned in the subsequent years depending on the qualities of the head of the branch and whether the army was conducting active

⁵⁶ Fergusson, *British Military Intelligence*, 22-25, 39-48.

operations. For example, between 1878 and 1886 many of the permanent officers of the branch departed to serve as intelligence staff members on active campaigns and were not replaced, reducing the branch's effectiveness. After another period of revitalization and reorganization, the redesignated Intelligence Division again suffered during the Boer War. The intelligence division changed name and organizational structure three more times between 1901 and 1914 to better allow the War Office to conduct contingency planning for future operations. The end result of all this reorganization was a Directorate of Military Operations (DMO) no longer exclusively devoted to the gathering, analysis, and dissemination of intelligence. While that remained a major function of the organization, a new section created war plans for future conflicts. The head of the DMO became responsible for both the accumulation of intelligence and strategic war planning with the Committee of Imperial Defense (CID).⁵⁷

Historians have called the reorganization of the intelligence department into the DMO as a positive development in that intelligence could now be turned into something useful for contingency planning and mobilization.⁵⁸ Yet it could also appear to be a negative development because the intelligence section, upon deployment to France, assumed the same subordinate position to the operations section of the BEF staff as it maintained within the DMO. It did not help that the intelligence and operations sections operated on mutual distrust and rivalry. An excellent illustration of the prevailing attitude toward the intelligence section in the fall of 1914 occurred in October as Field Marshal Sir John French was maneuvering the BEF to attempt to fall on the exposed

⁵⁷ Fergusson, *British Military Intelligence*, 59-62, 69-71, 80, 96, 116, 121-122, 202, 250-252.

⁵⁸ Fergusson, *British Military Intelligence*, 122.

flank of the German Army. Colonel Macdonogh, then head of the BEF intelligence section, provided his usual brief, outlining the disposition and movements of identified German units. On this particular day, three new German Reserve Corps had been identified moving directly toward the BEF. French, seeing the new units on the map became enraged and exclaimed “How do you expect me to carry out my plans if you will bring up these bloody divisions!”⁵⁹

After he was promoted to Chief of Staff in the BEF, Lieutenant General Sir William Robertson reorganized the BEF GHQ so that the Intelligence section was coequal with the Operations Section. Robertson had served in intelligence positions periodically throughout his career: he served as part of the Indian Intelligence Branch at Simla, on the intelligence staff of the Chitral Relief Force, in the intelligence staff at the War Office, and Head of the Foreign Intelligence Section of the War Office. These experiences, along with his time as Commandant of the Staff College at Camberley, surely made him particularly sensitive to the relationship between intelligence and operations.⁶⁰ Upon his promotion to Chief of the Imperial General Staff (CIGS) in November 1915, he changed the War Office organization to mirror that of the BEF staff, splitting the DMO into the Directorate of Military Operations and the Directorate of Military Intelligence.⁶¹ The MO intelligence sections became MI intelligence sections,

⁵⁹ Michael Occleshaw, *Armour Against Fate: British Military Intelligence in the First World War* (London: Columbus Books, 1989), 27.

⁶⁰ Field Marshal Sir William R. Robertson, *From Private to Field Marshal* (Boston and New York: Houghton Mifflin Co, 1921), ix-xiii, 291-221.

⁶¹ Occleshaw, *Armour Against Fate*, 28-29; Robertson, *Private to Field Marshal*, 242-244, 249-251; Beach, “British Intelligence,” 88-89.

and as the war continued Major General Macdonogh added new sections in sequence, reaching MI9 (Postal Censorship) by 1917.⁶²

The United States War Department followed a similar, if delayed, pattern of development as the War Office in Britain in its development of formal intelligence organizations. The War Department became more interested in foreign military forces after the American Civil War, in part because its members remembered the additional danger during the civil war of conflict with Britain or France, or both. As a result, the department resumed sending officers abroad to report on the military forces of the major European powers, with Emory Upton perhaps the most notable of the Americans who went abroad. The War Department soon realized the value of officers being stationed overseas for extended periods of time to gather information, and began detaching officers from their units to do so. These officers had to support their travels with their pay and personal wealth without additional support from the army. They did not have truly official status until Congress passed a law in 1888 authorizing the appointment of military attaches to diplomatic missions, roughly thirty years after Britain had done so. The War Department also continued to send officers on observer missions. Most notably, John J. Pershing served on attaché duty in Japan and traveled to Manchuria as a military observer to report on the Russo-Japanese War.⁶³ In 1906, Captain Dennis E. Nolan watched army maneuvers in France as part of a military observer delegation.⁶⁴

⁶² Fergusson, *British Military Intelligence*, 252; Occleshaw, *Armour Against Fate*, 390-393.

⁶³ Donald Smythe, *Pershing: General of the Armies* (Bloomington, IN: Indiana University Press, 1986), 2.

⁶⁴ Karen Kovach, *The Life and Times of MG Dennis E. Nolan, 1872-1956: The Army's First G-2* (Fort Belvoir, VA: History Office, Office of the Chief of Staff, U.S. Army Intelligence and Security Command, 1988), 18.

The dispatching of the first attaches in 1889 greatly assisted the development of the Military Information Division (MID), which had been established in 1885 by the Adjutant General's Office with the purpose of collecting and collating information on military-related matters in the U.S. and abroad.⁶⁵ The MID was the first permanent organization in the army specifically focused on intelligence issues. In 1892, the Secretary of War reorganized the division, tasking it with directing the attaches, collecting information on both the US and foreign countries, disseminating intelligence products and maps, monitoring the militia, preparing militia inspectors, formulating mobilization plans, and even preserving military relics in a museum. The division divided into four branches in 1893 to support the different tasks assigned, with a Progress in Military Arts Branch, Northern Frontier Branch, Spanish American Branch, and Militia and Volunteer Branch.⁶⁶

Between 1893 and 1917, the MID experienced some of the same successes and challenges as British War Office Intelligence did leading into World War I. When motivated, competent officers ran the division, such as Major Arthur L. Wagner, the fortunes of the organization waxed. Wagner, former instructor at the Leavenworth schools and author of *The Service of Security and Information*, took over the head of MID just prior to the Spanish-American War. He quickly expanded number of officers detailed from units to be attaches, and he led the MID effort to collect pertinent information on Spanish possessions and forces as war neared. Once the war started the

⁶⁵ Marc B. Powe, *The Emergence of the War Department Intelligence Agency: 1885-1918*, Instant Publishing Series (Manhattan, Kansas: Military Affairs, 1975), v-viii.

⁶⁶ John Patrick Finnegan, *Military Intelligence*, Army Lineage Series (Washington, D.C.: Center of Military History, 1998), 13-14.

MID provided some intelligence to units preparing to deploy, though these efforts were not always successful, as when the V Corps commander refused the offer to set up a military information division to support the campaign. But Wagner could count other successes, including the development of an MID section for operations in the Philippines during the insurrection.⁶⁷ However, the Spanish-American War on the whole ended up disrupting the efforts of the MID, just as active campaigns disrupted the British Intelligence Division; the U.S. army officers left attaché and MID duties just as British officers had done to return to their units and participate in the fighting, leaving only two officers and ten civilian clerks in the MID when the war ended.⁶⁸

In contrast to the generally positive results from reorganization in Britain, American creation of the general staff and later reorganization of the Military Information Division proved to be most detrimental to the MID's effectiveness. When Secretary of War Elihu Root created the Army General Staff in 1903, the MID continued in existence under a new name, the Division of Military Information, but it was tasked with supporting the War College Division in formulating strategic war plans, and it was placed under the War College Division in 1908. These changes took the Division away from collecting, analyzing and disseminating intelligence information into supporting War College requirements. Captain Ralph Van Deman, who had earlier served in the Military Information Division of the Philippines, served in the War Department Division from 1907-1910, where he saw the beginning of the decline of the intelligence work. By

⁶⁷ Powe, *Intelligence Agency*, 28-33.

⁶⁸ Finnegan, *Military Intelligence*, 14.

the time he returned to the MID in 1915, Van Deman found no intelligence work being done at all.⁶⁹

Just as Captain Charles Wilson had begun the revitalization of British strategic intelligence in 1870 by writing an influential two page memorandum, Van Deman began the revitalization of the Military Information Division with the submission of two memorandums to his superior officers. It took another year and America's entry into World War I before Van Deman was able to put his plans into action, but by May 1917 he received the backing of the Secretary of War to begin changing the intelligence organization and could begin work revitalizing the MID.⁷⁰ By that time, intelligence work in the War Office in Britain had gone through three years of wartime evolution.

Although this study focuses on tactical, or combat intelligence, the development of War Department intelligence shows allied influence upon American organization and activities similar to that experienced by the AEF in France. Van Deman borrowed much from the British and French for his organization and doctrine. He borrowed from the British the concept of dividing intelligence into "positive" and "negative" sections, the positive being collection of intelligence about the enemy while negative intelligence denied to the enemy intelligence about one's own forces. Contraespionage, or counterespionage, he borrowed from the French.⁷¹ Between December 1917 and January 1918, Van Deman created functional subsections within the Military Intelligence Section according to British practice, labeled MI-1 through MI-8. Periodically the section took

⁶⁹ Powe, *Intelligence Agency*, xiii-xv.

⁷⁰ Powe, *Intelligence Agency*, vi-viii; Finnegan, *Military Intelligence*, 22-23.

⁷¹ Finnegan, *Military Intelligence*, 22.

more from the allies: Herbert O. Yardley's codes and ciphers bureau of MI-8 learned about secret inks from the British once they began breaking codes.⁷²

The Military Intelligence Branch finally achieved organizational equality with the rest of the General Staff after General Peyton C. March returned from France in April 1918 to become the new Army Chief of Staff. In August, March reorganized the General Staff along the lines of the AEF GHQ staff. The Military Intelligence Division became one of the four primary staff sections. Even in this regard the organization was not wholly American inspired: Pershing had adopted the G-1 through G-4 staff section structure based on the French Staff organization. By war's end the War Department had directly or indirectly drawn from the allies as it grew from less than a dozen to over 1500 personnel.⁷³

Combat Intelligence Organizations

The evolution of combat intelligence organizations followed along a path similar to that followed by strategic intelligence organizations, albeit perhaps more slowly. For the British army, the Crimean War revealed weaknesses in tactical intelligence just as it had revealed strategic weaknesses. Lord Raglan did not initially have a corps of guides as had served the Duke of Wellington so well in Spain. It took over a year for the British army to develop one. The cavalry units in the Crimea were not much better—they seemed generally uninterested in conducting reconnaissance missions, and were poorly trained in doing so anyway. Lord Raglan did not assign a military officer to head up the

⁷² Finnegan, *Military Intelligence*, 28, 30.

⁷³ Finnegan, *Military Intelligence*, 31, 33.

intelligence effort, so Lord Raglan's interpreter, Charles Cattley, gradually assumed responsibility for all intelligence duties in the absence of any military officer taking charge. Lord Raglan officially appointed him the Head of Intelligence in the spring of 1855. Cattley created the Corps of Guides later in 1855 and ran both overt and covert collection networks. Before his death from cholera, he produced periodic written estimates of the enemy forces and had them disseminated to the staff and occasionally to subordinate units.⁷⁴

Unfortunately, the end of the Crimean War saw the end of the Corps of Guides. The on again, off again, extent of tactical intelligence organizations continued in succeeding conflicts through the Boer War. There was even a regulation which prevented the field intelligence departments from being organized unless war was actually declared or imminent. The exception to the rule was in India. The Indian army established an Indian Corps of Guides in peacetime in 1846 on the recommendation of Colonel Sir Henry Lawrence. The Corps of Guides remained in existence in peace and war, which most likely contributed to their high effectiveness.⁷⁵

When the Second Boer War started in 1899, the British army had *The Soldier's Pocket-Book for Field Service* as its prime source for a description of the organization and functions of army intelligence. In time of war, the campaign army organized a Field Intelligence Department. An officer in the Adjutant General or Quartermaster General's Department served as the head of the department and reported directly to the army commander. In a small campaign there might be only one officer and a number of native

⁷⁴ Fergusson, *British Military Intelligence*, 136-137.

⁷⁵ Fergusson, *British Military Intelligence*, 139, 135-136.

guides and scouts in the department, while the head of intelligence would have a number of officers detailed specifically to work for him. An intelligence officer would be assigned to a staff down to division level, if the expedition was larger than division sized. The Corps of Guides and any networks of spied and informers would be members of the department. Army units conducting reconnaissance and surveillance would report to the department, but were not considered a part of it.⁷⁶

While this system worked on past campaigns once set up and running, it proved inadequate for intelligence requirements in South Africa. Many units smaller than division sized operated independently; this trend only increased as the Boers began to break up into smaller elements and conduct guerrilla operations. When Field Marshall Lord Frederick S. Roberts arrived to take command in January, 1900, he brought Colonel George F. R. Henderson to be his chief of intelligence. (Henderson had been a professor at the Staff College in Camberley before coming to South Africa.) Henderson immediately started expanding and reorganizing the Field Intelligence Department (FID). He began assigning intelligence officers to headquarters staffs at all levels, including intelligence collection units. He was especially concerned with having at least one intelligence officer assigned to every independent column, “no matter what the size of the column might be.” In practice not every unit received an officer, but at least units down to brigade and half brigade level did.⁷⁷ Traditional scouting methods by infantry

⁷⁶ Fergusson, *British Military Intelligence*, 140-142, 155.

⁷⁷ Statement of Lieutenant Colonel Robertson, Great Britain, Royal Commission on the War in South Africa, *Minutes of Evidence II*, (Cd 1791, 1903), Vol 41, 1904, 29; as quoted in Fergusson, *British Military Intelligence*, 155, 156-157.

and cavalry units had proven to be generally ineffective, so Henderson also expanded the number of special scout units.

Henderson's successors made additional improvements to the FID. Lieutenant Colonel C. V. Hume worked to develop counterintelligence units, special internal staffs for intelligence officers, and staff sections for censorship and document exploitation. To fight the Boer guerrillas, Lieutenant Colonel David Henderson organized four intelligence districts, each divided into sub-districts, all with their own intelligence officers in addition to the officers assigned to mobile columns. The expansion in personnel gave the FID 132 officers, 2321 white civilian subordinates, and thousands of natives as the war wound down. On contrast, just before the start of the war, there was one intelligence officer in each of the two colonies. When it thought war was imminent, the War Office sent ten additional "special" officers to the colonies to perform intelligence duties and prepare for future campaigns.⁷⁸

As in Britain's previous wars, the intelligence department demobilized after the signing of the Treaty of Vereeniging in 1902.⁷⁹ Fortunately, not all of the lessons of the war were lost or forgotten as had occasionally happened after past wars. Lieutenant Colonel Henderson's *Field Intelligence: Its Principles and Practices* and the "Regulations for Intelligence Duties in the Field" provided for the creation in wartime of a Director of Military Intelligence (DMI) to supervise all intelligence functions in a campaign theater, staff officers assigned to specifically intelligence duties down to division level, and an Intelligence Corps to serve as the administrative headquarters and

⁷⁸ Fergusson, *British Military Intelligence*, 157, 161, 147-148.

⁷⁹ Fergusson, *British Military Intelligence*, 166.

support organization for all the interpreters, scouts, guides, and technical specialists contributing to field intelligence.⁸⁰ *Field Intelligence* and the “Regulations” were not prescriptive in their discussion of the organization for the Intelligence Corps and intelligence staff officers. Instead they advised the army commander to arrange or alter the organization as he saw fit to match local or other conditions.⁸¹ Not sure where the next war might occur, or what sized force might be involved in fighting, the British essentially chose not to create any permanent organization during peacetime which would inevitably have to be changed or expanded in wartime. Therefore, when the First World War started in 1914, the British army did not have staff officers assigned to intelligence duties below division level and did not have lower echelon units responsible for intelligence collection.⁸²

In some areas the British did move forward in development of specific organizations in peacetime to prepare for the next war. In 1912, Colonel George M. W. Macdonogh, head of the Special Duties Section (MO 5), compiled a list of British persons possessing special skills in languages and other fields, including university lecturers, public school managers, businessmen, artists, musicians, and professional adventurers. The War Office would ask these men to join the Intelligence Corps if Britain went to war. When the war started in 1914, the War Office ordered these personnel to active duty. By the end of August, fifty personnel had entered the corps to

⁸⁰ Fergusson, *British Military Intelligence*, 178-181.

⁸¹ Fergusson, *British Military Intelligence*, 179, 181-182.

⁸² Occleshaw, *Armour Against Fate*, 30.

conduct interrogations; encipher texts; and conduct liaison, photography, reconnaissance, and order of battle development.⁸³

Colonel Henderson became fascinated with the possibilities of military aviation after Wilbur Wright's record breaking flight in 1908. In 1911 Henderson learned to fly. He served on a subcommittee detailed to plan for the creation of a flying corps and served as the first director general of military aeronautics after the creation of the Royal Flying Corps (RFC) in 1912. A British War Office memorandum that year outlined the missions for airplanes in support of ground operations, and reconnaissance was first among them. Henderson included a discussion of aviation reconnaissance in his 1914 revision of *The Art of Reconnaissance*.⁸⁴

When Britain entered the war in 1914, its intelligence organization was not much different in character from that at the start of the Boer War: small and somewhat ad hoc.⁸⁵ Thereafter until 1917, it grew by accretion. When the BEF deployed to France, much of the War Office staff departed to take positions in the BEF GHQ. Six personnel made up the intelligence staff of the GHQ in 1914. By August 1916 there were ten, each normally assisted by an Intelligence Corps officer, and by March 1918 there would be twenty-three.⁸⁶ Brigadier General Charteris told some American intelligence officers visiting the BEF GHQ intelligence section that when he deployed to France in 1914 as

⁸³ Fergusson, *British Military Intelligence*, 181-182. For further discussion of the Intelligence Corps see Chapter 4 and Jim Beach, "'Intelligent Civilians in Uniform': The British Expeditionary Force's Intelligence Corps Officers, 1914-1918," *War & Society*, Vol. 27, No. 1 (2008): 1-22

⁸⁴ Fergusson, *British Military Intelligence*, 173, 187. For further discussion of the development of the Royal Flying Corps prior to the war see, Andrew Whitmarsh, "British Army Manoeuvres and the Development of Military Aviation, 1910-1913," *War in History*, Vol. 14, No. 3 (2007), 325-346.

⁸⁵ Occleshaw, *Armour Against Fate*, 32-33.

⁸⁶ Beach, "British Intelligence," 91-92.

part of a corps staff, the sum of his intelligence section consisted of an empty tin box with a key to keep important papers. As late as 1916, Second Army instructions for intelligence duties noted it would be impossible to detail a General Staff Officer for purely intelligence duties at division level and below. In January 1917, GHQ finally decided to permanently assign an Intelligence Corps Officer to every division.⁸⁷

Until 1917, British intelligence staff manning was on par with the French and German armies. The French had a staff officer and three assistants at army level, and a staff officer and interpreter at corps level. The Germans had a staff officer and two assistants at army level, three officers at corps level, and one officer at division level. One historian has called 1917 “the key watershed for intelligence development.”⁸⁸ The permanent attachment of Intelligence Corps officers down to division level and the upgrading of General Staff intelligence officers from GSO Grade 3 to GSO Grade 2 both increased the total number of personnel performing intelligence duties and the stature of the officers in charge of intelligence.⁸⁹

If the development of intelligence staffs at division level and above seems slow, at least someone was tasked to perform these duties in 1914. At brigade level and below, there was no officer assigned specifically for intelligence duties.⁹⁰ The task was quickly assigned to an officer informally, often the assistant adjutant at the battalion level or the

⁸⁷ Beach, “British Intelligence,” 98-100.

⁸⁸ Beach, “British Intelligence,” 106-107.

⁸⁹ In the British Army, General Staff Officer grades operate similarly to diplomatic rank, in that the senior grade is GSO1. Next senior is GSO2, then GSO3, etc.

⁹⁰ Occleshaw, *Armour Against Fate*, 30.

Brigade Majors. By May 1917, the BEF had officers detailed for intelligence work down to battalion level.⁹¹

The growth of specific staff officers to analyze and disseminate intelligence was more than matched by the growth of organizations collecting information. Between 1914 and 1917 each level of command organized its own observers to report information to the command and intelligence staff.⁹² Brigadier General David Henderson took the fledgling RFC to France at the start of the war and served in command until 1917.⁹³ Although aircraft started off as an observer platform, the British developed an experimental photographic section for the RFC in early 1915, and by mid-1915 formed their own photo reconnaissance units.⁹⁴ By 1917, a myriad of manuals covered collection, analysis, and dissemination of aerial intelligence, and branch intelligence officers served in all aviation units.⁹⁵

British *Field Service Regulations* and Henderson's 1914 version of *The Art of Reconnaissance* did not cover radio interception, but the British had wagon mounted wireless stations for its cavalry units beginning in 1912. Although these and other radio signals units did not initially possess the sole mission of collecting wireless signals of the enemy formations, by the end of 1914, the cavalry radio units almost exclusively worked

⁹¹ Beach, "British Intelligence," 101.

⁹² Occleshaw, *Armour Against Fate*, 51.

⁹³ Fergusson, *British Military Intelligence*, 173.

⁹⁴ Fergusson, *British Military Intelligence*, 188.

⁹⁵ Beach, "British Intelligence," 75-76.

to intercept enemy communications. By 1916, seventy-five personnel in the army were involved in interception, and by the armistice, 1300 were in signals intelligence.⁹⁶

In May 1916 the BEG GHQ began appointing Intelligence Corps Officers to Corps heavy artillery headquarters, and in February 1917 they integrated into the newly formed Counter Battery Staff offices.⁹⁷ These groups integrated information gained from aerial reconnaissance and the sound ranging and flash spotting units first organized coherently in 1915. These units were manned by artillery men, organized under Royal Engineer Field Survey Companies, and reported to artillery units and intelligence staff officers.⁹⁸

By America's entry into the war in 1917, the BEF had an expanded Intelligence Corps providing support to General Staff Officers and technical intelligence collection, an officer assigned to intelligence duties down to battalion level, and a variety of units dedicated to collecting information on enemy forces. Most of these developments had pre-First World War antecedents, but the scope and scale of development and expansion, especially in technical collection, increased almost exponentially between 1914 and 1917.

Like the British Army, the U.S. Army generally developed intelligence organizations for a war and then disbanded them afterward. In one contrast to the British experience, the U.S. Congress authorized a permanent Corps of Indian Scouts beginning in 1866. Indian Scouts were analogous in many ways to the Corps of Guides supporting British arms at war. Both consisted prominently of locals, sometimes loyal subjects and

⁹⁶ Fergusson, *British Military Intelligence*, 189; *The British Army and Signals Intelligence During the First World War*, ed. John Ferris, Publications of the Army Records Society, Vol. 8. (Gloucestershire: Allan Sutton, 1992), 22-23.

⁹⁷ Beach, "British Intelligence," 103-104.

⁹⁸ Beach, "British Intelligence," 22-25

allies, sometimes turncoats. Indian and other scouts assisted infantry and cavalry units with tracking down their elusive opponents in the myriad Indian conflicts of the late 19th century. Analyzing and disseminating intelligence information remained the task of the unit commander. With no permanent organization above the regiment, and most regiments dispersed in multiple locations along the Indian frontier, this arrangement was generally adequate while the army remained focused on constabulary duties.⁹⁹

As the army became more interested in potential foreign enemies, officers recognized the need to establish higher echelon peacetime organizations with their corresponding staffs. Arthur Wagner, who wrote *The Service of Security and Information and Organization and Tactics*, addressed this challenge. While *Organization and Tactics* was centered on proper tactical methods and appropriate organizational structure for the army as a whole, Wagner included a plea for the inclusion of an intelligence staff officer at all major field headquarters.¹⁰⁰

The Spanish-American War and subsequent Philippine Insurrection highlighted the need for intelligence sections throughout the army organization. The War Department Military Information Division produced some useful material for all three major campaign areas. One historian has asserted the army had all the essential information on the character of the war and the forces engaged in Cuba before fighting started, and in all three campaign areas, the Americans had more information than their

⁹⁹ Finnegan, *Military Intelligence*, 10-11.

¹⁰⁰ Marc B. Powe, *The Emergence of the War Department Intelligence Agency: 1885-1918*, Instant Publishing Series (Manhattan, Kansas: Military Affairs, 1975), 29.

Spanish opponents.¹⁰¹ Below the War Department level, however, intelligence sections were ad hoc and of varying quality. General Shafter actually turned down LTC Wagner's offer to create a Military Information Division for his expedition to Cuba, while Brigadier General Merritt established an intelligence bureau in San Francisco in preparation for his expedition to the Philippines.¹⁰²

If a well established intelligence organization was important in operations against enemy regular forces, the subsequent guerrilla fighting highlighted how much more important good intelligence was. Just as the British were forced to further develop their intelligence organizations to cope with Boer guerrillas, American commanders in the Philippines quickly recognized the need for centralized collection, analysis, and dissemination of information on the Filipino insurgents. General Merritt created a Bureau of Insurgent Records in 1899 to perform this function. Renamed several times subsequently, the Philippines MID continued to exist after the end of the insurrection under the nominal control of the War Department Military Information Division, but it assumed primarily strategic rather than tactical intelligence collection for Eastern Asia and the Pacific.¹⁰³

Regions, districts, and sub-districts contained officers to manage the intelligence effort in the Philippines just as the British were doing so in South Africa. Local commanders appointed officers to manage the flow of intelligence, but they just as often ran their own networks of spies and informants. Captain William T. Johnston, who ran

¹⁰¹ Graham A. Cosmas, *An Army For Empire: The United States Army in the Spanish American War* (College Station, TX: Texas A&M University Press, 1994), 25-27, 70, 185.

¹⁰² Finnegan, *Military Intelligence*, 14; Cosmas, *Army For Empire*, 185.

¹⁰³ Finnegan, *Military Intelligence*, 13-14. Also see Marc B. Powe, *Emergence of the War Department Intelligence Agency*.

the La Union provincial intelligence system and performed provost marshal duties for his commander, and Brigadier General Frederick Funston, who established his own intelligence service and spy ring, are examples of the variety of organizations employed in the Philippines.¹⁰⁴

All of this individual experience was not recorded and passed on as efficiently in the American army as Henderson had done so in Britain. Wagner's books were updated and published after the war and insurrection, but they focused more on the employment of regular infantry and cavalry formations in reconnaissance and surveillance, and they did not have the status of Henderson's book or the War Office Intelligence Regulations. When the U.S. Army headed to Veracruz in 1914, and later, when Brigadier General John J. Pershing led the Punitive Expedition into Northern Mexico, the commanders again created intelligence sections from scratch. Unit intelligence sections, or even an intelligence officer, did not formally exist in any tables of organization for the American army.¹⁰⁵

Although intelligence staff sections remained impromptu organizations, technical intelligence units made their first appearances, prior to the First World War, under the aegis of the Signal Corps. The Army purchased its first aircraft in 1909, and by 1915 had

¹⁰⁴ Bran M. Linn, *The U.S. Army and Counterinsurgency in the Philippine War, 1899-1902*, (Chapel Hill and London: University of North Carolina Press, 1989), 70-80.

¹⁰⁵ Captain Douglas MacArthur, sent to Vera Cruz to investigate the situation, said of the intelligence office created by the deployed brigade, "there seems to be no logical conception of just what information is needed," Finnegan, *Military Intelligence*, 16. Aside from indicating the lack of training and experience of the intelligence section, this illustrates the transitory existence of intelligence sections. Brigadier General Pershing's expedition was itself an ad hoc organization of several smaller units, but this does not negate importance of the lack of a formal intelligence section in U.S. army units.

a whole squadron.¹⁰⁶ Pershing employed this 1st Aero Squadron in support of the Punitive Expedition in its search for Pancho Villa.¹⁰⁷ The Signal Corps also purchased wireless “radio tractors,” motor trucks equipped with radio sets. Through 1918 these radio tractor units, arrayed along with border with Mexico, intercepted transmissions made by the Mexican and German governments.¹⁰⁸ When American entered the war in 1917, the Army had at least experimented with these new technologies.

Intelligence Schools and Training

Up to the Second Boer War, the British army did not have a formal school program for training intelligence officers, or for that matter, any other specialty except artillery and engineers. There was also no separate career pattern for officers to serve only in intelligence duties without damaging one’s chances for promotion. In that sense, “doing intelligence” was just like doing adjutant or quartermaster duties. Intelligence was just one more of the functions required of officers to be able to do as generalists. It is not surprising then, that the Staff College at Camberley covered a wide variety of subjects, including ones of value to officers who conduct intelligence, such as reconnaissance, topography, foreign languages, and staff duties.¹⁰⁹

The experience of the South African war challenged the generalist view of intelligence as one more area of knowledge all officers should know about. While the

¹⁰⁶ Finnegan, *Military Intelligence*, 18.

¹⁰⁷ Donald Smythe, *Guerrilla Warrior: The Early Life of John J. Pershing* (New York: Charles Scribner’s Sons, 1973), 232-233; Finnegan, *Military Intelligence*, 19.

¹⁰⁸ “Radio Intelligence on the Mexican Border” (Fort Meade, MD: Center Cryptologic History), found at: http://www.nsa.gov/about/cryptologic_heritage/center_crypt_history/publications...

¹⁰⁹ Fergusson, *British Military Intelligence*, 148.

quality of officers in every branch or specialty varied widely, commanding officers perhaps noted more specifically the failings of those intelligence officers upon whose word they relied to conduct any operation against the Boers. Yet after the war, the army could not achieve a consensus on whether intelligence officers needed prior specific intelligence training to be effective in their positions without going through a lengthy on-the-job development process. Not even David Henderson, who had run the intelligence department with such effectiveness, particularly argued for specialized schooling in intelligence, although his status as a former professor at the Staff College may have inclined him to believe that any staff officer properly trained at the college could perform intelligence duties. The post-war commissions examining many different facets of the war did not solve the problem of whether and how to conduct training in intelligence methods either. There were also political challenges to be considered if an intelligence school defined a particular enemy to serve as the basis for training intelligence methodology. In the absence of a definitive statement by either the commissions or Henderson, the War Office did nothing.¹¹⁰

In the absence of War Office directives, the decision to conduct formal training fell to the initiative of subordinate leaders. The Staff College and subordinate units accordingly asked for guest lectures on tactical intelligence. Colonel Edward Gleichen, then head of the MO2 “European Section” of the DMO, and Colonel James Edwards, head of the MO5 “Special Section” were just two of the officers who lectured on intelligence topics. In the spring of 1907, the British Army’s Eastern Command

¹¹⁰ Fergusson, *British Military Intelligence*, 169-171, 172.

established a course to train junior officers for field intelligence duties in wartime. Eight officers attended the four week course. The two weeks prior to the course they read the Intelligence Regulations and Henderson's *Field Intelligence*. The course emphasized practical work including day and night reconnaissance, memory sketches, report forms and writing, databasing information, and eliciting information from captured soldiers or locals. The Eastern Command continued the course annually thereafter until the start of the First World War.¹¹¹

The Eastern Command's annual training of eight officers in intelligence duties was commendable for an army which assigned one intelligence staff officer per division, especially considering the BEF consisted of only six divisions. It could not provide enough personnel to fill out the BEFs requirement for intelligence staff officers as intelligence officers were assigned down to brigade and eventually battalion level at the same time the army expanded in size. Therefore, as the BEF expanded from 1914 to 1917, the army responded to the training challenge by developing a series of schools behind the front lines. At the end of 1915 the army began to run regular six week intelligence courses for the Intelligence Corps personnel at the Horse Guards in Whitehall under the responsibility of Captain Herman de Watteville.¹¹² Training for these personnel continued until 1918 when the instruction moved to a school building at Harrow-on-the-Hill and stayed there to the end of the war. The course had also expanded to eight weeks, training around thirty officers at a time.

¹¹¹ Fergusson, *British Military Intelligence*, 182-183, 185-186; Beach, "British Intelligence," 130-131.

¹¹² Beach, "British Intelligence," 131.

Training for junior officers and NCOs in particular intelligence tasks occurred in the context of the broader British training system behind the trenches covering all facets of warfare from rifle marksmanship up to general staff duties. Staff officers in intelligence positions at higher echelons gave lectures to regimental officers and NCOs at least from 1916. From 1917 intelligence task training, such as for members of observation groups, was part of the training schools. Even before this, technical training for personnel involved in areas such as interpretation of aerial photographs occurred under the responsibility of the branch proponent, such as the Royal Flying Corps.¹¹³ By the time the Americans entered the war, the British Army ran a variety of intelligence related schools for its officers and soldiers.

For the most part, the American army followed the same generalist view of officers as the British army. Intelligence was considered one of a number of topics any staff officer or commander should know something about. The development of branch specific schools in the years after the Civil War brought some specialization to an officer's professional development, but with no intelligence branch there was no intelligence school. The Infantry and Cavalry School and the Staff College at Fort Leavenworth, Kansas, taught subjects relating to intelligence as part of the total curriculum, similar to those taught at the British Staff College in Camberley. Brigadier General J. Franklin Bell's improvements in the Leavenworth schools (the Infantry and Cavalry School, later named the School of the Line, and the Army Staff College) promoted more professional staff work. This gave officers skills which they could apply

¹¹³ Occleshaw, *Armour Against Fate*, 66; Beach, "British Intelligence," 129, 133-134.

to a variety of areas of military expertise, including intelligence.¹¹⁴ The students did have Wagner's *The Service of Security and Information*, which he had written while an instructor at the Staff College at Leavenworth.¹¹⁵

Nevertheless, officers assigned to the MID in the War Department, or attaché duty abroad, or to an occupation unit in the Philippines, did not receive formal intelligence training. (The attaches at least received a letter of instruction highlighting what to do and not do in the host country.) Most intelligence "training" was nothing more than on-the-job experience. The officer received guidance from his predecessor, advice from a mentor longer serving in a position, figured out how to do it on his own, or was ineffective. Perhaps this was actually sufficient for the army's practical experience up to the First World War. The American experience in the Philippines Insurrection, however, served as a bellwether for the development of technical skills in intelligence. The intensive, long term collection and management of an insurgent database, conduct of prisoner interrogations, and management of document exploitation were all skills which needed a relatively uniform level of proficiency to work most effectively. One historian's remark that Captain Frank A. Sullivan actually kept a list of suspected guerrillas on file for his area in the Philippines illustrates the benefits an intelligence school might have had on the effectiveness of the counter-insurgency effort.¹¹⁶ More technical intelligence collection which developed in World War I, such as radio direction finding or aerial photography, could only be effective with properly trained personnel.

¹¹⁴ Edward Coffman, *The Old Army: A Portrait of the American Army in Peacetime, 1784-1898* (New York: Oxford University Press, 1986), 276-277; and *The Regulars: The American Army 1898-1941* (Cambridge, Massachusetts: Belknap Press, 2004), 176-177.

¹¹⁵ Nenninger, *Leavenworth Schools*, 37.

¹¹⁶ Linn, *The U.S. Army and Counterinsurgency*, 70-80.

The experimental nature of these units before the U.S. entered the war meant training was primarily apprenticeship based. Major John H. Marsching, who served as an instructor for the Langres, France based Army Intelligence School in 1918, reflected on the need for such formal training when he requested such a school after the war “to prevent any such deplorable state of unpreparedness to occur again in our military history.”¹¹⁷

When the Americans entered the war in 1917, the army was in many ways not far behind where the British army stood entering the war in 1914. Both armies had unofficial and official publications outlining how field intelligence should be practiced in the field, although the British had published Intelligence Regulations and the Americans had not. Both armies had established permanent organizations at the national level to collect, analyze, and disseminate strategic intelligence information, although the American organization was in a cyclical low in the capabilities of its MID in 1916. Both armies had organized intelligence staffs and units in wartime and disbanded them in during times of peace. Neither assigned permanent intelligence officers to staffs at lower echelons in times of peace. The British had gone further than the Americans to assign an intelligence officer to division level and above staffs. The Americans did not have such officers on their unit tables of organization (and did not have any permanent divisions or higher unit staffs), but they habitually created staff intelligence officers for these elements when conducting operations. Both trained on some aspects of intelligence methods in the staff schools. The British had gone farther in the Eastern Command’s development of a yearly intelligence school.

¹¹⁷ Marsching, J. H. Major, “History of the Army Intelligence School,” 30 November 1918, File 6 Instructors, AIS Miscellaneous Data, RG120, NACP, 12.

What greatly separated the two armies' intelligence services by 1917 was the explosion of technical intelligence during three years of wartime service. The advances in technical intelligence included aerial photography, signal interception, and both signal and artillery direction finding. These new collection methods immensely increased the amount of data armies could collect on their opponents, but also meant armies had far more data that needed analysis and interpretation. In addition, more traditional areas of intelligence collection, from patrolling and observation by combat units and scouts to prisoner interrogation and document exploitation, expanded in scope and complexity. Britain, like the other belligerents, worked through these developments and established its own approach to integrating technical intelligence. The U.S. army was not starting on a level playing field in intelligence when it entered the war: it looked up at the field from a deep trench.

The task naturally fell to Colonel Dennis E. Nolan, the AEF G-2, to develop a concept for intelligence in the American army. To him would fall the primary tasks of developing intelligence doctrine, organizations, and training, selecting whether and what to borrow from the allies to incorporate into American practice, whom to borrow from, and how to train personnel in the rapidly expanding army. The activities of the AEF intelligence officers from June 1918 to the end of the war demonstrate the Americans were perfectly willing to draw from Allied experience where necessary to bring the AEF "up to speed." The Americans would climb out of the trench by taking all they could from the British and French to build AEF intelligence regulations and TTPs, organizations, schools, and training methods.

Chapter 2: Creating AEF Intelligence

Allied Missions

When the American Congress declared war on 6 April 1917, exactly how the United States would assist the allies in the war effort was not at all clear. Some thought American assistance would be primarily financial and material. Others thought of a naval contribution, and still others conceived of American ground troops participating in some way. Britain and France were ecstatic about American entry into the war, but they both hoped to shape the character of American participation. In response, both countries created missions consisting of political and military leaders to travel to the United States and influence the Wilson administration. A measure of the allied regard for American military power can be inferred from the proposals Britain and France independently drew up for their missions to present to President Wilson in May, 1917. Both countries suggested that Wilson draft and send hundreds of thousands of American citizens directly to their country to be trained and incorporated in the French or British armies. Neither country (not even the Germans) expected the United States to be able to provide an

independent army for operations on the Western front, nor did the allies even want the U.S. to do so.¹¹⁸

Field Marshal Joffre, as the senior military representative for the French mission, recognized that the Americans would never accept a plan for incorporating, or amalgamating, US citizens or units into the British or French armies instead of operating as an independent army. He pressed his own government to offer equipment, advisors, and training to the Americans to build a bilateral Franco-American relationship. Upon arrival in the U.S., Joffre urged Secretary of War Newton Baker and President Wilson to send one division of the American army as soon as possible to France to be trained and placed into the line to fight. This would lay the foundation for a larger American army but also have an immediate and potentially profound effect on the morale of the French military and populace.¹¹⁹

Joffre's arguments made at least some impact on President Wilson and Secretary of War Baker. Joffre met with President Wilson on 2 May at the White House where he reiterated the importance of sending American troops directly to France as soon as possible.¹²⁰ That same day, Brigadier General Pershing, then commanding the Southern Department from San Antonio, Texas, received a telegram from the Chief of Staff, General Hugh Scott. Scott directed Pershing to select four infantry regiments and one

¹¹⁸ For background on the allied missions to the United States, see for example David R. Woodward, *Trial by Friendship: Anglo-American Relations 1917-1918* (Lexington, KY: University Press of Kentucky, 1983), and Robert B. Bruce, "America Embraces France: Marshal Joseph Joffre and the French Mission to the United States, April-May 1917," *Journal of Military History* Volume 66 No. 2 (April 2002).

¹¹⁹ Bruce, "America Embraces France," 417-422.

¹²⁰ Bruce, "America Embraces France," 425-426.

artillery regiment for service abroad under Pershing's command.¹²¹ Pershing arrived in Washington, D.C. on 10 May. By the time Marshal Joffre had returned to Washington on 14 May for final visits before returning to France, the Secretary of War at the President's direction had elevated Pershing to Commander in Chief of the American Expeditionary Forces.¹²² Though a decision on total numbers for the army had not been made, it would certainly number in the hundreds of thousands, if not millions.

President Wilson's selection of Major General John J. Pershing to be the commander of the American Expeditionary Forces, based on his able handling of the Punitive Expedition and ability to obey orders of the administration without question or public back-biting, proved to be especially fortunate because Pershing had also already shown a penchant for building capable organizations through training.¹²³ Because one of the main challenges facing an AEF commander would be ensuring the soldiers and officers were adequately trained, Pershing was a particularly apt choice. The U.S. Army was far behind the other belligerents in many areas, not just intelligence. Just catching up to current practices would be hard enough, but the U.S. army needed to grow its army by a factor of five or ten, or perhaps even twenty, to make a difference in the war.

Pershing's initial top priorities were to assemble a general staff, develop a supply system, and decide upon the organization of American forces.¹²⁴ He initiated preparations for the first priority by requesting officers from throughout the army to serve on his staff. After some negotiation with the War Department and adjustment of some

¹²¹ James G. Harbord, *The American Army in France, 1917-1919* (Boston: Little Brown & Company, 1936), 60.

¹²² Pershing, *My Experiences in the World War*, 18.

¹²³ Smythe, *Guerrilla Warrior*, 133-135, 262, 278-280.

¹²⁴ Pershing, *My Experiences in the World War*, 18.

names, Pershing issued General Orders Number 1, dated 26 May 1917, identifying the initial staff that would accompany him to Europe on the *S.S. Baltic*.¹²⁵ Further refinement of his staff, and the development of supply and combat organizations, would begin in earnest during the trip and once the staff arrived in France.

Pershing did not have much to work with in terms of existing American military organizations. The Spanish-American War and Philippine Insurrection had been the last major conflicts which required mobilization of American manpower into higher level organizations such as divisions, corps, and armies. Typically, these organizations disappeared along with the demobilized manpower after each of America's wars. However, after the Spanish-American war the army began working toward the creation of permanent divisions. The 1905 *Field Service Regulations* outlined a division organization and called for formation of provisional brigades and divisions during field exercises. The 1910 *Field Service Regulations* described a field army of multiple divisions and support troops. That same year, the General Staff, with help from the Army School of the Line at Fort Leavenworth, Kansas, realigned the division staff and fixed division strength. The Mexican Revolution provided further impetus to the development of permanent higher level organizations with the mobilization of a "Maneuver Division" on the border. By 1917, the army had tried a number of different division organizations and mobilized divisions several times for service on the frontier with Mexico.¹²⁶

¹²⁵ Harbord, *American Army in France*, 68-69.

¹²⁶ John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Army Lineage Series, CMH Pub 60-14 (Washington, D.C.: Center of Military History, 1998), 23-38.

Although the British and French Missions to the United States came with instructions to press for amalgamation of Americans into the British and French armies, the military missions of both countries brought a number of staff officers to work with the U.S. War Department in a more practical manner. Unfortunately, neither the British nor French tried to coordinate their missions. In fact, the French specifically tried to develop a bilateral relationship with the US that excluded the British.¹²⁷ Nevertheless, these missions initiated some joint planning and provided advice to the Americans. While touring the country, Joffre left several staff officers to stay in Washington with the U.S. War Department to help iron out details of French support to the AEF.¹²⁸ Pershing and his initial staff made as much use of the knowledge of these and the British officers as they could.

Among the Joffre and Balfour missions were officers from the French and British intelligence services.¹²⁹ Considering there were only four men in War Department “trained” as intelligence officers when the U.S. declared war, this proved fortunate.¹³⁰ The War College Division maintained some information on the intelligence services of the armies engaged in the World War, including Britain and France, but having a live person to talk to was quite helpful.¹³¹ When Pershing was allowed to pick his expeditionary staff, he was only allowed to choose two officers from those working at the

¹²⁷ Bruce, “America Embraces France,” 415.

¹²⁸ Bruce, “America Embraces France,” 426.

¹²⁹ Dennis E. Nolan, “Military Intelligence in the AEF,” Lecture Army War College, Fort Humphreys, D.C., 10 May 1935, Combined Arms Research Library, Fort Leavenworth, Kansas, 1.

¹³⁰ James J. Cooke, *Pershing and His Generals: Command and Staff in the AEF* (Westport, CT: Praeger Press, 1977), 91.

¹³¹ Nolan, “Military Intelligence in the AEF,” 1.

War Department.¹³² One of the officers he picked had previous experience in the Military Information Division in the War Department General Staff. That officer was Major Dennis E. Nolan.

Dennis E. Nolan

Pershing's selection of Nolan is not really surprising considering that the two had several common experiences and had worked together before. Both Nolan and Pershing had taught school before attending West Point. Both were graduates of the United States Military Academy (although they did not overlap there). Both had gone back to the Academy to serve as instructors (Nolan in law and history, Pershing as a tactical officer). Both fought in Cuba and the Philippines. They had served together in Washington, D.C., as part of the first War Department General Staff, created in 1903. After Pershing was promoted to Brigadier General, the two served together again in the Philippines at Fort McKinley, where Nolan served for a time as Adjutant General for Pershing.¹³³ Nolan was the only member of Pershing's seven primary staff officers who had not attended any of the Leavenworth schools, which shows how much Nolan impressed Pershing while they were together.¹³⁴

Nolan was born on 22 April, 1872, in Akron, New York, of Irish immigrant parents. Like many young men who eventually made their way to the Academy, Nolan had parents who valued education and saw that he got as much of it as possible. Nolan also

¹³² Harbord, *The American Army in France*, 61.

¹³³ Harbord, *The American Army in France*, 70-75; Kovach, *Dennis E. Nolan*, 17-18; Dictation No 1, Memorandum for Lieutenant Allan, 4 August 1934, Dennis E. Nolan Papers, USAMHI, Carlisle Pennsylvania, 3.

¹³⁴ Nenninger, *Leavenworth Schools*, 135-136.

shared the experience of many cadets who came from a middle class economic background in farming or local mercantile vocations, and he passed a competitive entrance exam in order to obtain a nomination from his local Congressman.¹³⁵ Nolan did not distinguish himself as a scholar while at West Point, but he excelled in baseball and football and displayed his leadership skills on the sports field and in the corps of cadets. After graduation in 1896, Nolan entered the infantry. He participated in the Spanish-American war in Cuba two years later where he was twice cited for gallantry, including earning a Silver Star. Nolan received a temporary promotion to major and took command of a squadron of the 11th Volunteer Cavalry Regiment in the Philippines in 1899 under BG Schwann. Nolan took part in a number of counterinsurgency operations there before he served as Acting Inspector General for the Headquarters Division of the Philippines and then Acting Adjutant General, First District, Department of Luzon. While in the Philippines, Nolan came to the attention of both Pershing and Harbord.¹³⁶

Following his departure from the Philippines in 1901, Nolan married in San Francisco and traveled to West Point to teach law and history. Nolan also coached the football team during his two years at West Point, beating Navy both years. Nolan departed West Point in 1903 having been selected as one of only a few captains to serve on the first general staff in Washington, D.C., in the Division of Military Information (the intelligence section). Captain Pershing was also briefly on the general staff before departing for attaché and observer duty in the Russo-Japanese War, and the two were

¹³⁵ Kovach, Dennis E. Nolan, 2-6; see also Allan R. Millett, *The General: Robert L. Bullard and Officership in the United States Army, 1881-1925*, (Westport, CT: Greenwood Press, 1975), for an analysis of socio-economic trends in cadets entering the USMA at the end of the 19th century.

¹³⁶ Kovach, *Dennis E. Nolan*, 7-14.

soon acquaintances. Nolan spent three years on the general staff. In addition to meeting Pershing, Nolan traveled as part of a delegation to France to observe army maneuvers there.¹³⁷

By 1907 Nolan and his family were back in the Philippines. In the mean time, Pershing had been promoted to Brigadier General and assigned to command the troops near Manila at Fort McKinley and the surrounding area. Nolan was initially assigned as acting Adjutant General for Pershing. Pershing welcomed Nolan's arrival. President Roosevelt had promoted Pershing over more than 800 officers, some of whom would obviously resent this. Pershing could use a loyal subordinate on his staff to help make his command a success. Pershing had great plans for conducting extensive training since this was one of the few posts where a brigade's worth of troops was concentrated. Nolan was well placed to put Pershing's plans into action. Over time their relationship reached the point that Nolan could tell Pershing freely and directly what he thought of Pershing's actions, whether they were going right or wrong.¹³⁸

Nolan eventually moved on to positions in the civil government as Inspector for the Philippine Constabulary and Director of the District of Southern Luzon. During this time he served either under or with James Harbord, who would later become Pershing's first Chief of Staff in the AEF. After four years, Nolan and his family returned to the United States. Nolan's next assignment took the family back to San Francisco at the Presidio where he had met, courted, and married his wife. Nolan took the position of Adjutant for

¹³⁷ Kovach, *Dennis E. Nolan*, 15-18.

¹³⁸ Cooke, *Pershing and His Generals*, 92; Kovach, *Dennis E. Nolan*, 18; Nolan, Dictation Number 1, 4 August 1934, Nolan Papers, USAMHI, 3-4. Smythe records that Pershing possessed the rare quality of taking honest criticism without holding a grudge later. See Smythe, *Pershing*, 55.

the 30th Infantry Regiment. Sadly, his son Dennis Jr. became ill and died while they were stationed at the Presidio.¹³⁹ After just a year the army sent Nolan to Fort Seward in Alaska. Nolan remained there until 1915, when he headed to the War College Division of the General Staff in Washington, D.C.¹⁴⁰

While in the War Department General Staff, Nolan accomplished two significant tasks which illuminate the state of preparedness of the army, the army's level of intelligence capability, and Nolan's professional skills. First, in 1915 the Secretary of War, Lindley M. Garrison, asked the General Staff to update the army's mobilization plan as part of a broader study of American military policy. The War College Division had become the de facto planning portion of the General Staff, so the division was tasked with developing the plan. Nolan's portion of the effort was to prepare a threat estimate to use for planning the defense of the American coast against an invading force.

The War Department had possessed an intelligence section since 1885, but by 1915, this section had been reduced to a subordinate element under the War College Division. Major Ralph H. Van Deman, who arrived in May 1915 for duty in the War College Division, noted how little intelligence was being done by the Military Information Committee of the War College Division. The few officers and clerks assigned to the section were clearly not enough to handle information flowing in from the military attaches in embassies around the world, especially with the war in Europe. In March 1916, he would submit a memorandum detailing the history of intelligence sections of the

¹³⁹ General Pershing lost his wife and all but one child to a fire in the family home at the Presidio. The shared experience of family loss at the Presidio likely added to the personal bond between the two men.

¹⁴⁰ Kovach, *Dennis E. Nolan*, 19-21; Nolan, "Comments on General Pershing's Book 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 12.

War Department and recommending a separate Military Information Section of the General Staff be reestablished.¹⁴¹ Unfortunately, Nolan was tasked to prepare the threat estimate before Van Deman began his revitalization, so Nolan had to work virtually alone.

Nolan gathered what was available concerning the strength of the German army and navy, which was not much, at least not much correctly annotated and filed for future use. There were no threat analyses or intelligence summaries on the Germans to draw upon for his work. Nolan described an ultimately unrealistic scenario in which the Germans would land masses of troops on the Eastern coast. While Nolan's report justified War Department plans, its lack of realism (in considering the effects of allied and American fleets on the feasibility of a German invasion of the coast, for example) demonstrated how far the U.S. had to go to develop a significant analytical intelligence capability.¹⁴²

Nolan's second accomplishment had a greater impact on American military policy and better demonstrated Nolan's staff officer capabilities. Nolan, like other officers in the War Department General Staff, faced the problem of generating combat forces for the army in the advent of war. This was an endemic problem for a nation which relied upon a small regular force, but American acquisition of overseas possessions and the potential for war with a major power had lent new urgency to the debate. Major General Leonard Wood, who had served as the Army Chief of Staff from 1910 to 1914 before taking command of the Department of the East, was one of the leading advocates of a

¹⁴¹ Bruce W. Bidwell, *History of the Military Intelligence Division, Department of the Army General Staff: 1775-1941*, Foreign Intelligence Book Series (Frederick, MD: University Publications of America, 1986), 95-96.

¹⁴² Kovach, *Dennis E. Nolan*, 22.

preparedness movement whose goals included strengthening American military power in order to defend the country against a first rate military force like that of Britain, France, or Germany. Wood and Secretary of War Henry L. Stimson had sponsored the 1912 “Report on the Organization of the Land Forces” which outlined a proposal for modeling the U.S army on the British military system, which a small Regular Army backed up by organized reserves and territorial units.¹⁴³ Wood continued to advocate for reform and improvements in army readiness while Commander of the Eastern Department. He personally gave more than sixty major speeches on importance of universal military service during the first year of World War I, gave over 150 talks during a seven month period in 1915-1916, dictated over thirty letters a day, and wrote several books and articles himself supporting universal military service.¹⁴⁴

Wood’s efforts, along with those of Secretary of War Garrison and other influential political and military leaders kept the preparedness movement and the potential growth of the army foremost in the minds of the administration, Congress, and the War Department. Major Nolan personally entered the preparedness battleground when he wrote a memorandum for the Army Chief of Staff, Major General Hugh L. Scott, advocating a draft as the primary means of raising manpower in the event of war. Nolan bypassed his superior, MG Tasker Bliss, to do so, handing his memo off to the General Staff secretary,

¹⁴³ John M. Palmer, one of three authors of the 1912 report, was later selected by Pershing, along with Nolan, to be the two officers Pershing received from the War Department General Staff to serve on the AEF staff; see Harbord, *The American Army In France*, 61-62, 68-69; and General Orders No. 1, 26 May 1917, *USAWW*, Vol. 16, 1-2.

¹⁴⁴ Jason P. Clark, “The Many Faces of Reform: Military Progressivism in the U.S. Army, 1866-1916” (PhD. Dissert, Duke University, 2009), 379-385.

Major William S. Graves. The same day Nolan submitted the memo, he found himself speaking with Major General Scott.¹⁴⁵

Scott praised Nolan's work, saying he had worried more about the issue of compulsory service in case of war than anything else in recent months. Scott said he agreed with Nolan's position and wanted Nolan to serve as his personal representative for the subject. Nolan subsequently worked with the Judge Advocate General to prepare a proposal for what would become the Selective Service Act to the Senate and the House. Nolan traveled to Congress and occasionally briefed committees and staff members in the absence of Major General Scott.¹⁴⁶

When Pershing arrived in Washington, D.C. to gather his staff and prepare for departure to Europe, Nolan was on temporary duty along the border with Mexico. Even though Nolan was absent from his staff position in Washington, his accomplishments, as well as his familiarity with General Pershing, put him on the short list of officers to accompany Pershing to Europe. Nolan himself thought his position on the original staff was secured by Major James Harbord. Pershing had selected Harbord to be his Chief of Staff. As the news of Pershing's new command spread through the army, Pershing and Harbord received telegrams, telephone calls, letters, and personal visits from many aspirants. Nolan said he did not go to Pershing to ask for a job, but he certainly wanted to go to France with Pershing. Therefore, Nolan was quite pleased when Major Harbord summoned him to an evening meeting to say Pershing had selected him and Lieutenant

¹⁴⁵ Kovach, *Dennis E. Nolan*, 22.

¹⁴⁶ Kovach, *Dennis E. Nolan*, 22; Nolan, "Comments on General Pershing's Book 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 12-15.

Colonel John Palmer to serve on the AEF staff. Nolan was not formally designated the head of the intelligence section of the AEF General Headquarters until July 1917, but Harbord apparently convinced Pershing to have Major Nolan serve as the AEF Intelligence Chief from almost the first.¹⁴⁷

To France

On 28 May 1917, within a week of Nolan's selection to Pershing's staff, the nucleus of the AEF set sail on the *S.S. Baltic*, headed for England and then France. While on board, Pershing instructed the AEF staff to conduct a series of conferences to answer questions about organization, training, and fighting. The entire staff considered fundamental questions like the size and organization of the AEF, questions they needed to ask the allies, and initial work to be accomplished before the arrival of the first combat troops. The staff had access to more confidential reports from the British and French, and they were assisted by several British and Canadian officers who also were traveling on the *Baltic*.¹⁴⁸ Pershing spent most of his time during the voyage discussing an organization for the General Staff with Major James Harbord, his Chief of Staff, and the tentative staff department heads. He developed a skeleton structure which would become the basis of the larger headquarters once the officers had a chance to study the British and French general staff systems in person.¹⁴⁹ Before they landed, however, Pershing made a tentative decision to model the AEF primarily after the French staff system.

¹⁴⁷ Cooke, *Pershing and His Generals*, 93; Pershing, *Experiences*, 1: 23-24; Harbord, *American Army in France*, 61-62.

¹⁴⁸ Pershing, *Experiences*, 1:42.

¹⁴⁹ Pershing, *Experiences*, 1:43.

The French general staff system divided its personnel into four main function areas: administration (G-1), intelligence (G-2), operations (G-3), and logistics (G-4). Pershing informally selected Nolan to take charge of the G-2, or Intelligence Section, of the staff, coequal with the other staff sections. Nolan was very pragmatic in his assessment of the status of the American and Allied intelligence services:

Since the American Army had never had any formulated Intelligence Regulations, and had no experience of its own in modern warfare to aid it, the organization and regulations had to be based on the experience of the French and British Armies.¹⁵⁰

Nolan studied the French and British intelligence systems while enroute to Europe just as other officers studied the allied systems in their specialty areas. Based on his knowledge of the two systems from reports in the War Department and conversations with British and French officers, Nolan favored following the British intelligence organization pending confirmation by a visit to the British and French trenches to see them in action. Pershing accepted this tentative decision.¹⁵¹

The arrival of the *Baltic* in Liverpool on 8 June 1917, offered the AEF staff their first major chance to gain additional information from the allies to inform their examination of the most appropriate organization, training, and logistical support for the AEF. After a

¹⁵⁰ First Draft of Chapter on Military Information Division, G-2-A, Folder Second Draft of his proposed history of World War I, Box 2 of 4, Dennis E Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6.

¹⁵¹ John Patrick Finnegan, *Military Intelligence*, ed. Jeffrey J. Clarke, Army Lineage Series, (Washington, D.C.: Center of Military History, 2006), 33; Cooke, *Pershing and His Generals*, 7; Nolan, "Military Intelligence in the AEF," 1; Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 1.

trip by rail to London, the staff participated in a series of high level meetings with British political and military leaders and members of the Imperial General Staff. The Secretary of State for War, Lord Derby, arranged for his assistants to talk to Pershing's staff about combat formation, tactical training, supply and replacement, and any other subjects which might come up. Nolan took advantage of the time available to visit the intelligence sections in the War Office and General Staff. These meetings were capped by a visit to a recruit training center near London on 12 June. Pershing and his staff observed an attack against a defensive position employing gas, trench mortars, and hand grenades. Pershing noted the realism of the training. The use of live hand grenades and trench mortar fire particularly impressing him, but based on his meetings and this exercise, he was surprised by how little the British appeared to be thinking about the possibility of a return to open warfare in the future.¹⁵²

After their brief visit in Britain, Pershing and his staff traveled to France to begin formal preparations for the arrival of American troops. First, however, Pershing had to attend to some diplomacy. After traveling by boat from Britain to France on the morning of the 13th, Pershing and the staff had to wait in Boulogne so they would arrive in Paris with the most Frenchmen out and about. The group arrived in the evening to a mob of enthusiastic French crowds. Pershing and his staff then took a couple of days to make some official calls, entertainment stops, and preliminary arrangements for billeting and support.¹⁵³

¹⁵² Pershing, *Experiences*, 1:44-45, 53-54; Cooke, *Pershing and His Generals*, 8.

¹⁵³ Pershing, *Experiences*, 1:72, 79-87.

After the obligatory diplomacy, Pershing and his staff settled in cramped conditions in a private house on Rue Constantine in Paris and set down to begin work. Pershing began with a trip to the French *Grand Quartier General* (GQG) on 16 June. Pershing met General Petain, members of his staff, and several senior commanders, including Major General Franchet d'Esperey, who commanded a group of armies under Petain. After viewing the extensive tasks performed by GQG, Pershing realized his current staff was inadequate in size to accomplish the tasks it would need to perform.¹⁵⁴

Pershing led an AEF staff conference on 18 June to set the priorities of work and begin preparing to receive the first American unit to France, which would arrive before the end of the month. The French appointed Marshal Joffre as head of the liaison group to work with the Americans to coordinate actions for procurement and supply through the French military and other government bureaus. Top priorities included formalizing the General Headquarters staff organization, determining the line of communications and line of operations for the AEF, and developing tables of organization for the AEF from the squad up to the army level.¹⁵⁵

As mentioned earlier, Pershing had already begun working on the line of communications and operations problem before arriving in France. When the Americans arrived in Britain, Pershing sent ahead five officers to France to study the availability of ports and examine rail facilities leading to the Western front. Based on their report and additional study by the rest of the staff, Pershing agreed with Petain on the basic line of supply for the AEF to go from the Western ports of St. Nazaire, Bassens, La Pallice and

¹⁵⁴ Pershing, *Experiences*, 1:72, 79-87.

¹⁵⁵ Pershing, *Experiences*, 1:72, 79-87.

others to Lorraine, near the important German held center of Metz. Two days later, the advance party for the 1st Division arrived in France.¹⁵⁶

Pershing also made the tentative decision to follow the French model of general staff organization, with its four main sections of administration, intelligence, operations, and logistics, before arriving in France. He formalized most of this broad structure of the GHQ on 5 July with the publication of General Orders No 8.¹⁵⁷ The designated heads of the sections were meanwhile busily developing their section internal structure. Nolan and his section, which officially consisted of himself, one other officer, and two clerks, initially occupied one small room in the house at Rue Constantine. While Nolan wanted to get straight to intelligence work, he and his assistant were not able to devote themselves exclusively to working on intelligence or the organization of the intelligence section. Because the initial AEF staff was so small, officers had to serve on numerous boards, often concerning issues unrelated to their specific duties. Both Nolan and his assistant, Major Arthur L. Conger, Jr., had to serve on boards relating to small arms selection, organization of the staff, and other areas, which took away from time to do intelligence work.¹⁵⁸

¹⁵⁶ Pershing, *Experiences*, 1:72, 79-87.

¹⁵⁷ General Orders No. 8, 5 July 1917, *USAWW*, 16:13-24. The Tables of Organization Included an Administrative Policy Section, Intelligence Section, Operations Section, Training Policy Section, and Coordination Section. Nolan says the Administrative section was later divided into two sections, Administrative and Supply, see Nolan, "Comments on General Pershing's Book 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 29. The sections were not specifically labeled as the G-1, G-2, G-3, etc., in the general orders. In February 1918, General Orders No. 31 revoked GO No. 8 and updated the organization, explicitly outlining the G-1 through G-5 sections and the Service of Supply; see General Orders No. 31, 16 February 1918, *USAWW*, Vol. 16, 216-225. See also John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Army Lineage Series, CMH Pub 60-14 (Washington, D.C.: Center of Military History, 1998), 67.

¹⁵⁸ *USAWW*, Vol. 13. 22.

Arthur L. Conger

Nolan received Conger as his assistant during the ocean voyage. According to Nolan, Conger had a reputation as a difficult man to get along with. Major Palmer, who was the initial head of the operations section, was not enthusiastic about having Conger under him, so Nolan got Conger instead. Nolan, however, recognized that a number of Conger's qualities made him particularly suited for intelligence duty. First, Conger understood German and spoke it fairly well, having been to German university. Second, few (if any) officers knew more about German army organization than Conger. Third, Conger had been through the Leavenworth schools as a student and had also instructed there for a number of years, so he also knew the capabilities of the other Leavenworth graduates whom he had taught. Whenever possible, Nolan picked new subordinates whom Conger had met and recommended.¹⁵⁹

Conger and Nolan did not share as many similar experiences as had Nolan and Pershing, although they were both born in 1872. While Nolan's parents were immigrants, Conger's parents were successful citizens in Ohio: his father fought in the civil war, managed a publishing business, and was a state and national leader in the Republican Party, while his mother was influential in the Daughters of the American Revolution, became a doctor of osteopathy in 1903, and published *An Ohio Woman in the Philippines* in 1904. Family wealth gave Conger early opportunities most others only dreamed about. When Conger was a teenager, his nineteen year old brother was injured in a racing bicycle accident. The doctor recommended a year of foreign travel, so

¹⁵⁹ Nolan, "Comments on General Pershing's Book 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 28-29.

Conger, his brother, and a professor of European History at Buchtel College cruised to Europe, the Mediterranean, and the Near East after meeting up with the rest of the Conger family in Rome.¹⁶⁰ After returning from his world travels, Conger went to preparatory school before entering Harvard in 1890. While there he studied history, philosophy, comparative religion, and music composition. He fenced, played chess and whist, and co-wrote music for a play. Conger counted among his closest friends George Cabot Lodge, the poet son of U.S. Representative, later Senator, Henry Cabot Lodge. While at Harvard Conger also discovered theosophy, and he joined the Theosophical Society in 1892.¹⁶¹

When Conger graduated in 1894, his parents expected him to continue his education by entering seminary. Conger, now a dedicated theosophist, argued with them but spent nearly two years in seminary before resigning. His parents partially cut him off from financial support, so Conger volunteered to work for the Theosophical Society headquarters in New York City.¹⁶² By 1898, Conger's relationship with his family was so estranged because of his devotion to theosophy that they cut him off completely from financial support. Out of money and not willing to ask for support from the Theosophical Society, Conger volunteered to fight in the Spanish-American war.¹⁶³

¹⁶⁰ Alan E. Donant, *Colonel Arthur L. Conger* (Pasadena, CA: Theosophical University Press, 1999), 2. The professor was Miss Marie Parsons.

¹⁶¹ Donant, *Colonel Conger*, 2-4; M. M. Macomb, "The Importance of the Scientific Study of Military History," *Proceedings of the New York State Historical Association*, Vol. 15 (1916): 103. Theosophy is a religious philosophy with a strong component of mysticism. The Theosophical Society in America is one of a number of groups with broadly similar objectives. Instituted in 1875, the group espouses universal brotherhood of humanity; the comparative study of religion, philosophy, and science; and investigation of unexplained natural phenomena and humans' latent powers. The society's web site is www.theosophical.org.

¹⁶² Donant, *Colonel Conger*, 4-6.

¹⁶³ Donant, *Colonel Conger*, 7-8.

Conger's apparently desperate turn to the army for financial rescue would eventually become a thirty year career of military service. Although Conger enlisted as a private in the 12th New York Volunteer Regiment, he was identified as leadership material and offered a commission as a lieutenant in the regular army. Conger accepted, and he eventually served as a junior officer in the Philippines as a lieutenant in the 18th Infantry Regiment. For part of his time in the Philippines he served as aide-de-camp to Brigadier General Robert P. Hughes in the Department of the Visayas.¹⁶⁴

Conger returned to the United States in 1902 with his regiment. He continued service in the army and attended the School of the Line Class of 1906 and Staff College Class of 1907. Conger so impressed one of the instructors at Leavenworth, Major John F. Morrison, that Morrison recruited Conger to join the faculty and serve as an instructor immediately after graduation.¹⁶⁵ Having studied history at Harvard, Conger was well suited to the primary task Morrison assigned him—to teach military history to the officers of the Staff College.

Conger would serve at Leavenworth as an instructor from 1907 to 1910, and again from 1913 until American entry into the war. His first year at Leavenworth, Conger introduced the source method of study, based on research techniques he learned at

¹⁶⁴ Carol Reardon, *Soldiers and Scholars: The U.S. Army and the Uses of Military History, 1865-1920*, Modern War Studies (Lawrence, KS: University Press of Kansas, 1990), 69; Donant, *Colonel Conger*, 8; Conger was identified as a subordinate of Major Edwin F. Glenn in a famous water boarding court-martial. Glenn was tried and convicted but received a light sentence, see General Orders No. 27, 26 July 1902, *General Orders and Circulars, Adjutant General's Office, 1902* (Washington, D.C.: GPO, 1903); also Hdqrs, Department of the Visayas, General Orders No. 66, 1 NOV 1901, *Affairs in the Philippine Islands: Hearings before the Committee on the Philippines of the United States Senate* (Washington, D.C.: GPO, 1902), 1549, 1562.

¹⁶⁵ Reardon, *Soldiers and Scholars*, 69-70; Macomb, "Scientific Study Military History," 103.

Harvard, to the students.¹⁶⁶ The first year, students examined copies of the actual documents and reports from General George B. McClellan's 1862 peninsular campaign, tracked the progress of the armies day by day on the map, and assessed the actions of the various commanders.¹⁶⁷ Conger expanded upon these ideas in subsequent years, sought advice and assistance from civilian history professors at other universities, and even traveled to Germany to the Universities of Heidelberg and Berlin where he apparently met and studied under Hans Delbruck.¹⁶⁸ Conger expanded the study program beyond the Peninsular campaign and eventually added European campaigns to the curriculum.¹⁶⁹

Conger did most of the instructing himself. Though his techniques were well regarded by the staff, one former student noted whenever Conger began to lecture all the students went to sleep. Another student described Conger as a "man of brilliant, if sometimes eccentric genius [who] inspired me to more real thought than any other teacher at the school."¹⁷⁰

The quality of his work brought Conger to the attention of senior army leaders. In 1914, when the Army Chief of Staff Major General Leonard Wood was given a list of names to head the soon to be established Historical Section of the War Department General Staff, Conger's name was one of the first mentioned.¹⁷¹ The War Department later had Conger teach the 1914 Army War College class in a three week intensive

¹⁶⁶ Reardon, *Soldiers and Scholars*, 69-70.

¹⁶⁷ Reardon, *Soldiers and Scholars*, 70-71.

¹⁶⁸ Reardon, *Soldiers and Scholars*, 72.

¹⁶⁹ Reardon, *Soldiers and Scholars*, 73.

¹⁷⁰ Nenninger, *Leavenworth Schools*, 96-98.

¹⁷¹ Reardon, *Soldiers and Scholars*, 74.

review of research techniques.¹⁷² By 1917 Conger had become a sort of traveling salesman for history, visiting and speaking at the Army War College, other army schools, and National Guard encampments.¹⁷³

Conger also had a solid reputation among civilian historians. He was one of three officers sent by the Army to the 1912 American Historical Association's (AHA) annual convention in Boston. In 1914 the AHA asked him to chair a special committee to award a prize for writing military history.¹⁷⁴ In 1915, Harvard Professor Robert M. Johnston got the Dean, K.G.T. Webster, to ask the Army to send Conger to Harvard for the summer. The War Department agreed on the condition that Conger went at his own expense.¹⁷⁵

Although he was posted as an instructor at Fort Leavenworth for almost seven years in total, Conger was on detached duty status from his regiment. He could be recalled to his unit, which happened several times. In 1914 and 1916 Conger went to Texas to serve in a maneuver brigade along the Mexican border with his regiment, just as Nolan did in 1917.¹⁷⁶ However much these deployments disrupted his students, they gave Conger a chance to reconnect with front-line army service before he joined the AEF.

Conger's career path and disposition may not have appealed to an officer like Major Palmer who was to head up the operations section of the AEF. Except for service in the Philippines, Conger shared little with Nolan in terms of assignments. Nevertheless, his skills as a historian were pertinent and valuable to the AEF, and particularly to the

¹⁷² Reardon, *Soldiers and Scholars*, 129.

¹⁷³ Reardon, *Soldiers and Scholars*, 83.

¹⁷⁴ Reardon, *Soldiers and Scholars*, 75.

¹⁷⁵ Reardon, *Soldiers and Scholars*, 175.

¹⁷⁶ Reardon, *Soldiers and Scholars*, 74, 179.

intelligence section. Conger said “military history is the laboratory of the military profession.”¹⁷⁷ An academic observer of Conger’s research seminar highlighted the similarities between soldiers and historians in their dealings with a wide variety of evidence.¹⁷⁸ Within the military profession, the research skills Conger taught officers were particularly valuable for anyone assigned to intelligence. The intelligence staff officers at each echelon carried the primary responsibility for collecting and collating information from subordinate and adjacent units in order to build a picture of what the enemy was currently doing and going to do in the future. However eccentric and difficult Conger may have been personally, his professional skills suited him eminently to fill a position in the intelligence section.¹⁷⁹

Samuel T. Hubbard

Nolan had hoped Conger would be of particular assistance in helping him select more members for the intelligence section. Nolan’s confidence was not misplaced. Not only did Conger do so in Europe, but he also brought Nolan an additional assistant even before they left the United States, in the form of Samuel T. Hubbard, Jr. Also a Harvard man, Hubbard was the son of a New York businessman involved in cotton and other commodities internationally. Graduating in 1907 from university, Hubbard spent his first three years working in Helena, Arkansas, working for a prominent cotton firm. Hubbard

¹⁷⁷ “Lecture by MAJ. A. L. Conger on Historical Research,” The Engineering School, Camp A. A. Humphrey’s, Virginia, [1920?], USAMHI, 1.

¹⁷⁸ Reardon, *Soldiers and Scholars*, 34.

¹⁷⁹ Conger later took charge of the Military Information Division (G-2-A) of the G-2 section in the GHQ AEF.

returned to New York, joined his father's firm, and in 1914 was elected to be a member of the New York Cotton Exchange.¹⁸⁰

After he returned from Arkansas to New York, Hubbard enlisted in the New York National Guard. He served as a private and then corporal in Company "K," 7th Regiment. In 1914, just before the war started, Hubbard contacted Conger at Leavenworth. It's not clear how or why Hubbard selected Conger to contact, but most likely their common connection to Harvard played a part. Conger began sending Hubbard simple battalion level map problems, which Hubbard would complete and return. Conger would correct the answers and send Hubbard more problems. By 1917, Hubbard had worked up to division level problems, and he had moved up the ranks of the National Guard as well. Hubbard eventually traveled to Fort Leavenworth and took a short staff college course for National Guard officers. This proved particularly valuable for him as he met several officers at Leavenworth who would later serve as Heads of Sections in the AEF.¹⁸¹

Hubbard thought he must have been doing something well when the army invited him to come to Washington D.C. in May to interview for a position in the AEF. There Hubbard met Nolan, who was preparing for departure to France. Nolan asked Hubbard the question he most feared getting: did he know the French language? Hubbard's answer, "Well, sir, I made a great many trips to Paris and never had any difficulty getting around," was technically true, but rather misleading. He had traveled to France on business, but Hubbard later revealed his command of French consisted primarily in

¹⁸⁰ Samuel T. Hubbard, *Memoirs of a Staff Officer, 1917-1919*, Reprint (Tuckahoe, NY: Cardinal Associates, 1959), 1.

¹⁸¹ Hubbard, *Memoirs*, 1, 4.

telling taxi drivers to take him to the Garde du Nord [sic] or the Moulin Rouge.¹⁸² Still, Hubbard made the cut. The army decided to commission him a Captain in the Signal Corps, and he made his way on the *S.S. Baltic* with the rest of the staff to France.¹⁸³

Hubbard did not officially go on active duty until after he arrived in France, but he began working for Nolan and Conger immediately. Pershing's request for a second group of officers to be placed on active duty and ordered to service in the General Headquarters (GHQ) included Hubbard.¹⁸⁴ He would head a sub-section of Conger's Military Information Division for about a year before moving over to teach at the Army Intelligence School (AIS) when it opened in July, 1918. Hubbard's skill as an intelligence officer and section head can be seen in the selection of his replacement. When he moved over to the AIS, he was replaced by a full Colonel in the Regular Army.¹⁸⁵ Conger's high personal regard for his former assistant may be inferred from Conger's dedication of his 1931 book, *The Rise of U.S. Grant*, to Hubbard.¹⁸⁶

¹⁸² Hubbard, *Memoirs*, 2. Presumably he means the Gare du Nord, a train station in Paris.

¹⁸³ Hubbard's trip was not without incident. Because he was selected soon before departure, there was not enough time for the War Department to produce orders putting Hubbard on active duty. He paid his own way onto the ship and then was told he was not a member of the army (his medical papers and oath of office had been lost). After Nolan spoke to General Pershing, Hubbard was allowed to continue with the staff to France but had to lay low in England as he had no passport or legal status. Hubbard found out later he had been carried on the passenger list as a "War Correspondent." See Hubbard, *Memoirs*, 2, 8-11; Harbord, *American Army in France*, 583.

¹⁸⁴ Pershing, *Experiences*, 1: 103, see footnote 1.

¹⁸⁵ Hubbard, *Memoirs*, 245.

¹⁸⁶ A.L. Conger, *The Rise of U.S. Grant* (New York: The Century Co, 1931), v.

Initial Impressions of Allies

With his deputy Major Conger, soon to be placed on active duty Hubbard, two clerks, and one crowded room in the house on Rue Constantine, Nolan set about creating an intelligence organization and doctrine for the AEF. Nolan's first priority on arrival was to visit the allies to observe their intelligence sections in action.¹⁸⁷ Pershing had already made a tentative decision while on the *S.S. Baltic* to follow the British intelligence model pending visits to the allied forces, but Nolan needed to confirm that decision.¹⁸⁸

The magnitude of the effort required quickly became apparent. As Pershing was meeting with General Petain and other French senior leaders on 16 June, his subordinates were making initial contacts with their French counterparts. After an initial visit with the French, Nolan received two more officers to serve as assistants in the intelligence section: Major Roger G. Alexander (Engineers), and Captain William O. Reed (Cavalry).¹⁸⁹ This was probably a result of the 18 June staff conference Pershing held after his first meetings with the French. Near the end of June Nolan, Conger, and his new assistants paid another visit to the French intelligence sections. The French urged Nolan to adopt their intelligence system completely.¹⁹⁰

¹⁸⁷ Smythe, *Pershing*, 13-15; Kovach, *Dennis E. Nolan*, 25.

¹⁸⁸ Nolan, "Military Intelligence in the AEF," 1.

¹⁸⁹ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 1. Nolan writes in his memoirs that he received Reed and Alexander while still on board the *Baltic*. It may be that these officers were tentatively assigned to Nolan while still on ship, but their definite assignment to the intelligence section did not occur until late June or early July, when Pershing issued General Orders No 8 outlining the initial staff organization. See Dennis E. Nolan, "Comments on General Pershing's Book, 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 29.

¹⁹⁰ Cooke, *Pershing and His Generals*, 94.

Historian James Cooke asserts “the AEF eventually did rely heavily” on the French system.¹⁹¹ Certainly Nolan praised the French in his post-war dictations for a planned book about intelligence, notes on Pershing’s memoirs, and lectures he gave in army venues. In a post-war lecture to the Army War College in 1935, Nolan said the French had an excellent intelligence service, at least equal to the British and in some areas better, such as in prisoner examination. Nolan felt there was so little difference in quality between the two that he could send officers to either army for training and experience depending on whether they spoke French.¹⁹² However, we will see later that American intelligence organization and doctrine (i.e. intelligence regulations) drew directly from British organization and regulations.

French pride in their own intelligence methods was equally matched by the British. Nolan received a similar reception when he arrived at the British General Headquarters to call upon Brigadier General John Charteris, Field Marshal Douglas Haig’s chief of intelligence, in late June. Charteris recorded the first of Nolan’s trips to the BEF in his diary:

To-day I have with me General Nolan, who is to run the American intelligence. He is here picking up wrinkles. If all the American Staff is of his type, they will do very well. He is precisely the man for the job, clear-headed, and very penetrating in his criticisms and questions. He is the exact opposite of the usual British conception of the American. Very courteous, not in the least assertive, genuinely anxious to learn

¹⁹¹ Cooke, *Pershing and His Generals*, 94.

¹⁹² Nolan, “Military Intelligence in the AEF,” 1-3.

and not to teach, and very appreciative of the part we have played in the war. He has already been to G.Q.G. and has gone back there from here.¹⁹³

Nolan impressed Charteris with his studious and open demeanor and insightful questions.¹⁹⁴ Unfortunately, these initial meetings with the French and British could do no more than set the stage for later, more comprehensive visits by Nolan and his growing staff. In the meantime, Nolan and his few subordinates were called in to participate in conferences to develop the organization for the AEF as a whole.

Organizing the AEF

The day Pershing and his staff left for Europe, Secretary of War Newton Baker created a board of officers under Colonel Chauncey B. Baker to travel to France to determine what the structure of the AEF should be. That the War Department would desire to gain information from the allies in order to develop an organizational structure for the AEF from the headquarters of the armies down to the soldier seems both logical and within the scope of the duties of the staff. Unfortunately, General Pershing had already tasked his own staff with developing the organization of the AEF from the staff down to the individual soldiers.¹⁹⁵

Pershing's desire to control the development of the organization of the AEF is understandable. He certainly desired to have as much autonomy as possible as

¹⁹³ John Charteris, Brigadier-General, *At G.H.Q.* (London, Toronto, Melbourne, & Sidney: Cassell and Company, Ltd, 1931), 232.

¹⁹⁴ Cooke, *Pershing and His Generals*, 94.

¹⁹⁵ Cooke, *Pershing and His Generals*, 9.

commander of the AEF. And admittedly, the General Staff did not have any plans for sending a large force abroad. (President Wilson's admonition to Acting Secretary of War Mr. Breckenridge and Acting Chief of Staff General Tasker Bliss in 1915 that every officer in the General Staff who had planned for a war with Germany should be relieved of duty, certainly did not help matters.)¹⁹⁶

The Baker Mission arrived in England to find the AEF staff had already been mining the British for nuggets to build into the AEF organization. The situation had the potential to increase friction between the War Department General Staff and Pershing's AEF staff. Luckily in this case, Colonel Baker and Pershing were classmates. When the two met in England, Pershing agreed to Baker's suggestion to work together after Baker continued his investigations in England, France, and Belgium. Over 7 and 8 July, the commission and the AEF staff met to hammer out details of the planned organization of the AEF. There were a number of disagreements, primarily over artillery support, but in the end, the two groups came to an agreement on the size and organization of American divisions and initial structure for the corps and armies.¹⁹⁷ The results of the conference became known as the General Organization Project. Pershing forwarded it to Washington on 11 July.¹⁹⁸

The joint conference hammered out a plan for the organization of the major unit types of the AEF in great detail, but development of a table of organization for higher level staffs did not occur. General Pershing had already decided on the broad organization of

¹⁹⁶ Frederick Palmer, *Newton D. Baker: America at War*, 2 vols. (New York: Dodd Mead & Company, 1931), 1:40.

¹⁹⁷ Cooke, *Pershing and His Generals*, 9; Wilson, *Maneuver and Firepower*, 52-54.

¹⁹⁸ Pershing, *Experiences*, 1: 101; "Baker Mission to England and France," 26 July 1917, *USAWW*, Vol. 1, 55-56; "General Organization Project," 10 July 1917, *USAWW*, Vol. 1. 91.

the GHQ staff with General Orders Number 8, published just a few days before the conference.¹⁹⁹ The conference did discuss organization of the staffs at higher headquarters, but the staff section heads were still collecting information and developing their organizations' duties and responsibilities. The AEF headquarters began compiling their proposed Tables of Organization for the General Staff in the fall and forwarded them to the War Department on 22 December 1917.²⁰⁰

The Baker Mission provided some information to the conference members on staff organization, including a portion on the intelligence sections of the British and French armies. The mission noted the vast expansion of the intelligence staff, from twelve men to between three and four thousand by 1917. The broad functions of the intelligence section were to obtain topographical information, information on the enemy and location of his forces, conduct secret service work, obtain economic intelligence on Germany, and supervise press censorship. It recommended that at least two experienced general staff officers be assigned to each new division, with one officer to work operations and the other intelligence. There would not be enough regular officers to fill all intelligence positions, so the mission mentioned General Charteris's recommendation to find secret service men, policemen, or any bright young men interested in the work and able to speak French, or German, or both.²⁰¹

The Baker Mission also visited the French Second Army. As they learned, the French staff organized in four bureaus. The 2nd Bureau, responsible for intelligence, performed

¹⁹⁹ General Orders No. 8, 5 July 1917, *USAWW*, Vol. 16, 13-24.

²⁰⁰ "Report," Commander in Chief, AEF, 12 February 1919, *USAWW*, Vol. 1, 140.

²⁰¹ "Baker Mission to France and England," 26 July 1917, *USAWW*, Vol. 1, 78.

practically the same functions as the British section, though in contrast apparently to the British lack of regard for intelligence, “everywhere the efficiency of the intelligence bureau was considered of the greatest importance.” The mission did not provide specific numbers for staff officers at any echelon in the written report.²⁰²

Major Nolan, Major Conger, Captain Reed, and Major Marlborough Churchill (who would shortly join the intelligence section) all participated on the side of the AEF in the joint conference with the Baker Mission. Colonel William S. Graves III represented the Baker Mission for discussions about the General Staff.²⁰³ Colonel Graves provided Nolan and his assistants with an additional pair of eyes examining the intelligence section, but he was also responsible for reporting on the other staff sections, such as operations, personnel, and supply. With Nolan and his assistants having already visited the French and British, most likely Nolan had already obtained more information than Graves could provide.

The Baker Mission provided more information of interest to the intelligence section in its discussion of artillery and airpower. The Baker Mission artillery representatives discussed the need for a special artillery information service which included sections for meteorological, sound and flash ranging, aerial photography, balloon and aerial reconnaissance, and map production. In the British army these elements were all controlled by engineers (though British artillery officers wanted to control it themselves), while in the French army these elements were controlled by the artillery, with

²⁰² “Baker Mission to France and England,” 26 July 1917, *USAWW*, Vol. 1, 79.

²⁰³ “Conference on Organization and Equipment,” 11 July 1917, *USAWW*, Vol. 1, 108-109.

topographical engineers sometimes attached.²⁰⁴ The Mission recommended creating all of these sections in the AEF, establishing artillery information schools in the U.S. and France; placing artillery information assistants as technical staff at every echelon of headquarters from War Department to division; and establishing an artillery information service section at corps, division, and regimental level.²⁰⁵

The creation of an artillery information service implied the requirement for close coordination between the artillery and intelligence staff officers. While the artillery commander used the technical data provided by these elements to employ indirect fire on targets, the intelligence officer needed the locations of artillery batteries and other units to develop a holistic picture of how enemy units were attacking or defending. The involvement of balloon and aviation elements added yet another coordination requirement. The addition of Major Marlborough Churchill, an artillery officer who attended the conference for the AEF staff, to the intelligence section shortly thereafter offered the possibility of facilitating this coordination.²⁰⁶ Churchill, along with Alexander, Reed, and Conger, filled out the four main sub-sections Nolan planned for intelligence.

Revisiting Allied Intelligence

At the conclusion of the conference, Nolan and his assistants resumed visits with the French and British to gather more information on intelligence organization and doctrine.

²⁰⁴ “Baker Mission to France and England,” 26 July 1917, *USAWW*, Vol. 1, 62, 66.

²⁰⁵ “Baker Mission to France and England,” 26 July 1917, *USAWW*, Vol. 1, 69-72.

²⁰⁶ “Conference on Organization and Equipment,” 11 July 1917, *USAWW*, Vol. 1, 108-109; Nolan, “Military Intelligence in the AEF,” 1

Because they had not completed their study of the French and British intelligence sections before the conference, Nolan and his staff were unable to make suggestions for what intelligence staff and units should consist of at division and lower echelons in time to be incorporated into the Division Tables of Organization and Equipment published in August 1917. Unfortunately, this meant the first divisions to arrive in France and the divisions organizing in the United States would not have the appropriate complement of personnel to perform intelligence duties if and when Nolan decided to include personnel at division level and below.

Nolan and Conger visited the French again the week of 12 July 1917. They visited the French General Headquarters, French Third Army, XIth Corps, and 35th Infantry Division intelligence sections.²⁰⁷ Nolan spent six days between the General Headquarters and army headquarters, and another day each at corps and division. The French gave Nolan and Conger sets of instructions governing intelligence operations, allowed the two men to observe French interrogations of German prisoners, and brought them forward to watch the operations of intelligence sections down to regimental level.²⁰⁸

After visiting the French, Nolan planned visits to the British as well. He arranged for Charteris to brief Pershing on the intelligence work done at the BEF Headquarters as part of Pershing's four day trip to the BEF. Pershing, along with Colonel Harbord, Colonel Alvord, and his aide, Captain George S. Patton, Jr., visited Field Marshal Douglas Haig and continued with visits to the other staff officers. The group spoke with Major General

²⁰⁷ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 1

²⁰⁸ a handwritten note in Nolan's First Draft of Chapter on Military Information Division, File Second Draft of His Proposed History of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 5-6; Kovach, *Dennis E. Nolan*, 25-27; Nolan, "Military Intelligence in the AEF," 1.

Butler, the Assistant Chief of Staff, about staff sections and the organization of field armies and corps. They spent a total of four days with the BEF, covering the adjutant general, artillery, aviation, army operations, and railway transportation.²⁰⁹

Charteris spent most of the 20th of July with Pershing's party. He was impressed with Pershing's determination and thorough manner, but thought it would be difficult for the Americans to have a "serviceable Staff going in even a year's time." Charteris noted the lack of trained officers as a whole, and he felt even the "trained" officers did not have anything like the knowledge of British officers in 1914 who had attended Staff College at Camberley.²¹⁰

Having had three years to develop an intelligence system while at war, it was easy for Charteris and his subordinates to feel superior to a newly formed American staff with only one division in Europe.²¹¹ Charteris also had no qualms with critiquing the French either. Nolan and his assistants visited the British from 28 July to 5 August after Nolan requested and Charteris offered for him to visit at the start of the Ypres battle to see the British intelligence organization and methods in action.²¹² Charteris tried to convert Nolan to the British system by criticizing the French. He told Nolan that the French would try to run AEF intelligence and to not let the French get near his section at Chaumont.²¹³

²⁰⁹ Pershing, *Experiences*, 1: 111, 114-115.

²¹⁰ Charteris, *At G.H.Q.*, 235.

²¹¹ Leonard P. Ayres, *The War With Germany: A Statistical Summary*, Second Edition (Washington, D.C.: GPO, 1919), 33.

²¹² Nolan, "Military Intelligence in the AEF," 1-2.

²¹³ Cooke, *Pershing and His Generals*, 11-12; see also Nolan's memoirs p86.

These statements really highlight the underlying antipathy between the French and British armies and how each was willing to exaggerate the faults of an erstwhile ally in order to gain influence over the AEF. Charteris's journal entry for the 20th of July illuminates some of this feeling:

All the Americans tell me that since they arrived in France, they have had to revise their ideas of what our army was doing. They left America quite convinced that the French were doing all the work, and that we were neither willing nor able, or either unwilling or unable, to do more than play a very poor second fiddle to the French. Generally they were enthusiastically pro-French, and not very much pro-British. Now the pendulum is swinging the other way. When the Americans arrived our stock in Paris went down to nothing. Naturally enough, the French people were falling over one another to honour the Americans, and did so rather at our expense. Pershing and his Staff thought them unjust. That is what made him take me with him in his car at the triumphal procession in his honour last week, a very fine action which D.H. greatly appreciated. D.H. and Pershing get on very well together, and the Staffs are on excellent terms. When all is said and done, Americans do speak our language, and think our thoughts, and should be easier to deal with than either the French or Belgians.²¹⁴

Charteris was most right in the obvious perception that the Americans spoke enough English to make dealing with the BEF easier in comparison to the French. Having not traveled to the United States, he would not have seen the intensely negative reception the Americans gave to British proposals in May for amalgamation before Pershing departed

²¹⁴ Charteris, *At G.H.Q.*, 235.

for Europe. The failure of the Nivelle offensives and subsequent mutinies, on the other hand, could only temper American impressions of the French army.

The real and perceived slights the British and French heaped upon one another and passed to the Americans only made Nolan's job more difficult. Not only did Nolan and his assistants have to wade through the intricacies of the French and British intelligence organization and doctrine, but also the Americans had to wade through the slanted portrayals the French and British offered of one another, interpret cultural differences, and translate what they saw into something useful for the AEF.

Nolan highlighted these points while remembering the instructions he gave to a major and former State Department employee in the fall of 1917 who was reassigned to be the liaison officer at the Belgian army headquarters. General Pershing was not available, so Nolan provided the major verbal guidance. Nolan particularly wanted him to tell the Belgians the Americans took no part in the criticism leveled by the French and British against the Belgian army, the Americans "had ceased to accept French and British propaganda for or against anybody as being wholly the truth," and the Americans would do what they could to raise the morale of the Belgian people. Nolan went on to say later with some perspective that criticism among allied powers was traditional and even natural within a coalition.²¹⁵

Cutting through Charteris's negative statements, Nolan and his staff were still able to take away much of value from the eleven days they spent with the British. Although the BEF Headquarters had not produced any intelligence regulations, the Second Army did

²¹⁵ Dennis E. Nolan, "Comments on General Pershing's Book, 'My Experiences in the World War,'" 15 January 1931, Dennis E. Nolan Papers, USAMHI, 5-7.

have regulations and had recently revised them based on experience from the recent Battle of Messines. The staff provided an advanced copy of the regulations to Nolan.²¹⁶ The Americans arrived by design during the Third Battle of Ypres, so Nolan and his assistants observed the intelligence sections in action during the battle at the BEF General Headquarters, Second Army, and subordinate unit levels. Nolan observed prisoner interrogations by British intelligence personnel just as he had during his visit with the French army.²¹⁷ The Americans also saw exploitation of captured documents; use of the Air Service for reconnaissance and photographic missions, wireless interception and decoding; and reports from the espionage service in Belgium on German division movements behind the front.²¹⁸

Nolan and his assistants concluded their visit and returned to Paris. Before Nolan had arrived in Europe he had made the tentative recommendation for the AEF to follow British intelligence organization and methods. A month and a half of study of British and French methods did not alter his impression of the two systems enough to change his mind. Both intelligence systems were excellent, with little difference in quality among the different intelligence functions. In the Final Report of the G-2 after the war and later, in a lecture to the U.S. Army War College, Nolan said the similarities in experiences the Americans would face as the British had in developing an army and an intelligence organization from a small regular force into a large conscript force, tipped the scales

²¹⁶ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 1-2

²¹⁷ a handwritten note in Nolan's First Draft of Chapter on Military Information Division, File Second Draft of His Proposed History of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 5-6; Kovach, *Dennis E. Nolan*, 25-27.

²¹⁸ Nolan, "Military Intelligence in the AEF," 1-2.

toward adopting the British model of intelligence. Nolan also added in his notes on Pershing's book that the AEF would have to relate to the French civilian authorities for counterespionage the same way the British did. The French intelligence organization was not as centralized as the British, which, according to one French intelligence officer, was because the British army had such a small staff at the start of the war, it was easier for them to adjust to give the intelligence section the appropriate duties and supervisory authority to go with it. The French, in contrast, did not even have all intelligence functions underneath the Intelligence bureau, so coordination could suffer.²¹⁹ Finally, Brigadier General Charteris was probably correct in assigning some value to the common language spoken by the British and Americans. An existing set of English language regulations (almost no translation required), albeit from the British Second army rather than the BEF Headquarters, could tip the scales even further. Nolan recommended confirming the initial decision to follow the British model, which Pershing approved.²²⁰

Nolan still had to actually write and publish the AEF intelligence organization and doctrine. Here the Second Army Intelligence Regulations were instrumental to the development of American regulations. Pershing and his staff copied, in some cases literally, the British regulations into the American version, modifying the content "only to

²¹⁹ Nolan, "Comments on General Pershing's Book," 75-76.

²²⁰ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 2; Nolan, "Military Intelligence in the AEF," 2. See also Jim Beach, "Origins of the Special Intelligence Relationship? Anglo-American Intelligence Co-operation on the Western Front, 1917-1918," *Intelligence and National Security*, Vol. 22 No. 2, (April 2007): 229-249. Beach asserts the special relationship between US and UK intelligence had its origin in 1917 rather than in WWII as many other authors have supposed. Beach's article provides a similar account of the American decision in 1917 to adopt the British intelligence system for American use, citing a mixture of archival sources as well as James Doty, "Allied Experience and American Expeditionary Forces Schools: Gathering Intelligence Knowledge for the Army Intelligence School, Langres, France." Thesis (M.A.) Ohio State University, 2005.

conform to our staff organization.”²²¹ He submitted the rough draft of the regulations to the operations staff (G-3), an artillery representative, the Chief of Aviation, and their Chief Signal Officer for their comment and approval first.²²² Nolan then brought the draft version to Pershing, who went over the regulations paragraph by paragraph before approving them.²²³ On 31 August 1917, the AEF published and issued “Regulations for the Intelligence Section, General Staff.”²²⁴

The intelligence regulations provided both organizational and doctrinal guidance for the AEF. But it was one thing to have a book sitting in the GHQ library. It was quite another to get the regulations distributed to the units in France and the divisions being organized in the United States. The French began training the 1st Division as soon as it arrived. Would the intelligence personnel (once they were created) learn the American regulations or would they resort to French methods?

The final answers to this question would not arrive until July 1918, but the publication of the AEF intelligence regulations was a watershed. On 6 April 1917, the U.S. army had neither combat intelligence regulations nor personnel permanently assigned by tables of organization to serve in intelligence. Once picked as the head of intelligence for the AEF, Nolan did not even question the need to copy allied intelligence methods. Between 28 May and 5 August, the AEF staff conducted continuous study of

²²¹ Nolan, “Military Intelligence in the AEF,” 2.

²²² First Draft of Chapter on Military Information Division, G-2-A, Folder Second Draft of his proposed history of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6-7; 401-001 Dictation No 1, Memorandum for Lieutenant Allan, 4 August 1934, Dennis E. Nolan Papers, USAMHI, Carlisle Pennsylvania, 1.

²²³ Dictation Number 1, 4 August, 1934, Nolan Papers, USAMHI, 1

²²⁴ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 2.

the intelligence methods of the British and French in order to adopt one country's methods as its own. Nolan ultimately chose to primarily follow the British model of intelligence organization and methods. How extensively did the AEF actually draw from British experience? Chapters Three and Four will examine the correspondence between the British Second Army Intelligence Regulations and the AEF organization and regulations to determine how literal the process of copying was.

Chapter 3: Building Intelligence Doctrine

Doctrine vs. Regulations

So far I have used the terms doctrine and regulations rather interchangeably. Writing from the vantage point of the twenty-first century as a member of the United States Army, I distinguish between doctrine and regulations by saying that an officer is legally bound to follow regulations, while doctrine is a guide which may be adjusted according to the specific situation. However, this may not be the same as the view of an early 20th century United States Army officer, so a brief clarification is in order.

In broad terms, doctrine can be described as General William DuPuy called it: what at least 51% of the army thinks is the way to fight.²²⁵ More specifically, the current edition of U.S. Army Field Manual 1-02 defines doctrine as the “fundamental principles by which the military forces or elements thereof guide their actions.” Field Manual 3-0 adds the points that doctrine expresses how the Army operates, provides a common language, is forward looking, and detailed enough to guide operations but flexible enough to allow initiative based on specific situations. Both manuals stress that the doctrine

²²⁵ Robert Scales, *Certain Victory: United States Army in the Gulf War* (Washington, D.C.: Office of the Chief of Staff, United States Army, 1993), 12. DePuy became the first commander of the newly created Training and Doctrine Command (TRADOC) in 1973 and was instrumental in the writing of the 1976 *FM 100-5 Operations* manual.

manuals should not be prescriptive.²²⁶ Regulations, on the other hand, are prescriptive and legal, that is, failing to follow regulations may subject the offender to sanction or judicial action such as a court martial.²²⁷ This broadly contemporary conception of the difference between doctrine and regulations, which has been outlined in army publications, appears to have evolved over time from a conception which considered all regulations, tactical or administrative, to be prescriptive, if not punitive, in nature.

Several factors appear to have influenced this prescriptive conception of the drill and field service regulations. First, drill manuals were the initial written doctrinal documents.²²⁸ Drill was necessarily prescriptive: performing manual of arms to load and fire a weapon would obviously not work out of sequence, while failure change formations, or march at the appropriate cadence, would jeopardize the safety of the unit. When the American army began to develop doctrine for the operations of higher echelon units, such as divisions, corps, and armies, to move on the battlefield, officers were building on the mental model of the drill regulations.

Another influence on the prescriptive conception of drill and field service regulations was the method of instruction in many army schools (like the Infantry and Cavalry School and Staff School at Fort Leavenworth) in the late 19th century. Based on

²²⁶ Headquarters Department of the Army, *FM 1-02 Operational Terms and Graphics* (Washington, D.C.: GPO, 21 September 2004), 1-65; Headquarters Department of the Army, *FM 3-0 Operations*, (Washington, D.C.: GPO, 14 June 2001), 1-14.

²²⁷ A brief glance at the introductory portion of AR 600-20 in the Applicability section states that “portions of this regulation that prescribe specific conduct are punitive, and violations of these provisions may subject offenders to nonjudicial or judicial action under the Uniform Code of Military Justice.” Headquarters, Department of the Army, *AR 600-20 Army Command Policy* (Washington D.C.: GPO, 18 March 2008), i.

²²⁸ There were of course administrative regulations as well. William Odom calls Baron von Steuben’s *Regulations for the Order and Discipline of the Troops of the United States* the first capstone doctrinal manual. These combined administrative and tactical portions into a single set of prescriptive regulations. Odom, *After the Trenches*, 5-6.

the West Point model of recitation, officers in class stood at attention next to their blackboards, ready to answer questions about the assigned reading and their board answers. Questions emphasized rote learning, so the officers learned to memorize the content of the reading paragraph by paragraph. Unfortunately, noted Eben Swift, when he arrived to teach at Fort Leavenworth, this method developed the memory, but not the judgment, of the students. Such rote learning, however, encouraged a prescriptive and literal view of the regulations.²²⁹

Officers identified with the progressive movement at the end of the 19th and beginning of the 20th centuries wanted to rationalize warfare and build a military profession based on science dependent on education and coordination of all kinds of knowledge.²³⁰ This could work both for and against a prescriptive view of doctrine. Progressive officers like Lieutenant Colonel Arthur Wagner did not want broad statements of tactical principals in manuals because they did not want to limit the intellectual freedom of the officer corps. Yet in not providing such principles, the 1904 *Infantry Drill Regulations* went too far in the other direction, providing a rule of thumb for a “normal attack” which specified how platoons would halt and fire in the face of the enemy, including the number of rounds they would fire at each halt.²³¹ In contrast, the 1911 *Infantry Drill Regulations* supervised by Lieutenant Colonel John F. Morrison

²²⁹ Clark, “Many Faces of Reform,” 91.

²³⁰ Clark, “Many Faces of Reform,” 261.

²³¹ Clark, “Many Faces of Reform,” 289; Office of the Chief of Staff, *Infantry Drill Regulations, United States Army, 1904* (Washington, D.C.: GPO, 1904), 88-89.

directed troop leaders to deliver “heavy fire to cover the advance of each rushing faction.”²³²

While the 1911 *IDR* provided more of an emphasis on principles, versus the 1904 *IDR* which provided more templates or rules of thumb for a typical situation, both were explicitly prescriptive. Both contained a foreword given by the Army's Chief of Staff or Secretary of War which said, “all infantry drill formations not embraced in this system are prohibited, and those herein prescribed will be strictly observed.”²³³ In contrast, the 1908 *Field Service Regulations* did not contain this phrase, but instead were published “for the information and government of the Army of the United States and for the observance of the organized militia of the United States.”²³⁴ The 1914 *Field Service Regulations* added three paragraphs to the foreword, including the following:

While the fundamental principles of war are neither very numerous nor complex, their application may be difficult and must not be limited by set rules. Departure from prescribed methods is at times necessary. A thorough knowledge of the principles of war and their application enables the leader to decide when such departure should be made and to determine what methods should bring success.²³⁵

²³² Office of the Chief of Staff, *Infantry Drill Regulations, United States Army, 1911* (Washington, D.C.: GPO, 1911), 66.

²³³ *IDR 1904*, 3; *IDR 1911*, 3. The 1904 version uses the phrase “exercises and maneuvers” instead of “formations.”

²³⁴ Office of the Chief of Staff, *Field Service Regulations, United States Army, 1905, With Amendments to 1908* (Washington: GPO, 1908), 3.

²³⁵ Office of the Chief of Staff, *Field Service Regulations, United States Army, 1914, Corrected to July 31, 1918* (Washington: GPO, 1918), 3. Although this version is corrected to 1918, the foreword is dated 19 March 1914 and signed by Major General Leonard Wood. An interesting contrast is the 1908 German Field Service Regulations: “The latitude allowed for the performance of duties in the field is intended to give scope for original thought and initiative on the part of commanders. Superior officers are forbidden to issue orders restricting this latitude.” *Field Service Regulations (Felddienst Ordnung, 1908) of the German Army, 1908*, trans. General Staff, War Office (London: Harrison and Sons, n.d.), iv.

The contrasting statements of the *IDR* and *FSR* show the development of the idea of doctrinal principles or methods of fighting, which were not prescriptive, and some tactics, techniques, or procedures which were. By the time the U.S. entered WWII, the concept of doctrine as non-prescriptive principles or methods of fighting, and regulations as prescriptive tactics, techniques, or procedures, was firmly established. In form, this was reflected in creation of three field manuals, FMs 100-5, 100-10, and 100-15, which officially comprised the *Field Service Regulations* but practically came to be devoid of the prescriptive meaning of regulations.²³⁶ In the First World War, however, the term “regulations” covered both ideas. This study considers the August 1917 AEF *Intelligence Regulations* to primarily represent doctrine in the modern sense, with the caveat that some soldiers and officers in the AEF may have interpreted them in the more prescriptive sense on a par with the *Infantry Drill Regulations* or other branch manuals.

British vs. American Intelligence Doctrine

To understand the importance of the publication of the AEF *Intelligence Regulations* in August 1917, let us quickly review the state of formal intelligence doctrine in the Army when President Wilson declared war. The *Field Service Regulations*, updated to 1917, were the overarching source of formal, written doctrine for the army, although the *FSR* was similar to Wolseley’s *Pocket-Book For Field Service* in terms of the proportion of its intelligence content. The *FSR* provided three points of

²³⁶ Odom, *After the Trenches*, 6.

intelligence doctrine: 1) it outlined the use of infantry and cavalry scouts and observers to collect information about the enemy and deny his ability to gain information; 2) it called for the creation of an intelligence section in the army's staff, run by one of the assistants, and 3) it included regulations which called for using balloons and aircraft for reconnaissance, observation of artillery fire, and to prevent enemy reconnaissance. What the *FSR* did not include was any information about the organization of the intelligence section, its functions, how it would accomplish those functions, or what it should provide to the commander. The August 1917 *Intelligence Regulations* filled in the areas not covered by the *FSR*, just as the *IDR* or regulations for the other branches of the army provided branch specific doctrine. While the development of AEF intelligence doctrine in World War I was about more than the publication of the *Intelligence Regulations* in August 1917, the regulations provided the framework for further development and refinement of intelligence practices.

The previous chapter recounted the efforts of Nolan and the AEF intelligence personnel to collect information from the allies about intelligence doctrine and organization. Nolan's decision to use the British Second Army intelligence regulations of May 1917 as the basis for the US *Intelligence Regulations* meant American doctrine was essentially British doctrine modified for American organization and some French tactics, techniques, and procedures. One way to understand the impact the allies, and in particular the British, had on American intelligence doctrine is to directly compare the British Second Army Regulations of May 1917 with the AEF *Intelligence Regulations* published in August 1917.

Comparison of the section headings for the British 2nd Army Intelligence Instructions and the AEF *Intelligence Regulations* shows the two are not identical, but there is a high degree of congruence between the two documents (See Appendix B: Comparison of Headings of British Instructions with American Regulations). The Second Army instructions contain twenty-eight numbered sections and eleven appendices, with each section numbered in outline form (2. (1) (a), etc.). The AEF *Intelligence Regulations* number paragraphs (per the method used in the *FSR* and *IDR*) and use unnumbered section headings. Nineteen of the twenty-eight sections in the Second Army instructions have a corresponding section with exactly the same or a similarly named heading in the *Intelligence Regulations*. The remaining nine numbered sections in the Second Army instructions deal with topography, maps, printing, censorship, and passes. Every section of the AEF regulations except the first has a Second Army instructions counterpart.²³⁷

The first section in the AEF Intelligence Regulations outlines “General Principles of Military Intelligence.” This is the only section which does not have a counterpart in the Second Army instructions. The AEF section lists four categories of information which divisional and higher commanders need to plan their operations: enemy order of battle, defensive organization, artillery, and aircraft services. The regulations identify what each category includes and the primary sources of information, i.e. collection

²³⁷ Second Army, “Instructions for Intelligence Duties,” 28 March 1916, AWM 25/324/4 part 2, Australian War Memorial, 2; General Staff American Expeditionary Forces, *Intelligence Regulations*, No. 13, 31 August 1917, 42, File Intelligence Regulations, 1917-1923, Leroy W. Yarborough Papers, USAMHI, Carlisle Barracks, Pennsylvania.

methods, used to obtain the information.²³⁸ Since the AEF regulations cover all American forces, while the British Second Army instructions do not, it is not surprising that the Americans include an overview section and British do not.

The next section in the AEF regulations is substantially the same as the first section in the British instructions. Each consists of six paragraphs and differs primarily in writing style. See Appendix B: , which highlights the similarities between the two passages, as well as some differences. The primary difference in content between these two selections is the inclusion of an army headquarters requirement for obtaining information about the enemy rear area, since the regulations are for the entire AEF, and the additional collection targets and collection methods mentioned by the AEF regulations.

Section number 2 in the British instructions shifts to “Intelligence Work in Divisions, Brigades, and Battalions,” while the next section in the AEF regulations covers “Duties of Corps Intelligence Officers,” which is section number 3 in the British instructions. The AEF regulations keep a consistent organization from army down to brigade intelligence, while the British instructions skip around somewhat. A comparison of the two sections on corps intelligence shows they again essentially differ only in writing style.

The next section in the AEF regulations is “Forwarding of Information by Corps to Army Headquarters.” The same heading appears in section eight of the Second Army instructions. Both sections are again substantially similar, except that the “Special

²³⁸*Intelligence Regulations*, 5-6.

Observer Reports” paragraph of the Second Army instructions is given a section heading in the AEF regulations.²³⁹

The preponderance of the remaining twenty-seven sections in the AEF regulations is essentially the same as the corresponding section in the Second Army instructions.

Here are the more notable differences:

(1) The “Arrangement and Contents of Summaries” section within the “Forwarding of Information by Corps to Army Headquarters omits the “Divisional Summaries” subsection. The paragraph on divisional summaries moves to the AEF “Divisional Intelligence Sections,” which is itself a merging of the Second Army sections numbered 2 and 4.²⁴⁰

(2) At first glance, the AEF regulations section “Intelligence Work of Brigades and Subordinate Units” does not appear to have a counterpart section. It turns out to be somewhat more reworded than other sections. Part of the reason for the difference is the AEF divisional organization is different from the BEF organization. The chain of command in an AEF division goes division -> brigade -> regiment -> battalion, while the BEF chain of command goes division -> brigade -> battalion. The following chapter will discuss intelligence organization in more detail. Here it is sufficient to note that the BEF brigade headquarters is essentially equivalent to the AEF regiment headquarters, which means for organizational purposes the AEF brigade headquarters does not have a

²³⁹ *Intelligence Regulations*, 9-10; “Instructions for Intelligence Duties,” 19-20.

²⁴⁰ *Intelligence Regulations*, 17; “Instructions for Intelligence Duties,” 24.

counterpart intelligence organization in the BEF division. The AEF regulations do not mention the regiment except to say that intelligence information generally flows directly from the regimental intelligence officers to the division intelligence officers. This setup matches the British organization, but Nolan most likely recognized that American brigade commanders would want and need to know the information, so he made the brigade adjutant responsible for collecting any intelligence. The equivalent position in the British brigade was the Brigade Major, who in the Second Army instructions was detailed as the officer responsible for intelligence.²⁴¹

(3) The AEF regulations “Observation” section is the same as the Second Army instructions except that it drops some of the subsections in the instructions: airplane photos, recording information, open warfare, and miscellaneous. Some of the airplane photo information appears in the section on air reconnaissance. The AEF regulations say observers should have notebooks to record information, while the omitted Second Army instructions detail how to fill out the notebooks, when to submit information, and how exchange information upon relief by a new unit.²⁴²

(4) The AEF regulations “Examination of Documents” section omits some of the details on the status of *soldbucher* and identity discs for captured soldiers.²⁴³

²⁴¹ *Intelligence Regulations*, 17-18; “Instructions for Intelligence Duties,” 2-3, 5, 8-9.

²⁴² *Intelligence Regulations*, 18-19; “Instructions for Intelligence Duties,” 5-6.

²⁴³ *Intelligence Regulations*, 27-28; “Instructions for Intelligence duties,” 29-31. Incidentally, one item mentioned in the instructions is the use of sandbags to hold documents captured from a soldier. The AEF regulations omit this technique, but American intelligence personnel later recommend the technique be used.

(5) Because the British Second Army is already on the front lines, it provides specific locations and conditions for weather reporting in its section on weather and forecasting. The AEF “Weather Observations and Forecast” section does not have any of the specific information. The AEF regulations also call for measurements in the metric system since the artillery equipment all comes from the French army.²⁴⁴

(6) The AEF regulations section “Missions for Air Reconnaissance and Photographs” is the least directly copied section. It provides general principles for the air service much as the first section provides general principles for intelligence as a whole. The Second Army instructions mention photographing the front line to update trench maps, which the AEF regulations omit. Otherwise, the following section, “Intelligence Officers Attached to Army and Corps Air Units,” is virtually the same.²⁴⁵

The very minor character of the changes made from the Second Army instructions to the AEF regulations shows how completely Nolan copied from the British when developing American intelligence doctrine. Essentially, he reordered the sections in a more logical sequence, dropped sections of the instructions which did not apply to the AEF, generalized portions which highlighted specific locations or personnel in the instructions, and modified the regulations to account for the different organizational structure of the BEF and AEF. Portions of the regulations were word for word the same. Nolan copied most terminology directly. For example, he used the British term “contre-

²⁴⁴ *Intelligence Regulations*, 35; “Instructions for Intelligence Duties,” 33.

²⁴⁵ *Intelligence Regulations*, 38-41; “Instructions for Intelligence Duties,” 14-16.

espionage” in the regulations to describe “the detection of spies and the prevention of leakage of military information.”²⁴⁶ Meanwhile, in the United States War Department, Colonel Van Deman was using the term “negative intelligence” to describe similar activities. While Nolan copied the term from the British, the British did the same from the French—no wonder then, that Nolan thought counter-espionage policies were maintained consistently across the Western Front.²⁴⁷

Perhaps the most interesting point to note from the development of the AEF intelligence regulations is General Pershing had essentially nothing to do with the subsections in the regulations concerning trench and open warfare. These subsections were already in the Second Army instructions and copied with the other sections into the AEF regulations.²⁴⁸

Conclusion

The AEF *Intelligence Regulations* published in August 1917 essentially copied the British Second Army “Instructions for Intelligence Duties.” The changes Nolan did make from the British primarily dropped sections of the instructions which did not apply to the AEF, generalized portions which highlighted specific locations or personnel in the instructions, and modified the regulations to account for the different organizational

²⁴⁶ *Intelligence Regulations*, 42; the 1920 version of the intelligence regulations reverted to the Americanized version counter-espionage, see General Staff American Expeditionary Forces, *Intelligence Regulations*, 1920, 74, File Intelligence Regulations, 1917-1923, Leroy W. Yarborough Papers, USAMHI, Carlisle Barracks, Pennsylvania; current terminology for the U.S. army calls this function “counterintelligence.”

²⁴⁷ “Counter-Espionage,” File Second Draft of His Proposed History of World War I, Box 2 of 4, Dennis E. Nolan papers, USAMHI, Carlisle Barracks, Pennsylvania, 1; First Draft of Chapter on Military Information Division, File Second Draft of His Proposed History of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6;.

²⁴⁸ *Intelligence Regulations*, 16, 25-26, 42-44;

structure of the BEF and AEF. Nolan later said the British and French intelligence systems were equally good; the French were perhaps even better than the British at prisoner interrogations and document exploitation because they had more experienced German language speakers. While he (and subsequently, historians) said the Americans drew upon both the French and British intelligence services to build the AEF intelligence organization and methods, examination of the first published intelligence doctrine shows that Nolan in fact took virtually everything from the British Second Army instructions.

This does not mean that the AEF did not draw from the French intelligence system at all. American units trained under French cadre and the intelligence personnel of these units therefore received at least some French intelligence instructions. American artillery units trained at French artillery schools, employed French guns, and used French equipment. The intelligence officers in artillery units could not fail to be affected by the close association between French and American artillery.

The AEF *Intelligence Regulations* were also not the only intelligence document produced in the War. The War Department published an intelligence manual for regiments and battalions in December 1917. The AEF G-2 section also translated and disseminated documents published by the French intelligence sections (as well as from the British) for use by the Americans.

Nevertheless, Nolan's decision to virtually copy a British document for use as intelligence doctrine shows how far behind American intelligence had lagged since 1914. The regulations outlined intelligence sections and functions which did not yet exist in the American army, like counter-espionage. Other sections covered areas which the

American had only begun to experiment with, such as wireless interception, aerial photography, and technical artillery intelligence. With such a close association of American and British intelligence doctrine, it is not surprising that a similar association in organization would follow.²⁴⁹

²⁴⁹ In the age of the computer it is easy to forget from a technical standpoint how much more difficult it would have been for Nolan to write a completely different set of regulations from that of the British. The simplicity of copying what appeared to be an excellent, existing set of regulations probably exerted a strong influence on Nolan and his assistants.

Chapter 4: Building the Intelligence Organization

Introduction

The development of AEF intelligence organizations from allied, especially British, practice was not as clear cut as the development of AEF *Intelligence Regulations* from the British Second Army instructions. The lack of an overall BEF intelligence doctrine or organization was chief among the influences on the development of the AEF organization. Intelligence organizations in the various armies of the BEF were not well standardized. The Canadian Corps developed its own, more robust intelligence organization than other BEF units. The French also exerted an influence, especially in technical areas where the AEF employed French equipment, such as artillery or aircraft. Nevertheless, comparison and contrast of the AEF and BEF intelligence organizations shows the Americans drew significantly upon the experience of the BEF. The degree to which the AEF drew from the allies depended on how well established comparable American organizations were, whether the AEF was using equipment from the allies, and what better matched American traits (at least as the officers in the AEF perceived them).

The British Second Army intelligence instructions included some statements about intelligence organizations at army, corps, and divisional level. They did not explicitly outline the organization of intelligence personnel at brigade level and below, and they would not, of course, outline the organization of a general headquarters. So

Nolan and his assistants had to do more than just copy down tables of organization as easily as they had copied the intelligence regulations. Fortunately for Nolan, 1917 was a watershed for development of intelligence in the BEF; the AEF was able to benefit from this development as well.

Up to the end of 1916, BEF intelligence personnel manning was comparable to the French and German armies. From 1917 on the BEF's intelligence staffs became larger than those of either their opponent or their main ally.²⁵⁰ (See Table 1: Comparison of Intelligence Staff in French, British, and German Armies, in Appendix E: Tables Comparing Intelligence Organizations.) This trend continued through the end of the war.

At brigade level and below, intelligence work was performed by officers detailed by their units. The Brigade Major had responsibility at his level for intelligence, but could draw upon one of the battalions for an assistant. The battalions assigned responsibility for intelligence to a single officer, but this officer would usually have other duties as well.²⁵¹ Above brigade level, intelligence work was normally conducted by General Staff Officers (Intelligence) (GSO(Is)) or officers of the Intelligence Corps. The two groups differed in experience, skills, interaction, and credibility. The GSOs were regular army officers with correspondingly extensive experience in a wide variety of disciplines, not just intelligence. The Intelligence Corps officers were wartime volunteers selected for primarily linguistic abilities or professional knowledge of the belligerent countries.²⁵²

²⁵⁰Beach, "British Intelligence," 106-107.

²⁵¹Beach, "British Intelligence," 100; "Instructions for Intelligence Duties," 2.

²⁵²Beach, "British Intelligence," 122.

British vs. American Intelligence Personnel System

One of the challenges the Americans faced in translating British organizations into American ones was the development of the Intelligence Corps system in the BEF. The British army historically created an “Intelligence Department” upon going to war which included scouts, guides, interpreters, and other intelligence related assistants to the commanders and staffs of British units. At the end of each conflict, the British generally disbanded these groups (although in India there was a permanent Corps of Guides). In 1912, however, Colonel George M. W. Macdonogh, in the War Office General Staff, compiled a list of British persons possessing skills in languages and other fields which would be useful if Britain engaged in a war on the continent. Upon going to war, the War Office would ask these men to join the “Intelligence Corps.”²⁵³

In 1914 this is what did happen, but neither the BEF nor the War Office had thought through exactly how these men would impact the army operationally and administratively. None of the volunteers had any training in intelligence and they were not initially told much about what they were supposed to be doing. They performed duties as diverse as interpreting for cavalry, interrogating German prisoners, organizing civilian work parties, obtaining food, translating damage claims, and occasionally, scouting. Some began work in the BEF headquarters supporting personnel performing intelligence duties. Without specific direction, the men in the field or on staff could not

²⁵³See Chapter 1, page 12, and Fergusson, *British Military Intelligence*, 181-182, Occleshaw, *Armour Against Fate*, 30-33. For a full discussion of the Intelligence Corps, see Jim Beach, “Intelligent Civilians in Uniform: The British Expeditionary Force’s Intelligence Corps Officers, 1914-1918,” *War & Society* 27, No. 1 (2008): 1-22.

provide much useful intelligence. Officers in the regular army from almost the beginning mistrusted them, having never heard of an Intelligence Corps or really thought about what such a group would do.²⁵⁴

The stabilization of the line into trench warfare generally eliminated any mobile work, so the men of the Intelligence Corps came to focus on interrogations and document exploitation for those who spoke the appropriate languages, and staff work supporting officers performing intelligence duties for the rest. The group was always strictly subordinated to the General Staff Officers (GSOs), acting as supporting analysts but not allowed to even give a “staff opinion.” Over time the corps was regularized in rank, pay, and duties. The officers were graded similarly to the General Staff officers, with grades from First to Fourth Class, First being highest. Although the training was initially uneven, courses for Intelligence Corps officers began as early as 1915, and formalized in 1916 at the Horse Guards in Whitehall. In 1918 the course would move to Harrow-on-the-Hill.²⁵⁵ By 1917, upgrading the number of Intelligence Corps staff officers and permanently attaching them down to division level significantly increased the analytical capability of the BEF, while regularization of their status, pay, and training improved their quality.²⁵⁶ The Intelligence Corps was an integral part of the British intelligence system.

²⁵⁴Occleshaw, *Armour Against Fate*, 32-33.

²⁵⁵Occleshaw, *Armour Against Fate*, 102; the General Staff officers and Intelligence Corps members had a grading system similar to that employed in the diplomatic service. Just as the First Secretary was senior to a Second Secretary, a GSO1 or Intelligence Corps (1st Class) officers was senior to a GSO2 or Intelligence Corps (2nd Class) officer. This did not always correlate to one's rank, though generally higher graded officers had higher ranks. For a more in-depth discussion of the Intelligence Corps see Beach, “British Intelligence,” 126-133.

²⁵⁶Beach, “British Intelligence,” 100, 106-107, 127.

The AEF did not have GSO grades like the BEF, and it did not have an Intelligence Corps. Nolan must have considered creating an Intelligence Corps modeled off the British example because the initial organization of the AEF Headquarters intelligence section outlined in General Orders No. 8 included subsection (e) Intelligence Corps. This section was to develop policy for establishing an intelligence corps; appoint, promote, and record information for intelligence corps officers; manage the intelligence police, which were enlisted and non-commissioned officers employed in counterespionage; and control the motor pool of vehicles for the intelligence corps.²⁵⁷ Nolan also used the terminology “Corps Intelligence officers” in the AEF *Intelligence Regulations*, but the term appears to be used more in the general sense of officers performing intelligence duties at corps level than for a separate branch of personnel. Instead of creating an Intelligence Corps, however, the army created a “Corps of Interpreters” of officers and non-commissioned officers (NCOs) to handle language functions.²⁵⁸ Though created to assist all staff sections, these personnel were easily subsumed into intelligence work with the primary duty of conducting prisoner interrogations and document exploitation, or in other words, much of what the Intelligence Corps officers in the BEF were doing. In essence, Nolan took the closest organization analogous to the British Intelligence Corps, the Corps of Interpreters, and applied tasks from one group to the other.

²⁵⁷Headquarters A.E.F., General Orders Number 8, 5 JUL 1917, *USAWW*, 16:13-17.

²⁵⁸Finnegan, *Military Intelligence*, 24.

Comparing the BEF and AEF Intelligence Organizations

GHQ

As of August 1917, when the AEF *Intelligence Regulations* were first published, only the 1st Division had arrived in Europe and was training under French tutelage. No corps or army level headquarters had been established. The sustainment troops (who would eventually become the Service of Supply) were only beginning work to develop the infrastructure to support an American army. The development of the AEF intelligence organization thus really began in the AEF headquarters (which would become a General Headquarters (GHQ)) intelligence section. Fortunately, Nolan's trips to the British and French general headquarters in June and July provided as much information on intelligence organizations as they did on intelligence processes.

Though both the British and French intelligence systems were comparable in quality, Nolan had chosen to model AEF intelligence from the British example, in large part because the BEF had undergone the same sort of expansion the AEF was going through. When he began visiting the BEF GHQ in June, it was still expanding. The BEF GHQ intelligence section contained only six staff officers in 1914. By August 1916 it had only risen to ten staff officers, but each officer generally now had an Intelligence Corps assistant. Between the Battle of the Somme and the German offensives in 1918, the size of the intelligence section more than doubled again, to twenty-three staff officers with assistants. The Operational Intelligence section I(a) of BEF intelligence grew from two general staff officers in 1914 to seven officers and three Intelligence Corps assistants

in 1917, and then to twelve staff officers and thirteen Intelligence Corps assistants in 1918. The growth in section size allowed for a division of labor with specialists focusing on different components of the German armed forces so they could better track sometimes subtle changes in disposition and organization.²⁵⁹ The I(a) section had six subsections covering enemy order of battle; German artillery; armaments, uniforms, and equipment; enemy defensive works; preparation of information and intelligence summaries; and distribution of information.²⁶⁰ Even with the massive expansion, some officers remained in a position for a remarkably long time. The head of the I(a) information section, Lieutenant Colonel Basil Bowdler, stayed in his position until early 1918. He had been in the War Office intelligence section since 1910 and had written the pre-war *Handbook of the German Army*.²⁶¹

By the time the Americans came to visit, the British had recently split censorship into two different sections, one for Press and one for Postal and Telegraphic Censorship. Both, along with other areas tasked to the Intelligence Staff such as Visitors (I(f)) and War Trade (I(g)) were under the overall heading of “Special Intelligence” headed by Colonel G. R. Church. This gave the BEF GHQ Intelligence Staff four main groupings: I(a) Operational Intelligence, I(b) Secret Service, I(c) Topographical and Maps, and Special Intelligence. Two additional sections covered I(e) Wireless and Ciphers and the

²⁵⁹ Beach, “British Intelligence,” 92.

²⁶⁰ Occleshaw, *Armour Against Fate*, 388.

²⁶¹ Beach, “British Intelligence,” 93-94.

I(x) Intelligence Corps. (See Table 2: General Headquarters Organization—BEF vs. AEF, in Appendix E: Tables Comparing Intelligence Organizations.)²⁶²

Nolan followed the same basic structure for the AEF, down to establishing the sections in the same order and giving them the same letter designations as the BEF intelligence staff. He initially established four main divisions of the intelligence section: (a) Information, (b) Secret Service, (c) Topography, and (d) Censorship. The Intelligence Corps was administered as section (e). Nolan differed from the BEF organization in placing the wireless intelligence and ciphers section under the Information Division rather than keeping it as its own division. Other technical collection systems, such as aerial photography and sound and flash ranging, either relied upon or supported the development of accurate mapping. So even though they were important for building a broad picture of the enemy activities, they were placed under the Topographical sections of the two armies. For the BEF, and subsequently the AEF, this meant artillery personnel manning the sound and flash ranging sections were under the supervision of engineer topographical survey personnel at GHQ level.

The AEF submitted Tables of Organization (TO) to the War Department for approval on 22 December 1917. The War Department approved the TO on 8 February with minor changes.²⁶³ In February 1918, the AEF produced General Orders Number 31 provided an updated organization for the entire AEF General Headquarters. Although the AEF Headquarters had been operating under the French model of organization from the

²⁶² In September 1917 the Chief of Staff, Lancelot Kiggell, initiated a review to determine how to focus the intelligence structure so it was focusing more on the enemy and less on censorship. In February 1918, the press, visitors, and censorship functions moved out from Intelligence Control to a new “Staff Duties” section of the Operations Staff. See Beach, “British Intelligence,” 96.

²⁶³ Commander in Chief, A.E.F, Report on Organization, 12 February 1919, *USAWW*, Vol. 1, 140-141.

beginning, these General Orders formalized calling the sections by their “G” staff numbers, with the Intelligence Section becoming the Second Section (G-2), per the French staff organization. The divisions of the intelligence section otherwise remained the same under the new organization as they had been developed from the BEF GHQ.²⁶⁴

Table 2: General Headquarters Organization—BEF vs. AEF outlines the main divisions and their subsections of the AEF Intelligence Section as of November 1918. The sections of the BEF intelligence staff have been arranged to match with the corresponding sections in the AEF instead of in their own order to highlight the similarities and differences of the two organizations.

Army

Initially the AEF G-2 section really did not have any subordinate units on the front lines to gather information from or send intelligence to. The development of the AEF as an independent army progressed upward, from division to corps and then army level. The initial divisions to arrive in France trained under allied tutelage, took over portions of the front as part of allied corps and armies, and only with the St. Mihiel offensive of September 1918 began major fighting under an American army headquarters. The American First Army did not come into existence until 10 August 1918, with LTC Willey Howell as the G-2.²⁶⁵ This gave Nolan and the AEF intelligence staff plenty of time to look at British and French units and consider the organization of

²⁶⁴ General Headquarters A.E.F., General Orders No. 31, 16 FEB 1918, *USAWW*, 16:216-220.

²⁶⁵ General Headquarters A.E.F., General Orders No. 120, 24 JUL 1918, *USAWW*, 16: 393.

intelligence at army level.²⁶⁶

The intelligence sections in the armies of the BEF, though robust in intelligence capability, were far smaller than the BEF GHQ intelligence staff, even with the decision in 1917 to permanently attach Intelligence Corps officers to staffs at army, corps, and division level. In 1916, the general concept had been for army level intelligence staffs to focus on analyzing information while from corps level down intelligence personnel primarily focused on collection. This concept was still presented in the May 1917 version of the Second Army “Instructions for Intelligence Duties,” although personnel increases would make it more possible for lower echelon staffs to perform their own analysis.²⁶⁷

Intelligence staffs at army level contained two General Staff Officers and six to eight Intelligence Corps Officers. The organization generally followed that of the BEF GHQ intelligence staff, with an I(a) Information section, I(b) Secret Service Section, I(c) Maps section, I(e) Wireless section, and I(g) War Trade section.²⁶⁸ The Second Army intelligence staff manning appears to be generally representative of the five armies, with two Intelligence Corps officers focused on the I(a) German army and unit identifications, one for I(a) airplane photographs, two for I(e) wireless communication collection, one for I(b) counterespionage, and one each assigned to the RFC wing attached to the army and

²⁶⁶ Although the echelons of intelligence below the AEF GHQ actually developed chronologically from lower to higher (division -> corps -> army) the comparison of BEF and AEF intelligence will progress by echelon from higher to lower to maintain consistency in organization.

²⁶⁷ Second Army, “Instructions for Intelligence Duties,” 1 May 1917, 2-3.??

²⁶⁸ Organization of Intelligence, H.Q. British Fifth Army,” LTC Arthur L. Conger Papers, WWI 1798, USAMHI.

the army's heavy artillery group.²⁶⁹

In addition to the intelligence staff, intelligence collection units operated at army level. Directly supporting the counterespionage section were twelve enlisted intelligence police. These men cooperated with the French military and civil authorities while searching for potential espionage by civilians or military personnel.²⁷⁰ In 1916, the RFC began providing an air brigade to each army. The brigade contained a “corps wing,” with a squadron assigned to each corps in the army for general cooperation (reconnaissance, aerial photos, and artillery observation) with the ground units, and an “army wing” for conducting longer range reconnaissance, bombing, and air superiority missions. By 1917, the number of squadrons devoted to cooperation with the army reached an all-time high.²⁷¹ To support these units providing vital intelligence, each Army air wing (and Corps squadron) had a Branch Intelligence section assigned. A section contained the Intelligence Corps officer mentioned above, two draughtsmen, one clerk, and one orderly.²⁷²

From 1914 to 1916 the BEF developed capability to intercept wireless transmissions. The first units were controlled directly by the BEF GHQ, but as the number and capability of wireless interception units increased, the intelligence staff passed down control to the army headquarters. By June 1917, these “Wireless Observation Groups” were attached to the wireless communications companies

²⁶⁹ Hubbard, “Report on Trip to British General Headquarters,” 9; Second Army, “Instructions for Intelligence Duties,” 1 May 1917, Appendix 1, 6.

²⁷⁰ “Instructions for Intelligence Duties,” Appendix 1, 1.

²⁷¹ John H. Morrow Jr., *The Great War in the Air: Military Aviation from 1909 to 1921*, Paperback Edition (Tuscaloosa: University of Alabama Press, 2009), 165-167, 235.

²⁷² “Instructions for Intelligence Duties,” 1 May 1917, 14.

supporting each army. Each group had seventy-five personnel operating six interception and two direction finding stations. The stations intercepted both air and ground communications. The stations passed information of tactical value directly to affected ground units, with all information eventually being passed to the Intelligence Corps officers working in the army headquarters.²⁷³

Sound and flash ranging in the BEF developed more rapidly. Third army formalized an Artillery Survey Detachment for conducting flash ranging in October 1915; GHQ then standardized the system across the BEF by placing the flash spotting units under Field Survey Companies a couple months later. GHQ also created two sound ranging sections per army at the end of 1915. By September 1916 GHQ decided to equip every corps with a sound ranging section as well. Then in late 1917 the British merged the sound and flash ranging sections within the Field Survey Companies.²⁷⁴ The observation groups came to contain four posts and cover a corps frontage.²⁷⁵

The AEF had plenty of time to consider these developments in the BEF.²⁷⁶ General Orders Number 12 announced the organization of the First Army effective 10 August 1918, almost a year after the publication of the AEF *Intelligence Regulations*. Under the War Department Tables of Organization, the G-2 section was authorized a maximum of fourteen officers and seventeen enlisted men not including personnel attached from the Headquarters Troop. The Table of Organization identified the ranks

²⁷³ Beach, "British Intelligence," 83; Second Army, "Instructions for Intelligence Duties," 14, 17-18.

²⁷⁴ Beach, "British Intelligence," 23-25.

²⁷⁵ John R. Innes, *Flash Spotters and Sound Rangers: How They Lived Worked and Fought in the Great War* (London: George Allen & Unwin Ltd, 1997), 62.

²⁷⁶ The Third Army formed after the armistice so will not be considered here. The Second Army did not form until 10 October 1918, so the bulk of the discussion will cover the First Army Headquarters intelligence section. General Headquarters A.E.F., General Orders No. 175, 10 OCT 1918, *USAWW*, Vol. 1, 477.

but not the duties of the personnel, except for one interpreter and twelve Intelligence Police. The section would include one Colonel as the section head, one Lieutenant Colonel, two Majors, seven Captains (including one interpreter), and one First Lieutenant. Two additional officers were authorized but not listed by rank.²⁷⁷ (See Table 3: Comparison of BEF and AEF Army Headquarters Intelligence Staff, in Appendix E: Tables Comparing Intelligence Organizations.)

Comparison of the army level intelligence staff of the BEF and AEF shows the Americans essentially copied from the British organization just as they did at GHQ level. The differences in the two organizations are mostly minor. Because the Americans did not create an Intelligence Corps, these positions in the BEF army staff were held in the AEF by staff officers from any branch assigned to the positions. The War Department Tables of Organization of July/October 1918 provided more personnel on staff than the Second Army instructions of 1917, but the BEF continued to increase its staff each year as well.²⁷⁸

The most significant difference in numbers of personnel is in prisoner interrogation and document exploitation. This increase in numbers highlights the way the AEF copied from the BEF initially and then updated methods and organization based on experiences. The July 1918 War Department Tables of Organization did not assign any members of the Corps of Interpreters to the G-2 army section to perform prisoner interrogations and document exploitation. In this regard it reflected the Second Army

²⁷⁷ War Department, "Table 202. – Army Headquarters Maximum and Minimum strength," Series C, corrected to 25 OCT 1918, USAWW, Vol. 1, 290.

²⁷⁸ The BEF GHQ increased in size from 10 General Staff and Intelligence Corps officers in 1917 to twenty-five in 1918. See Beach, "British Intelligence," 92.

instructions which did not assign any Intelligence Corps officers specifically to the duty, but rather mentioned an Intelligence Corps officer would perform the interrogations when prisoners were necessary. The Second Army instructions also that noted when significant numbers of prisoners were captured, one officer and four NCOs with a sufficient knowledge of German should be identified and used to augment the Intelligence Corps office for interrogations. The updated War Department Tables of Organization, corrected to 25 October 1918, added one officer and three NCOs from the Corps of Interpreters to the G-2 section, almost the same number of personnel as the Second Army instructions called for to augment the Intelligence Corps officer in a British corps during offensive operations. Finally, by the armistice the American First army had increased the number of personnel conducting prisoner interrogation and document exploitation to nine officers and three NCOs, with an additional fourteen enlisted men assisting with interpretation and document translation, administration of the POW cage, and typing.²⁷⁹

Part of this increase came from the creation of a specific document exploitation team. For the St. Mihiel offensive, the French Second Army provided training and assistance to the American First Army to develop a document exploitation section. The French trainers, led by Lieutenant M. M. Morin, assisted the Americans with building a series of files on German army units to facilitate incorporation of new data as additional documents were captured. Based on subsequent experiences at St. Mihiel and the Meuse-

²⁷⁹ War Department, "Table 202. – Army Headquarters Maximum and Minimum strength," Series C, corrected to 25 OCT 1918, *USAWW*, Vol. 1, 290; Second Army, "Instructions for Intelligence Duties," 1 May 1917, 2; Second Section (G-2) Headquarters, First Army, "Report," 18 NOV 1918, File 200.01 Report of G-2, 1st Army St. Mihiel, Meuse-Argonne, RG120, 5.

Argonne, the prisoners and documents section recommended a document exploitation team of six enlisted men under an officer.²⁸⁰

The section did not recommend a specific strength for a prisoner interrogation section or mention a lack of positions for interrogation personnel. Yet the increase from no officers from the Corps of Interpreters in the July 1918 organization to one officer and three NCOs in the October 1918 organization, and later the increase to the armistice organization of eight officers and eleven enlisted personnel (plus the document exploitation team), was certainly a dramatic change from the BEF organization in 1917. The British had already pointed out their organization lacked sufficient personnel in times of open warfare or offensive operations with large numbers of prisoners. The last few months of the war resulted in significant movement of the front line and capture of prisoners. It would be reasonable to base the growth of the prisoner and documents section to American experiences at the end of the war.

The growth of army intelligence staff was matched in some ways, at least unofficially, by growth in intelligence collection. The Intelligence Police illustrate this trend. The British Second Army intelligence staff in 1917 supervised a unit of twelve intelligence policemen, soldiers who performed counterespionage in the army's rear areas. The War Department Tables of organization for the AEF also provided for twelve intelligence policemen in an American army. When the First Army began operations, the G-2-B section did not have any Intelligence Police up to the start of the St. Mihiel offensive. Then the army received personnel from the AEF GHQ, subordinate corps, the

²⁸⁰ Second Section (G-2) Headquarters, First Army, "Report," 18 NOV 1918, File 200.01 Report of G-2, 1st Army St. Mihiel, Meuse-Argonne, RG120, 5, 21, 27-30 .

Service of Supply, and other locations so that by the armistice, there had been as many as thirty-five intelligence police operating in the First Army sector (though this number included both army level and corps level personnel). Although the personnel list for the First Army G-2-B section only listed twelve intelligence police positions by the armistice, the post-armistice report called for two officers and twenty-five intelligence police for the section.²⁸¹

Army radio intelligence also grew beyond the British structure as it existed in 1917. Radio intelligence, as in the BEF, was initially under the control the AEF GHQ. In preparation for the creation of the American First Army, GHQ opened an office in Toul in June 1918 to begin training for the staff personnel who would supervise army level radio intelligence work. Meanwhile, the actual collection systems operated under the control and supervision of the GHQ. The First Army radio intelligence section continued training and preparations for operations until arriving on 30 AUG 1918 at Ligny, where it began preparations for the attack on St. Mihiel. The AEF GHQ released the Tables of Organization for the Army Radio Section on 23 August 1918. Instead of providing eight systems per army as the BEF had done, the AEF provided six systems per corps, split evenly between ground and air interception and direction finding. The Army Radio Section also provided four ground telegraph (TPS) interception systems per

²⁸¹ War Department, "Table 202Y – Headquarters Troop, Army Headquarters personnel for Duty with Staff," Series C, 30 JUL 1918, corrected to 1 DEC 1918, *USAWW*, Vol. 1, 217; Table 202, *USAWW*, Vol. 1, 290; Second Section (G-2) Headquarters, First Army, "Report," 18 NOV 1918, File 200.01 Report of G-2, 1st Army St. Mihiel, Meuse-Argonne, RG120, NARA, 4, 31, 42-44.

corps.²⁸² The BEF expanded to eight Wireless Observation Groups in France by 1918, which increased the number of groups on the front by 60%.²⁸³ The AEF organization contemplated increasing the number of systems by a factor of four.

In contrast, the development of intelligence personnel in the air service supporting the army lagged somewhat behind the British in terms of numbers. In the spring of 1918 Major D.M. Henry and Major C. F. Thompson had traveled to both the French and British air services to see which system of processing intelligence information from aerial photography better suited the AEF. Based in part on their reports, the Air Service decided to follow the British model of the Branch Intelligence Officer. At the time, each reconnaissance, observation, or bombing squadron in the RFC Wing supporting an army contained a Branch Intelligence Section with one officer, two draughtsmen, a clerk, and an orderly. In the AEF, one Branch Intelligence Section (with one officer, two draftsman, one clerk, and one orderly) was only assigned to each observation group of three squadrons.²⁸⁴

The AEF provided comparable sound and flash ranging coverage at army and corps level to that provided by the BEF, but organized the units differently. The British organized their sound and flash ranging systems within Field Survey Companies whose purpose was also to develop updated map data for the army. Artillery units particularly

²⁸² AEF GHQ First Section, "Table 232 – Army Radio Section – Signal Corps," Series C, 23 AUG 1918, USAWW, Vol. 1, 266; Second Section (G-2) Headquarters, First Army, "Report," 18 NOV 1918, File 200.01 Report of G-2, 1st Army St. Mihiel, Meuse-Argonne, RG120, 32-38.

²⁸³ Michael L. Dockrill and David French, *Strategy and Intelligence: British Policy During the First World War*, (London and Rio Grande, OH: Hambledon Press, 1996), 75.

²⁸⁴ Terrence J. Finnegan, *Shooting the Front: Allied Aerial Reconnaissance and Photographic Interpretation on the Western Front—World War I*, (Washington D.C.: GPO, 2006), 225; "Table 611 – Army Observation Group, Air Service, Series F, 8 SEP 1918, USAWW, Vol. 1, 281. *Shooting the Front* provides the most comprehensive work on the development of aerial photography and intelligence by the allies in World War I to date.

needed updated map information to perform accurate indirect fire, so this arrangement did make some sense. In practice however, the sound and flash ranging sections became almost self-contained, with the Field Survey Company headquarters seeming as remote as a brigade or division headquarters. Also, in early 1918 the Field Survey Companies became battalions.²⁸⁵ The American organization of an Army Sound and Flash Ranging Battalion with five companies, each of four teams, therefore made sense.

Corps

The British Second Army intelligence instructions noted corps was responsible primarily for collecting information, while army was responsible for collating (analyzing) information.²⁸⁶ The organization of intelligence at corps level reflected this philosophy. Intelligence collection units were generally organized and commanded at army level, but units working in a corps area of operations responded to requests for information from that corps. The army maintained analytical capability in all intelligence collection areas, but the corps did not. Therefore, the General Staff Officer responsible for intelligence in a British corps did not have an assistant and only had three Intelligence Corps officers attached: two served in the I(a) Information section and one served in the I(b) counterespionage section. He also worked with the Branch Intelligence Officer attached to the reconnaissance squadron supporting his corps and the Intelligence Corps (later artillery) officer attached to the corps heavy artillery group. The Intelligence Corps officer attached to the artillery headquarters integrated into the newly formed Counter

²⁸⁵ Innes, *Flash Spotters and Sound Rangers*, 47-49, 52.

²⁸⁶ Second Army, "Instructions for Intelligence Duties," 1 MAY 1917, 1.

Battery Staff Office. Even after the Intelligence Corps officer was replaced by an artillery officer, the CB Staff Office continued in existence and worked with the sound and flash ranging observation groups working in the corps area of operations. The I(b) counterespionage officer supervised twelve Intelligence Police—just as large as the contingent at army level. What the corps intelligence staff lacked was Intelligence Corps officers for wireless intelligence and airplane photographs. It also lacked additional personnel to conduct prisoner examinations and exploit documents outside of the two I(a) Intelligence Corps officers, so one officer and four NCOs from subordinate units were to be made available to assist when the corps was inundated with prisoners and documents. Finally, a corps could establish its own ground observation posts on high ground to the rear of the frontline trenches overlooking as far as possible into the enemy's defensive zone.²⁸⁷

The AEF created its first army corps (the I Corps) on 20 January 1918, with the II, III, and IV Corps created on 25 June 1918. The original idea for corps organization was for each corps to permanently contain six divisions (four combat, one replacement, and one base and training division). I Corps was first organized with this idea in mind.²⁸⁸ However, the German spring offensives disrupted these plans, so the I Corps did not begin combat operations until the Aisne-Marne offensive in July 1918, when Major General Hunter Liggett, with the 26th Division and a French division, participated in the

²⁸⁷ Second Army, Instructions for Intelligence Duties," 1 May 1917, Appendix 1, 1-2, 6, 9-10; Beach, "British Intelligence," 103-105; J. E. Hahn, *The Intelligence Service Within the Canadian Corps, 1914-1918* (Toronto: MacMillan Company of Canada, 1930), 255.

²⁸⁸ Headquarters, A.E.F., General Orders Number 9, 15 JAN 1918, *USAWW*, Vol. 16, 166-167; General Headquarters A.E.F, General Orders Number 102, 25 JUN 1918, *USAWW*, Vol. 16, 357-359.

Aisne-Marne offensive.²⁸⁹ American divisions committed to battle served in French corps and armies while waiting for AEF corps and army headquarters to become operational. Also, the American First Army headquarters had not yet been established, so the corps intelligence personnel submitted their information to the French army in command and to the AEF GHQ.²⁹⁰

The official corps Tables of Organization did not distinguish among the staff sections of the General Staff, although the developers of the tables would have obviously needed a specific breakdown for each section. The Army General Staff College outlined the corps intelligence organization as part of the course of instruction. The section consisted of a G2, assistant G2 (each general staff officers), a commissioned interpreter, and eight officer assistants, not including two lieutenants in charge of a corps observer section. This organization was roughly comparable to the AEF army organization, with the subsections containing one officer rather than two. Like the BEF, the corps did not have a wireless section or the additional members of the Corps of Interpreters (for prisoner interrogations) at army level. The AEF corps retained, as the BEF corps had, a counterespionage section consisting of an officer and twelve Intelligence Police. The AEF corps retained, as the British corps did not, an officer assistant for interpretation of aerial photographs. In the BEF, there was a Branch Intelligence section per squadron, and one or more squadrons supported a corps. The primary responsibility for interpreting the aerial photos fell upon the Branch Intelligence Officer who was considered to be part

²⁸⁹ John S. D. Eisenhower, *Yanks: The Epic Story of the American Army in World War I* (New York: The Free Press, 2001), 169-170.

²⁹⁰ U.S. divisions operated within the French military chain of command, but they simultaneously sent reports to the AEF GHQ until they had a higher level American headquarters over them.

of the Intelligence Corps and worked for the corps intelligence section. The AEF Corps Air Service contained an Observation Group (with three squadrons) and a Balloon Group, but only one Branch Intelligence Section for the entire corps air component. Having an officer on the corps staff, even if not exclusively dedicated to aerial photos, helped the Branch Intelligence officer at the Air Service Corps Observation Group who had three times as many units to cover. Finally, the AEF corps intelligence section also supervised a more traditional group of ground observers with two lieutenants and twenty-seven enlisted men.²⁹¹

Division

Intelligence organization at division was a significant break from corps level. Divisions frequently rotated into and out of the front line and might even change corps from time to time. Corps headquarters generally stayed in charge of some portion of the line continuously. Therefore, it made more sense for intelligence collection and analysis to be focused at corps level and above. Specialized intelligence collection also greatly diminished from corps to division level.

The general attitude of leaders in the BEF was at division level and below, it was impossible to “detail an officer of the General Staff for purely intelligence duties.”²⁹²

The expansion of traditional and technical intelligence collection by 1917 influenced

²⁹¹ General Headquarters A.E.F., “Table 102 – Headquarters of an Army Corps,” Series B, corrected to 1 NOV 1918, *USAWW*, Vol. 1, 296; Army General Staff College, “Organizational Charts: U.S. Intelligence Service,” File Organization Charts U.S. Intelligence Service, AEF General Headquarters G-5 Schools A.G. Staff College 4th Course, RG120, NARA; Beach, “British Intelligence,” 76-78; See also Tables 602, 605, and 606 regarding the Corps Air Service organization, *USAWW*, Vol. 1, 325-327.

²⁹² Second Army, Instructions for Intelligence Duties, 1 MAY 1917, Appendix 1, 6; Beach, “British Intelligence,” 98.

leaders to reconsider that notion, but the solution provided in January 1917 by the BEF GHQ was to permanently assign an Intelligence Corps officer to every division and stress that the GSO3 previously responsible for intelligence should continue to be so. Nevertheless, the Intelligence Corps officer tended to become the focus for intelligence in the British divisions.²⁹³

A notable exception to this was the Canadian Corps. The Canadians always seemed to be a year or more ahead of similar British intelligence formations: The Canadian corps had a full time GSO2(I) in the fall of 1915, while the British did not assign a full time GSO to intelligence duties at corps level until the beginning of 1917. The contrast at division level was even greater. Although the British assigned an Intelligence Corps officer to intelligence in January 1917, they never did get around to assigning the GSO3 to intelligence full time. Meanwhile the Canadian divisions had a GSO2(I) **and** a GSO3(I) by the end of 1915.

The source of this greater focus on intelligence can be primarily traced to the advanced status of intelligence in the Canadian militia prior to the outbreak of the War. The Canadians formed a permanent Corps of Guides in 1903 after the Boer War. By the start of the First World War, over a hundred officers served in the corps, which gave each Canadian brigade men with experience in the Corps of Guides. This gave the Canadians a per capita quantitative as well as qualitative advantage in intelligence personnel over the rest of the BEF.²⁹⁴

²⁹³ Beach, "British Intelligence," 100.

²⁹⁴ Beach, "British Intelligence," 101-104.

Captain Hubbard had been especially impressed by the work of the Canadian Corps when he visited the BEF in December 1917. The Canadian system was one of four areas he highlighted in his cover letter to Colonel Nolan, and he devoted six of the twenty pages of his report to the Canadians. In addition, he cited the Canadian recommendations for whom to select for intelligence duties in his memorandum on opening an intelligence school to train new intelligence officers.²⁹⁵

American impressions of the Canadians probably had some influence, because the AEF intelligence section at division level ended up closer to the Canadian than the British example after beginning the war with no intelligence section at all. By June 1918, the Tables of Organization for a division included a LTC or MAJ as the Assistant Chief of Staff for Intelligence, one staff captain assistant, two lieutenants as interpreters/translators (but really also assistants to the G-2), and enlisted observers. The section might also have an engineering officer attached to perform topographic work. The Canadian division had a GSO2(I) head of the intelligence staff, GSO3(I) assistant, one Intelligence Corps officer, an observer section, and enlisted support personnel.²⁹⁶

Brigade/Regiment

²⁹⁵ Hubbard memorandum for Nolan, "Report on Trip to British Front," 3 JAN 1918, Arthur L. Conger Papers, USAMHI; Hubbard memorandum for Chief, Intelligence Section G.S., A.E.F., "Report on Trip to British General Headquarters," 1 JAN 1918, Arthur L. Conger Papers, USMAHI; Hubbard memorandum for Nolan, "Training and Obtaining of Intelligence Officers," 29 DEC 1917, Arthur L. Conger Papers, USAMHI.

²⁹⁶ War Department, "Table 22 – Headquarters of a Division – Infantry or Cavalry," 3 MAY 1917, *USAWW*, Vol. 1, 182; War Department, "Table 2 – Division Headquarters, Infantry Division," Series A, corrected to 26 JUN 1918, *USAWW*, Vol. 1, 342; Finnegan, *Military Intelligence*, 34; Captain T. E. Mason, "Suggestions for The Divisional Intelligence Officer, Army Intel School, G-5 Schools, GHQ AEF, RG120, NARA; Hahn, *Intelligence Service Within the Canadian Corps*, xviii.

The British and American divisions were organized differently between division and battalion level. British divisions contained three brigades of four (later three) battalions. American divisions contained two brigades of two regiments each of three battalions. A British brigade essentially equated to an American regiment, leaving the brigade as an extra echelon within the American division organization. Not surprisingly, Nolan did not place the brigade headquarters in the intelligence reporting chain. Instead, he applied British/Canadian intelligence at brigade level to the American regiments. He later noted that in combat operations, many brigade commanders detailed an officer and assistants as an intelligence section, so Nolan concluded the original organization was faulty.²⁹⁷

Although the British only had one echelon between battalion and division, they did not place particular emphasis on intelligence personnel at that level. That is not surprising given the British did not even allocate an officer solely devoted to intelligence duties at division level until 1917. The Brigade Major had responsibility for intelligence plus his other duties; the Second Army began suggesting in 1916 that he should have an assistant detailed from one of the subordinate battalions to assist him. Not until August 1918 did the British permanently establish the assistant's role and position.²⁹⁸ The Second Army instructions also suggested having no more than two brigade observation posts (OPs) with four men each, drawn from the subordinate battalions and rotated as the battalions rotated.²⁹⁹

²⁹⁷ Final Report of the Assistant Chief of Staff, G-2, GHQ, AEF, 15 JUN 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NACP, 4.

²⁹⁸ Beach, "British Intelligence," 100-101.

²⁹⁹ "Instructions for Intelligence Duties, 1 May 1917, 4.

The Canadian Corps, for reasons previously described, had a more robust intelligence presence at brigade level than the rest of the BEF. From the beginning of the conflict the Canadian brigade staff contained a Staff Captain, Intelligence, whose sole duty (as much as any staff officer can have a sole duty) was to perform intelligence work. He was eventually supported by an enlisted airplane photo clerk, two draughtsmen, and a standard clerk. He also supervised the operations of an observer section of twelve personnel.³⁰⁰

Nolan split the difference between the British and Canadian examples in the development of intelligence capability at regimental level. Prewar regiments did not have intelligence personnel in the headquarters or headquarters company. The January 1918 tables of organization, corrected to June 1918, provided for an operations and intelligence captain, 1st Lieutenant Regimental Intelligence Officer, and eight enlisted observers (three sergeants and five privates first class). The AEF had a staff captain for operations and intelligence (similar to the Brigade Major), but also had an officer specifically assigned to intelligence duties, though it was a lieutenant instead of a captain as in the Canadian brigades. The eight observers were less than the twelve assigned in Canadian brigades, but were permanently assigned to the regiment instead of drawn from subordinate units as in the British brigades.³⁰¹

³⁰⁰ Hahn, *Intelligence Service Within the Canadian Corps*, xv, 66-67.

³⁰¹ War Department, "Table 1 – Headquarters of a Brigade Infantry Cavalry or Field Artillery," 3 MAY 1919, *USAWW*, Vol. 1, 161; Finnegan, *Military Intelligence*, 34.; AcofS G-2, Memorandum for Chief of Staff, AEF, 15 June 1919, Report File, G-2, SOS Final Reports and Exhibits, RG120, NARA, 4; General Headquarters A.E.F., "Table 4 – Infantry Regiment, Series A, 14 JAN 1918 corrected to 26 JUN 1918," *USAWW*, Vol. 1, 344; General Headquarters A.E.F., "Table 5 – Headquarters Company – Infantry Regiment," Series A, 14 JAN 1918 corrected to 26 JUN 1918, *USAWW*, Vol. 1, 345.

The regimental intelligence instructions published in December 1917 had provided the same breakdown of personnel. The instructions also said enlisted personnel were to be members of the headquarters company and not to do non-intelligence work or be changed from their positions. The instructions were adopted “practically as they had been drawn up by the War College Division of the General Staff, modified at these headquarters only to increase very materially the intelligence personnel of the regiment, having it correspond very closely with the proportion in the British Service.”³⁰²

Battalion

Despite the statements in the AEF regimental intelligence instructions regarding the British intelligence system, analytical intelligence developed even more slowly in the BEF battalions than in the brigade. Though not a sole duty, an officer had primary responsibility for intelligence duties in the battalion headquarters. The battalion also had a Scout Officer who commanded the scouts, snipers, and observers of the battalion. Some units in 1918 developed a dedicated intelligence officer in addition to the scout officer, though this was not universal.³⁰³

Because neither the BEF GHQ nor the War Office produced an updated overarching intelligence manual during the war, subordinate units were not always uniform in their intelligence organization. The Australian and Canadian units particularly differed from their counterparts in the BEF at battalion level. The First Australian

³⁰² Intelligence Section General Staff and Headquarters American Expeditionary Forces France, *Instructions for Regimental Intelligence Service*, December 1917, File Combat Intelligence Manuals and Course Material 1917-1924, Leroy W. Yarborough Papers, USAMHI, 2, 6.

³⁰³ Beach, “British Intelligence, 100-101.

division “revived” battalion intelligence sections in March 1917 with a section containing one officer, one draughtsman, one batman (an enlisted man assigned as an orderly to an officer), four observers, three patrol/search party soldiers and two snipers.³⁰⁴ The Canadian Corps battalions contained one intelligence officer (LT), one scout officer (LT) a minimum of eight enlisted observers, eight battalion scouts, eight snipers, and one airplane photo clerk/draughtsman.³⁰⁵ An example “British” intelligence section organization included one intelligence officer, one scout officer, fifteen scouts (one sergeant, two lance/corporals, and twelve privates), eleven observers (one corporal and ten privates), five snipers (one corporal and four privates), a cook, and a servant, for a total of thirty-five personnel, although the author was himself Canadian in origin. Actually, many BEF battalions did not have any officer assigned specifically and solely to intelligence duties until 1918.³⁰⁶

The American instructions for regimental intelligence, published in December 1917, provided for nearly the same intelligence personnel as outlined for the idealized “British” intelligence section. The instructions did not call for a battalion intelligence officer in addition to the battalion scout officer, but they did provide for fifteen scouts and eleven observers with essentially the same rank structure as the British. The instructions provided for only two snipers instead of five, but both were NCOs (one sergeant and one corporal) and designated as “chief snipers.” These men trained snipers

³⁰⁴ “General Staff Memorandum No. 17, 25 March 1917, AWM 25 423/17, 1.

³⁰⁵ Hahn, *Intelligence Service Within the Canadian Corps*, 69-70.

³⁰⁶ Donald M. McCrae, *Offensive Fighting* (Philadelphia and London: J.B. Lippincott Company, 1918), 60; Army War College, *Notes on Recent Operations No. 2* (Washington: GPO, 1917), 109. The relevant sections on patrols in *Offensive Fighting* and *Notes on Recent Operations No. 2* are almost completely word for word identical.

in the infantry companies in addition to performing their sniper duties at battalion level.

U.S. officers did not have servants, unlike the British, so neither the cook nor servant was included.³⁰⁷

The instructions also said enlisted personnel should not be taken from organizations except when needed for intelligence duties for the battalion.³⁰⁸ This implied the soldiers for the intelligence section were to be drawn from the companies instead of assigned to the headquarters company as the observers at regimental level were located. This assessment is supported by the tables of organization for an infantry regiment. No scouts, snipers, or observers are indicated in the battalion headquarters or the infantry company table of organization. The tables of organization also call the lieutenant at battalion headquarters a “Battalion Intelligence Officer” instead of a “Scout Officer.”³⁰⁹

Drawing scouts observers and snipers from the infantry companies to perform battalion duties on occasion fit the historical use of scouts in American infantry units. Companies designated scouts, temporarily or permanently, to conduct reconnaissance and surveillance for the unit. The 1891 *Infantry Drill Regulations* defined scouts as “men

³⁰⁷ Intelligence Section General Staff and Headquarters American Expeditionary Forces France, *Instructions for Regimental Intelligence Service*, December 1917, File Combat Intelligence Manuals and Course Material 1917-1924, Leroy W. Yarborough Papers, USAMHI, 6.

³⁰⁸ Intelligence Section General Staff and Headquarters American Expeditionary Forces France, *Instructions for Regimental Intelligence Service*, December 1917, File Combat Intelligence Manuals and Course Material 1917-1924, Leroy W. Yarborough Papers, USAMHI, 6.

³⁰⁹ General Headquarters A.E.F., “Table 4 – Infantry Regiment,” Series A, 14 JAN 1918 corrected to 26 JUN 1918, *USAWW*, Vol. 1, 344; “Table 4 – Headquarters Company – Infantry Regiment,” *USAWW*, Vol. 1, 345; “Table 7 – Rifle Company – Infantry Regiment,” *USAWW*, Vol. 1, 347. Table 4 lists nine second lieutenants for the four infantry companies together, but only lists two second lieutenants per company. It is possible the extra lieutenant is designated the Battalion Scout Officer, but most unit histories only describe one lieutenant in the battalion linked specifically to intelligence, and call the officer either the battalion intelligence officer or battalion scout officer.

detailed to precede a command on the march and when forming for battle, to gather and report information concerning the enemy and the nature of the ground.”³¹⁰ The 1891 *IDR* saw the position of “scout” as a temporary one, a function, not a duty position. By 1918, the *IDR* was more specific about scouts. Each squad was to have two men trained as scouts with one of them permanently designated as a scout.³¹¹ The *Instructions for Regimental Intelligence Service* appear to have taken this into account.

Conclusion

The BEF and AEF headquarters intelligence sections from the GHQ down to corps level generally mirrored one another. Each lower echelon headquarters also mirrored its senior headquarters in the division of duties, though with fewer personnel and correspondingly less specialization. For the most part, the AEF directly copied organization names, terminology, and personnel manning from the BEF. At GHQ level the four main divisions of the AEF matched the four main divisions of the BEF GHQ and were even given the same letter designations. Intelligence officers attached to air units were called Branch Intelligence Officers in both armies. At battalion level, the AEF assigned the same number of scouts and observers as generally employed and recommended by the BEF. Differences between the two organizations indicated a difference in personnel systems, adjustments made by the Americans in response to further changes in the BEF organization, decision to follow the French instead of the

³¹⁰ U.S. War Department, *Infantry Drill Regulations, United States Army*, adopted Oct. 8, 1891 (New York: Army and Navy Journal, 1898), 6.

³¹¹ American Expeditionary Forces, *Infantry Drill Regulations (Provisional) Part I* (Paris: Imprimerie E. Fesfosses, 1918), 52.

British example, or prior American practice. Thus, the AEF did not create an Intelligence Corps, but it did create a Corps of Interpreters which fulfilled the functions of the Intelligence Corps relating to language proficiency. The AEF did not create a brigade intelligence section, presumably because the British only had one echelon between battalion and division instead of two. Scouts, snipers, and observers in AEF battalions came from the subordinate infantry companies instead of being assigned to the battalion headquarters.

Because Nolan continued to send officers to the French and British armies after the initial creation of intelligence regulations and organizations, the AEF could identify updates to the allies' intelligence organization and methods and choose whether or not to adopt them. Nolan notes that both organizations subsequently and independently made changes to meet new requirements within their Order of Battle sections (G-2-A in the AEF), only to find out that a similar change was made in the other organization as well.³¹²

The publication of the AEF *Intelligence Regulations* at the end of August 1917 gave the divisions being organized at least some reference for their intelligence organizations. In retrospect, not getting the intelligence personnel into the initial tables of organization inhibited subsequent personnel assignments and training, in part because the AEF intelligence regulations appear to have been imperfectly disseminated in the United States. Lieutenant Colonel Marlborough Churchill mentioned in an August 1918 memo that the first four or five divisions to arrive in Europe had adopted intelligence

³¹² First Draft of Chapter on Military Information Division, G-2-A, Folder Second Draft of his proposed history of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 7.

organizations and training methods from the British and French, modified for American conditions. These units later adopted organization and functions listed in the American regulations, but were unable to train adequately because of the need to employ the divisions during the winter and spring of 1918.³¹³ With or without American intelligence regulations in hand, the divisions which arrived and began training under British or French tutelage learned how to do things the allied way. The following chapter will examine intelligence training in the AEF in light of this point.

³¹³ Memorandum from Marlborough Churchill for the Chief of Staff, General Staff, War Department, Subject: Training of Positive Intelligence Personnel, August 1918, File Lectures, AIS Miscellaneous Data, RG120, NACP, 1-2 .

Chapter 5: Unit and Schools Intelligence Training

Introduction

The AEF now possessed intelligence doctrine and organization derived mostly from the BEF. The next challenge was to organize the intelligence sections of the arriving divisions and imbue them with this doctrine through training. Increasing the difficulty of the challenge was the time it had taken to develop intelligence doctrine and organization. When the infantry regiments of the 1st Division began arriving in France at the end of June, Nolan had only made some preliminary visits to the French and British intelligence services.³¹⁴ When the Baker Mission sat down with the AEF Headquarters in early July 1917 to hammer out the structure of the army, Nolan had neither intelligence doctrine nor organization to present before the conference. The AEF did publish Intelligence Regulations at the end of August, but the three combat divisions arriving after the 1st Division (2nd, 26th and 42nd) all arrived before the publication of the *Instructions for Regimental Intelligence Service* in December 1917.

In contrast to the specific intelligence function, the American army had doctrine, as outlined in the *IDR* and *FSR*, and organization, as reflected in the Tables of Organization of May 1917. On the other hand, Pershing and the War Department anticipated at least some

³¹⁴ Nolan, had decided before arriving in Europe to tentatively adopt the British model for intelligence doctrine and organization, and he had visited both the French and British armies to observe their intelligence services in action. He at least had an idea of what they might look like, but there was nothing authoritative.

changes in organization and how the army would fight based on developments in Europe from 1914 to 1917. The conduct of training obviously depended on unit organization and doctrine, so the AEF needed to resolve changes as rapidly as possible in order to hopefully avoid making too many changes while conducting training.

The French had been thinking about training the Americans from the moment Congress declared war. French Minister of War Paul Painleve and General Robert Nivelle, then commander of the Armies of the North and Northeast, had proposed to amalgamate American soldiers directly into the French army in companies and battalions. American troops would train in the depots of the divisions to which they would be attached. Field Marshall Joseph Joffre had opposed Nivelle's plan, thinking the Americans would never accept it. He proposed offering assistance to the Americans by providing weapons, equipment, and training through French advisors. When Joffre arrived in the United States as the head of the military portion of the French mission, he met with Secretary of War Newton Baker, Chief of Staff Major General Hugh Scott and other senior American officers. Joffre urged the Americans to send a division over as quickly as possible, and proposed the French would provide all the essential equipment (grenades, machine guns, trench mortars, cannons, etc.) and training the Americans would need.³¹⁵ The day Pershing and his party left on the *S.S. Baltic* for Europe, Frank Parker, Chief of Liaison group at the French General Headquarters sent a note to the Chief of the American Military Mission in Paris outlining the detailed French proposals

³¹⁵ Robert B. Bruce, "America Embraces France: Marshal Joseph Joffre and the French Mission to the United States, April-May 1917," *Journal of Military History* Volume 66 No. 2 (April 2002), 415-417, 421-422.

for training American forces. Though he may not have realized it at the time, Parker highlighted the key training consideration in his second point:

If the French army is to be our model and if the American is to fight beside the Frenchmen according to the latter's methods, then the training of American troops should be done in as close contact as possible with the French troops...³¹⁶

This assumption would be challenged soon enough.

General Pershing recognized the great importance of training to an army which needed to grow by twenty-fold over its peacetime strength. When he arrived in France, he accepted the proposal to equip and train American divisions with French advisors. Pershing also published General Order Number 8, creating a Training Policy Section (later known as the Fifth, or G-5 Training, Section) of the AEF Headquarters to supervise training for American units. Eventually this Training Section would oversee the creation of over twenty army, corps, and division level schools. But at the end of June, when the initial elements of the First Division began arriving in France, there was no training organization. So the division initially trained under the supervision of the French 47th “Chasseurs Alpin” Division.³¹⁷

³¹⁶ Chief of Liaison Group, G.H.Q., “Outline of Procedure for American Troops on Arrival in France,” 28 MAY 1917, *USAWW*, Vol. 3, 238-240.

³¹⁷ The French *chasseur* division was itself not a standard infantry division of the French army. Standard French divisions contained three regiments each of three infantry battalions. *Chasseur* divisions contained the *chasseurs a pied* battalions (which contained six companies instead of four in a standard infantry battalion) which had been independent but were consolidated during the course of the war. General Staff, War Office, *Handbook of the French Army, 1914*, [1914] (Nashville, TN: Battery Press, 1995), 202. See also Theodore Roosevelt, *Average Americans* (New York and London: Knickerbocker Press, 1919), 44-45, for a description of the *Chasseurs Alpins* and their different culture compared to the French infantry.

The Training Section, with the assistance of Brigadier General Robert L. Bullard and Colonel James W. McAndrew, outlined the framework of the AEF schools system while the First Division trained with the French. The First Division training program had a significant impact on the AEF, though perhaps not in the way the French intended. After observing the First Division training program, Pershing, AEF Adjutant General Benjamin Alvord, and other officers decided they did not like French training methods. They decided to Americanize training as soon as it was feasible. As soon as it was practical, the Americans detached personnel from the General Headquarters and the First Division to be instructors in the schools.³¹⁸ Nevertheless, the first divisions to arrive in Europe trained under French and British instruction in the corps and divisional schools.³¹⁹

Historians have focused great attention on American rejection of allied training methods and doctrine, the confused nature of AEF training with its open and trench warfare components, and insufficient time to complete all proposed training. Intelligence personnel shared with the rest of the AEF in the lack of training time and qualified instructors. At division level and below, AEF intelligence personnel had to deal with the different training challenges of collecting intelligence in an open or trench warfare setting. To a certain extent, however, intelligence personnel did not have doctrinal problems because the critique of allied methods focused primarily on the employment of

³¹⁸Smythe, *Pershing*, 31; Edward M. Coffman, *The War to End All Wars: The American military Experience in World War I* (New York: Oxford University Press, 1968), 135-139. This process was not completed until the middle of 1918. A list of all the conferences and lectures for the second course of the Army General Staff College shows the vast majority of instructors were still British or French, "Army General Staff College, AEF, France, Second Course," File Miscellaneous Data, AIS Miscellaneous Data, RG120, NACP.

³¹⁹The 1st Division had been in France since July 1917. The 2nd, 26th, and 42nd Divisions arrived between October and November 1917. The 32nd Division arrived in February 1918. All the remaining divisions arrived in April 1918 or later. Ayres, *War With Germany*, 33.

infantry and its auxiliary arms, not on gathering information to support intelligence. Even when the AEF began to “Americanize” the instructors, allied methods and organizations still permeated AEF intelligence because the American manuals and organization were derived from the allies. American units absorbed allied intelligence methods directly or indirectly whether they trained on their own; trained with a cadre; sent individuals to division, corps, or army schools; or learned “on-the-job.”

The First Division and French Training

If there was any division likely to have learned intelligence methods from the allies, the First Division would be at the top of the list. With barely a week to come together before sailing for France, the units did not have time to conduct training in the United States. While ship-board, the units of the First could do little more than exercise for an hour each day and listen to lectures given by any officers who “may have gained some theoretical familiarity” with trench warfare.³²⁰ When the first elements of the division arrived, the AEF headquarters had not even settled on the future organization of all units in the AEF, let alone the intelligence sections, and there were no published American intelligence regulations. The division desperately needed intelligence training. Yet paradoxically, the lack of published regulations and established organization meant the division would learn rather less from the French because the division and AEF staffs deferred such training until questions of organization and methods were resolved.

³²⁰ Edwin S. Stone, “Training the First American Division for Com at in France, 1917-1918,” (MMAS Command and General Staff College, Fort Leavenworth, KS, 1977), 6.

As the elements of the division landed in France, the division headquarters published its initial training guidance. With over half of the units consisting of recent recruits, and with the AEF Headquarters focused on developing the future division organization, the First Division staff chose to focus on the most basic individual soldier skills. The training guidance thus emphasized developing military discipline and appearance through close order drill, physical training, road marches, and signaling. In addition, guidance called for rifle sighting and aiming drills focusing on rapid fire.³²¹

It took several weeks for the AEF Headquarters to work out the details for the training of the First Division with a French cadre of trainers and advisors, although the Americans essentially followed the plan proposed by the French and American liaison team in late May when General Pershing was sailing for France. Even when the details were worked out in mid-July and the division ordered to concentrate in the vicinity of Gondrecourt, the training focus for the division continued to be disciplinary training, physical fitness, and drill. Division training guidance called for the focus to remain on improving the discipline and fitness of the unit until the first week of August.³²² While this meant the division did not really perform any intelligence training, Nolan had not yet published the intelligence regulations or organizations, so there was little to give the division anyway.

By mid-July, the AEF worked out many of the details for the French to begin training with the First Division and subsequent divisions in more specific warfighting

³²¹ Stone, "Training the First Division," 7.

³²² Stone, "Training the First Division," 8.

tasks. The French 47th Division's instructions were to serve as a model for the American division by:

- 1) demonstrating French methods of combat
- 2) facilitate the establishment of First Division schools
- 3) assist in the formation of schools for the American Second Division using selected officers and NCOs from the First Division and members of the Second Division advance party
- 4) prepare to send American officers and NCOs to French army and corps schools who would eventually become instructors in the American army schools.³²³

The French program provided for sixteen weeks of training broken down into two week blocks:

- 1st block – Select specialists, train officers and men together in field work; organize division schools,
- 2nd block – train specialists, conduct close order instruction; half of American troops serve in front line with French troops
- 3rd block – company, battalion, and regimental exercises; half of American troops serve in front line with French troops; instructors for division schools to French Army schools
- 4th block – two regiments assigned by companies to front line with French units
- 5th block – other two regiments serve in front line
- 6th/7th block – division level instructional
- 8th block – American division takes sector of the line as a whole.³²⁴

The French program of instruction presupposed the American soldiers had sufficient general military training to begin focusing on specific trench warfare skills. This was unfortunately not the case. Major General William L. Sibert noted over half of the soldiers were new recruits without training, virtually all the lieutenants had been officers for less than six months, few of the NCOs had been in service for more than two

³²³ Stone, "Training the First Division," 8-9.

³²⁴ Stone, "Training the First Division," 12.

years, and the staffs assembled for the first time on arrival in France.³²⁵ Leadership in the AEF Headquarters, First Division, and French command subsequently adjusted the training program of the First Division several times. The French led training in the mornings in accordance with their training plan, while Americans conducted training in the afternoons.³²⁶

A typical day of training for the 16th and 26th regiments included first call and breakfast around 0600 or earlier depending on the length of the march to the training area. Within an hour the unit was on the march. At the training area the units conducted training in machine gun assembly and firing, *chauchaut* automatic rifle drill, hand grenade throwing, rifle grenade firing, signaling, rifle and bayonet drill, trench digging, first aid, gas mask drills, mapping, and maneuvering in and out of the trenches.³²⁷ The training again did not specify specific instruction in intelligence duties, which for the infantry regiments would include scouting and patrolling, observation posts, sniping, and collection of information to be interpreted and passed to higher level intelligence personnel.

At the end of August, when the 47th Division had almost finished its training rotation with the First Division, half of the Americans were supposed to enter the front line in small groups under French control while the other half continued individual and

³²⁵ Stone, "Training the First Division," 9-10; *Blue Spaders: The 26th infantry Regiment, 1917-1967*, ed. Steven Weingartner, Cantigny Military History Series (Wheaton, IL: Cantigny First Division Foundation, 1996), 5-6.

³²⁶ Stone, "Training the First Division," 15.

³²⁷ A. A. Hoehling, *The Fierce Lambs* (Boston and Toronto: Little Brown and Co, 1960), 111; Roosevelt, *Average Americans*, 55-56.

collective training.³²⁸ Pershing vetoed this plan and instead directed the First Division to continue general training at higher levels on their own and with attached French units. The French 18th Division provided a revised program of instruction which included company exercises in open warfare and battalion exercises in trench warfare. The First Division began executing this training plan in September. Divisional specialist schools also began in September, though it appears again that there were no specific intelligence schools.³²⁹

Throughout the intervening months discontent with the training of the First Division grew at the AEF Headquarters. This discontent was directed at the leadership of the American division (the division commander was eventually relieved) but also at French training methodology. In the middle of September the Inspector General, Brigadier General Andre W. Brewster, reported the training, “was much too Gallicized with not enough practical application and tactical decision making.”³³⁰

The problem was not that the Americans and French could not get along together. One American battalion commander later remarked, “I have seen time and time again a group composed of two or three *poilus* and two or three doughboys wandering down the street arm in arm, all taking at once, neither nationality understanding the other and all

³²⁸The French 18th Division assumed training duties from the 47th Division on 8 September. 3rd Section General Staff French Armies of the North and Northeast, “Directive for Training American Troops,” 10 SEP 1917, *USAWW*, Vol. 3, 437-438.

³²⁹ 1st Division AEF, General Order Number 39, “Division Schools,” 1 SEP 1917, *USAWW*, Vol. 3, 435; 1st Division A.E.F., “Divisional Training,” 10 SEP 1917, *USAWW*, Vol. 3, 436; 1st Division A.E.F., “Instruction and Training 1st Division,” 10 SEP 1917, *USAWW*, Vol. 3, 439.

³³⁰ Millett, *The General*, 321; also cited in Stone, “Training the First Division,” 17.

having a splendid time.” The battalion commander respected his French advisors and learned what he could from them.³³¹

The challenges he and other Americans described in training with the French grew out of differences in the two cultures, magnified by lack of a common tongue. Americans did not understand the role of *politesse*³³² in French life, in the expectations of the French to observe certain formalities. Even military conversation preserved this form: “Each participant first expresses himself on the virtues and great deeds of the other, and after this the sordid matter of business in hand is taken up.” For Americans used to more direct conversation, working with the French (and vice versa) could be quite frustrating.³³³ These little and big cultural differences came to be thought of as a “French temperament” very different from the Americans. The 26th Infantry Regiment tried to attach French NCOs to American companies in order to help overcome these differences but it mostly did not work well.³³⁴

French training methods sometimes enhanced the difficulties. One of the more stultifying of the French methods was to perform a technique or maneuver while the Americans watched. Major George C. Marshal Jr., then the operations officer (G-3) for the First Division, commented on the tendency for the French to want to demonstrate trench warfare methods while the Americans watched. Others also noted this tendency, and the First Division commander had to prevail upon the French 18th Division

³³¹ Roosevelt, *Average Americans*, 50, 59.

³³² In English, “politeness.”

³³³ Roosevelt, *Average Americans*, 38.

³³⁴ Roosevelt, *Average Americans*, 61.

Commander, General Bordeaux, to allow the Americans to conduct the training while the French advisors watched and offered solutions from their experiences.³³⁵

Later observations by Americans were even more direct and critical. In January 1918, General Pershing met with the Chief of the French military mission at HQ AEF, General Raguenau, who was pressing for incorporating American regiments into French divisions for operations as well as training. Pershing responded that Americans were better judges of training than the French and that training progressed better and faster without French than with them, because of the language difficulties and different methods of the two nations. If forced to place American troops on the front line in an emergency, Pershing would choose the British instead of the French to at least have a common language.³³⁶ In March, Lieutenant Colonel Hugh Drum, on an inspection of the 42nd Division, noted “the national characteristics of the two races (French and American) present insurmountable obstacles. It is therefore recommended that as soon as possible, the preliminary training in the front line of our new divisions be carried out in conjunction with our own trained divisions.”³³⁷ In April 1918, Colonel Fiske recommended pulling the 2nd Division out of the trenches near the beginning of June to allow it three to four weeks of training for open warfare because “long continued service

³³⁵ Stone, “Training the First Division,” 25; Roosevelt, *Average Americans*, 58-60. Roosevelt also said the French naturally wanted to relax and enjoy themselves while out of the line training the Americans, whereas the Americans (at least the officers) wanted to work incessantly to catch up to the French level of warfighting skill.

³³⁶ General Headquarters A.E.F., “War Diary Item 212-b, 7 JAN 1918, *USAWW*, Vol. 3, 263-264.

³³⁷ 3rd Section General Staff General Headquarters A.E.F., “Comments on Tour of 42d Division in Front Line,” 27 MAR 1918, *USAWW*, Vol. 3, 683-684.

in the trenches lowers morale and discipline.”³³⁸ In June, Colonel Fox Conner responded to the continued desire of the French to amalgamate American regiments into French divisions by noting “many of our officers, and, it is believed, soldiers are distinctly disgusted with French tutelage...we must never consent to permitting the French to control the preliminary instruction of our troops. French methods are not suited to our troops, and we should not delay longer in telling the French so in plain language.”³³⁹

While all these comments reflect dissatisfaction with the French, they highlight that the big issues with training under the French were the cultural differences between the two countries, the poor French training techniques, and poor French morale, which Pershing and others thought was due to service in the trenches. These critiques did not stop the Americans from sending their artillerymen, tankers, and aviators to French schools. American infantry units kept the hand grenades, rifle grenades, *chauchat* automatic rifles, and machine guns they received from the French. The AEF still used translated French manuals.³⁴⁰ The critique of trench warfare was not so much the specific methods of trench warfare but how Americans thought trench warfare affected the morale of the army, especially to attack.

The AEF Headquarters became much more involved with the training of the First Division and the newly arriving 2nd, 26th, and 42nd Divisions at the beginning of October. Perhaps the tipping point bringing Pershing and the AEF staff further into the details of

³³⁸ G-5 GHQ A.E.F. To Chief of Staff GHQ A.E.F., “Training Divisions Outside of Trenches,” *USAWW*, Vol. 3, 519.

³³⁹ 3rd Section General Staff General Headquarters, A.E.F., “Recommendations Regarding American Units,” 22 JUN 1918, *USAWW*, Vol. 3, 323-324.

³⁴⁰ 3rd Bureau, Armies of the North and Northeast, French Training of American Units guidance, 1 MAY 1918 *USAWW*, Vol. 3, 292-295.

training was the 3 October inspection by Pershing of the 2nd Infantry Brigade in offensive trench warfare. Major Marshal notified Major Roosevelt's 1st Battalion, 26th Infantry the evening prior to ask Roosevelt to put on the demonstration. Roosevelt agreed and roused his men to march that night to reach the "Washington Center" training area by morning. After Pershing and his entourage observed the training, Pershing called the officers together to critique the training event. General Sibert, who had not even seen the training event because he had still been enroute, fumbled through some questions before Pershing directed another officer to finish, and then Pershing "just gave everybody hell" over how the exercise had gone. Marshal then risked his own position to respond to Pershing. He said the fault for the exercise was neither the regiment's nor the division's but the AEF headquarters itself for failing to provide the guidance needed for the First Division to execute as Pershing desired.³⁴¹

Apparently, Marshall's comments made an impact, for just three days later, the AEF headquarters produced the "Program of Training for the First Division, AEF: The General Principles Governing the Training of Units in the American Expeditionary Forces." The memorandum highlighted eight principles:

- 1) The methods employed would be our own.
- 2) All instruction would contemplate assumption of a vigorous offensive.
- 3) American regulations and manuals are sufficient guides and modifications will be issued from HQ, AEF.
- 4) Rifle and bayonet are the principal weapons of infantry.
- 5) Standards for the American army will be those of West Point as regards discipline, bearing, attention to detail, and obedience.
- 6) Training will develop progressively from the squad level upwards.
- 7) As soon as elementary proficiency is attained the applicatory method will begin.

³⁴¹ *Blue Spaders*, 12-15.

8) Each tactical exercise will be followed by a critique.³⁴²

Some of these, like the eighth principle, reinforced Pershing's observations from a few days before. Others, like principles one, three, and four, appeared to call for abandoning at least some French methods. Yet reliance on French manuals and French advisors continued, partly because there were not enough American instructors to replace them.

Intelligence within the First Division does not appear to have been affected much by these training changes, primarily because little in the way of intelligence training had been done. General Orders Number 50 created the First Division staff organized along the lines of the AEF at the end of September 1917. The staff organization included an intelligence section, but the organization chart linked the Signal Officer and the Intelligence section together with a dotted line and placed the signal officer under the intelligence officer.³⁴³ On 10 October, the division published an intelligence organization for the division, brigades, regiments and battalions. The organization at each level basically modeled the BEF Organization (and the American "Instructions for Regimental Intelligence," which would be published in December).

Just two days later the division published a memorandum for the training of intelligence personnel at battalion level and below. The memo called for two days of special training on the 15th and 16th of October with companies doing patrolling and

³⁴² Douglas V. Johnson II, "Training the 1st Division for World War I," *Cantigny at Seventy-Five: A Professional Discussion, May 28-29, 1993*, Cantigny Military History Series (Wheaton, IL: Robert R. McCormick Tribune Foundation, 1994), 66-67.

³⁴³ Headquarters First Division A.E.F., General Orders No. 50, 28 SEP 1917, *War Records First Division*, Vol. 5.

battalion intelligence training under the division intelligence officer.³⁴⁴ The timing may have been completely coincidental to the changes which Pershing called for. But the instruction was to be carried out by the senior U.S. officer for intelligence in the division, not by a French instructor. That officer, of course, may have trained at either a British or French school on intelligence, though even if not, the *Intelligence Regulations* (based on British intelligence methods) were available as a reference. When Major Roosevelt's battalion later served time in October in the front line trenches under the French 18th Division, the ambitious members of his intelligence group sniped at German trenches a mile away. This shows the units of the division quickly detailed and trained the intelligence personnel required.³⁴⁵

In late November, the First Division headquarters issued an updated intelligence organization which added observers to the regimental headquarters.³⁴⁶ The next mention of intelligence personnel in regard to training in the First Division was not until December 1917. A First Division Operations Section memorandum concerning brigade problems in trench warfare called for intelligence and other specialty officers to enter the line up to forty-eight hours in advance of their unit main body, with intelligence personnel from the relieved unit remaining up to forty-eight hours after the departure of the main body.³⁴⁷

³⁴⁴ 1st Division A.E.F., "Special Training and Instruction of Selected Battalions," 12 OCT 1918, *USAWW*, Vol. 3, 446.

³⁴⁵ Roosevelt, *Average Americans*, 86. It also shows the troops were motivated, if a bit too green to be effective yet.

³⁴⁶ Headquarters First Division A.E.F., General Orders No. 65, 21 NOV 1917, *World War Records*, Vol. 5.

³⁴⁷ Operations Section Headquarters First Division A.E.F., Memorandum No. 1 "Brigade Problems in Trench Warfare" 19 DEC 1917, *World War Records, First Division A.E.F.*, Vol. 20.

Perhaps as a result of the training, the Division Intelligence Section at the end of December called for brigade, regiment, and battalion commanders to assign their best personnel to intelligence work and relieved intelligence personnel of any additional duties to focus solely on their intelligence duties. The same day the Division Intelligence Section tasked the infantry regiments and battalions with sending all intelligence officers and NCOs to the division for five days of training.³⁴⁸ During the course of instruction, the Division Adjutant sent yet another memo to the subordinate units requiring them to notify the headquarters in writing if any intelligence, bombing, or gas officers were changed along with a justification for the change. The memo also called for selecting the best personnel as observers and keeping the scouts and observers together as much as possible.³⁴⁹

In the middle of January the First Division returned to the front lines in the Toul sector under the French 1st Army, assisted by the Moroccan Division and French 69th Division. By this point most French advisors had departed, although General Monroe's staff members from the 69th Division were so willing to help they caused resentment in officers like Marshall, the division G-3, who felt the French did not trust the capabilities of the Americans.³⁵⁰ At brigade and lower levels, however, the Americans completely owned the terrain.

³⁴⁸ Intelligence Section General Staff First Division A.E.F., Memorandum No. 62 "Intelligence Details," 31 DEC 1917, *World War Records, First Division A.E.F.*, Vol. 4.

³⁴⁹ Headquarters First Division A.E.F., Memorandum No. 1, Change in Intelligence, Scouting, Bombing, and Gas Officers, 4 JAN 1918, *World War Records First Division*, Vol. 4.

³⁵⁰ George C. Marshall, *Memoirs of My Services in the World War, 1917-1918* (Boston: Houghton Mifflin Company, 1976), 61.

The First Division eventually completed its tour of the front lines and its training with the French. It is difficult to discern what, if any, impact the French had on intelligence training in the First Division. The focus of training for the first few months when the French were most involved was developing discipline and basic soldier skills. The intelligence organization of the division was not set out until October, and then the American division intelligence officer trained the subordinate personnel. After some organization adjustments in November and the publication of regimental intelligence instructions in December, the Division Intelligence Section again provided the training for the subordinate intelligence personnel. The presence of French advisors with American troops surely resulted in some conversations wherein a French NCO or officer provided advice based on his personal experiences. A First Division history notes the 1st Moroccan division and some American officers who received training in the British sector helped plan raids when the division was in the Ansauville sector.³⁵¹ Regrettably, more details of these kinds of interactions have gone largely unrecorded.

American Divisions in the British Sector

In terms of intelligence training, American divisions sent to the British sector had major advantages over the divisions training with the French. The two most obvious are the common language of the two armies and the American regulations which copied British intelligence methods and organization. Pershing probably was not thinking about these advantages when he first authorized American divisions to train with the BEF. He

³⁵¹ History First Division World War, 51-52, 55-61.

originally had not intended for American units to be associated with the British since that would delay his goal of establishing an independent American army in charge of a sector of the front line. After several months of working with the War Department to obtain troops rapidly enough to complete his plans for organizing an independent army, Pershing realized the goal could not be met without help from Britain.

In January 1918, the British and American governments agreed to the “Six-Division Plan,” in which British ships transported six American divisions to France in return for the divisions to be trained by the BEF. While General Pershing steadfastly refused to amalgamate American forces with British or French formations, the British continued to press for doing so and saw the Six-Division Plan as a way to move closer toward this goal. As it turned out, a total of ten American divisions went to the British for training. Although the British objected, Pershing took back five divisions in June 1918 to complete training with the French, and he withdrew three more in August, leaving only the 27th and 30th Divisions to complete their training and fight as the AEF II Corps under British army command.³⁵²

The AEF G-5 Training Section was concerned about the training the American divisions would receive from the BEF, especially after the experience of the First Division with the French. Colonel Paul B. Malone, Chief of the Training Section, worried that British system of training in tactics would be substituted for American tactics, and it would “thus become impossible to coordinate training progressively from

³⁵² “Training and Use of American Troops With British Units,” *USAWW*, Vol. 3, 2; For a recent and succinct discussion of the negotiations between the Americans and British concerning the training of American troops with the BEF, see Mitchell A. Yockelson, *Borrowed Soldiers: Americans Under British Command, 1918*, Campaigns and Commanders (Norman, OK: University of Oklahoma Press, 2008), 9-20.

the lowest to highest units.”³⁵³ A joint conference at the BEF General Headquarters with American representatives acknowledged American units needed to be trained in accordance with American regulations and training instructions; therefore training of units out of the line was to rest with the American commanders and staffs.³⁵⁴ During the time the American units were to be on the front lines for training, American staffs would be attached to corresponding British commanders and staffs. The BEF originally intended not to send American officers down to American schools in case the units were required for service on short notice.³⁵⁵ Later they changed their mind so that two officers per company would go to I and II Corps Schools, but they would be replaced with two lieutenants per company taken from the schools. Training books and manuals would be supplied by AEF, except that any AEF manuals originally adopted from the BEF could be directly supplied by the British.³⁵⁶

The AEF provided a centralized program of training for every division to follow while attached to the BEF. Colonel George S. Simonds, the Chief of Staff for the American II Corps, had worked tirelessly with his British counterparts preparing for the training. The program contained three major parts, Phase A, B, and C, each about one month long. Phase A consisted of physical fitness, drill, weapons training, and other specialized individual soldier training. Phase B consisted of periods of training of American troops attached to British units in progressively larger elements. Phase C

³⁵³ Operations Section, Headquarters A.E.F., memorandum for the Chief of Staff, “Recommended Rejection of British Proposal to Train Small American Units,” 16 DEC 1917, *USAWW*, Vol. 3, 7.

³⁵⁴ General Headquarters, British Armies in France, to Headquarters AEF, “Attachment of American Divisions to British Armies,” 8 FEB 1918, *USAWW*, Vol. 3, 42.

³⁵⁵ General headquarters B.E.F., “Instructions for Training American Divisions with B.E.F.,” 12 APR 1918, *USAWW*, Vol. 3, 86-87.

³⁵⁶ General Headquarters, B.E.F., “Training of American Divisions,” 12 MAY 1918, *USAWW*, Vol. 3, 62-64.

consisted of unit collective training in the rear areas from company to regiment sized exercises.³⁵⁷

The six divisions were to arrive between March and May in the following order: 77th, 82nd, 28th, 78th, 80th, 30th.³⁵⁸ First the 77th slipped to April. Then with the German spring offensives the British agreed to bring four more divisions over for a total of ten. The divisions included the 4th, 35th, 28th, 77th, 82nd, 27th, 30th, 33rd, 78th, and 80th.³⁵⁹ To control these units, the AEF created the II Corps Headquarters. Created as an administrative headquarters, the corps did not initially have a G-2, though by June Major Kerr T. Riggs had arrived to take over those duties.³⁶⁰

Meanwhile, after mobilizing, organizing, and assembling in camps across the United States, the divisions had begun preliminary training while waiting to cross the Atlantic. Beginning in October 1917, Britain and France sent between them over 500 officers to assist the American divisions with their training. Beginning with physical fitness and drill, training progressed to small arms, grenades, machine guns, bayonet fighting, gas defense, mortars, and artillery guns. With five officers per camp to serve thousands of men, if not an entire division, the British could only do so much. An officer would have to cover a variety of different topics. Major H. D. Matson, though a machine gun specialist, also helped with instruction in bayonet fighting, hand grenades, Stokes mortars, scouting, and sniping in the 30th Division.³⁶¹ With so few allied officers to

³⁵⁷ Yockelson, *Borrowed Soldiers*, 62.

³⁵⁸ G-3, "Order of Arrival of American Divisions," 11 MAR 1918, *USAWW*, Vol. 3, 59.

³⁵⁹ General Headquarters B.E.F., "Training of American divisions," 22 MAY 1918, *USAWW*, Vol. 3, 99-100.

³⁶⁰ II Corps A.E.F., General Orders No. 1, 19 MAR 1918, *USAWW*, Vol. 3, 114-115; II Corps AEF, Order of Battle, 1 JUN 1918, *USAWW*, Vol. 3, 144; Yockelson, *Borrowed Soldiers*, 34-38.

³⁶¹ Yockelson, *Borrowed Soldiers*, 27-28.

assist in the training, the schools became “train the trainer” events in which the graduates would return to their units and teach the soldiers what they had learned.

In the 80th Division, a sniping officer arrived on 13 February to survey Camp Lee and propose a course of instruction. The first course started on the 25th of February with 25 officers as the students. The course lacked telescoped rifles and other necessary equipment and could not always obtain a range because other units were firing, but three more courses were completed before the division left camp.³⁶²

Other divisions also conducted some intelligence training prior to departing for Europe. In the 2nd Battalion, 107th Regiment, 27th Division, Lieutenant Brady had taught men identified as scouts in intelligence work while at Camp Wadsworth. In the 3rd Battalion, five or six men from each company were assigned to the intelligence section. However, they only trained for a few weeks before sailing orders arrived.³⁶³ In the 131st Regiment, 33rd Division, British and French officer also assisted with training. The regimental intelligence section made maps for the unit as it conducted a ten day long series of road marches in field conditions.³⁶⁴

As the divisions departed the United States, the BEF was making final preparations for the Americans' arrival. The Reserve Army (later 5th Army) assembled instructional staff for the army level infantry schools, including the scout, observer, and

³⁶² 80th Division, Camp Lee Petersburg VA, Progress Reports for December, January, February, March, April, and May 1918, File 280-56.2 Reports on Training, RG120, NARA.

³⁶³ Gerald F. Jacobson, *History of the 107th Infantry, U.S.A.* (New York: Seventh Regiment Armory, 1920), 294-30.7

³⁶⁴ Joseph B. Sanborn, *The 131st U.S. Infantry (First Infantry Illinois National Guard) in the World War* (Chicago, IL: unk, 1919), 25-26.

sniper (S.O.S) school for intelligence personnel.³⁶⁵ As the American divisions arrived, they received advisors from British divisions which had suffered so many losses in previous battles they had been reduced to cadre status. In at least the 27th and 30th Divisions, the British officers attached to the divisions in the United States traveled to Europe with the divisions and continued to train with them until the Americans were ready to enter the line.³⁶⁶

The first division to arrive, the 77th, settled down to begin the first phase of training after assembling at Pas-de-Calais around 6 May. The division absorbed British bayonet drill, combat methods, and a host of smaller details despite the efforts of the AEF and II Corps staff members to ensure training followed the American model. The British tended to take over the actual training from the inexperienced American officers despite exhortations to the contrary.³⁶⁷ By the middle of May, the British reported the 77th Division had received all of its equipment and the 307th and 308th Infantry Regiments had completed preliminary training.³⁶⁸ Two more divisions, the 28th and 4th; began training on 27 May.³⁶⁹ By the end of May, the II Corps staff was planning for the 77th Division to provide officers to assist in the training of the soon to arrive 30th and 78th Divisions, including two intelligence officers.³⁷⁰

³⁶⁵ General Headquarters B.E.F., "Training of II Corps Divisions," 1 MAY 1918, *USAWW*, Vol. 3, 94.

³⁶⁶ Yockelson, *Borrowed Soldiers*, 59.

³⁶⁷ J.O. Adler, Leonard G. McAneny and August Kaiser, *History of the Seventy-Seventh Division: August 25, 1918 – November 11th, 1918* (New York: 77th Division Association, 1919), 21; Yockelson, *Borrowed Soldiers*, 63.

³⁶⁸ Guy P. Dawnay to Viscount Milner, "Arrival of American Division in British Area," 14 MAY 1918, *USAWW*, Vol. 3, 134.

³⁶⁹ Chief of Staff (G-3), II Corps AEF, "Status of Training, 28th and 4th Divisions, 31 MAY 1918, *USAWW*, Vol. 3, 143.

³⁷⁰ Chief of Staff G-3 II Corps AEF, "Arrangements for Training of American Divisions," 30 MAY 1918, *USAWW*, Vol. 3, 141-142.

On 1 June, the AEF G-5 Training section published a report of the inspection of the training of the American divisions in the British zone (the 77th, 28th, 4th, 35th, and 82nd). The report noted the divisions received “little more than elementary training in the United States” especially regarding open warfare. Training in the states had been delayed in many cases due to lack of equipment. The report also noted a tendency of the American leaders to follow the British commanders’ programs and policies. The inspectors claimed to have put the units back on a training program designed by the Americans. Many officers were absent from their units in British schools, slowing the training of small units. In the 82nd Division, for example, the signal officers in the division were scheduled to be absent in schools for the entire training period. For these and other reasons, the inspectors thought the 77th division would not be ready on time to continue to the next phase of training. Finally, the report noted U.S. Regiment and British brigade organizations were different in the crucial area of the regimental headquarters company and supply company, which British brigades did not have. This made it more difficult to supply the battalions in the regiment and support training for the personnel in these two companies.³⁷¹

Shortly after the AEF report, General Ferdinand Foch called for the majority of the divisions to leave the British Front and travel to the French front to relieve French divisions from defense of quiet sectors, with Pershing’s encouragement. Although Haig

³⁷¹ 5th Section General Headquarters A.E.F., “Proposed Reorganization,” 1 JUN 1918, *USAWW*, Vol. 3, 104-106.

objected, Foch as supreme commander had the final say. The 77th, 35th, 4th, and 28th divisions were ordered to move on 5 June, and within the month had departed.³⁷²

The remaining units, which were the most recent arrivals, all had started Phase B by 19 June and were slated to finish their training by mid-July.³⁷³ The AEF II Corps staff inspected two of the divisions, the 27th and 30th, at the end of June and again at the end of July. Colonel Kerr T. Riggs, the II Corps G-2, inspected the intelligence sections in the divisions. He commended the 30th Division's quality training in the U.S. and said the training had continued on arrival in Europe. He found the division was deficient in training substitutes for the primary scouts, observers, and snipers at the headquarters and in two of the infantry regiments. One of the infantry regiments had sent almost no personnel to the S.O.S. School. In the headquarters and two of the infantry regiments, only one or two personnel spoke German.³⁷⁴

A month later, Colonel Riggs evaluated the 27th Division. Even with the additional month of training, the 27th was not as well prepared as the 30th. Partially this was because the unit had very little training in the U.S. The division also had lost time getting organized upon arriving in France. None of the personnel from the division headquarters had attended the British S.O.S. School. Officers in the 106th Infantry Regiment had not attended the school either. Across the infantry regiments, sufficient personnel had not been trained as primaries, and very few spoke German.³⁷⁵ The full report cited deficiencies in map reading, sketching, intelligence, signaling, scouting, and

³⁷² II Corps, A.E.F., Field Orders No. 1, 5 JUN 1918, *USAWW*, Vol. 3, 145.

³⁷³ G-3 [II Corps A.E.F.], "Schedule Phase B Training," 22 JUN 1918, *USAWW*, Vol. 3, 158.

³⁷⁴ II Corps A.E.F., "Phase A Training, 30th Division," 30 JUN 1918, *USAWW*, Vol. 3, 221-222.

³⁷⁵ G-3 II Corps AEF, "Training Notes by Inspector on 27th Division, 31 JUL 1918, *USAWW*, Vol. 3, 208-209.

patrolling, along with confusion over which were the authorized manuals for use in the infantry regiments. Since these skills are especially important for intelligence personnel to master, the problems in the infantry regiments impeded progress in training the intelligence personnel as well.³⁷⁶ After looking at the inspection reports, the American and British II Corps decided to extend training for all but one of the remaining divisions training with the British (the 27th, 30th, 33rd, 80th, and 78th).³⁷⁷

One of the challenges to training was the number of officers and NCOs absent at British or American schools. In order to limit this problem, Major General Read, the II Corps Commander, informed the AEF GHQ the first week of August that no more American students would go to British schools until after completion of Phase B training.³⁷⁸ It might have sounded like a good idea, but since the divisions would finish Phase B training later in August, it only gave two or three weeks back to the units to train with a larger complement of leaders.

Also in early August, the British XIX Corps provided another inspection of the 27th Division. The inspectors thought the division had a good theoretical knowledge of intelligence, but the personnel needed more practical knowledge to know what was useful for the commanders. The inspectors also noted a tendency for units to consider intelligence as something done only by the specifically trained scouts and observers. As

³⁷⁶G-3 II Corps AEF, "Training Notes by Inspector on 27th Division, 31 JUL 1918, *USAWW*, Vol. 3, 208-209.

³⁷⁷British II Corps, Extension of Training Period A for 30th Division," 5 JUL 1918, *USAWW*, Vol. 3, 224; II Corps A.E.F., "Schedule Phase B Training," 20 JUL 1918, *USAWW*, Vol. 3, 164

³⁷⁸MG G. W. Read to G-5 GHQ AEF, "Schools," 6 AUG 1918, *USAWW*, Vol. 3, 169.

a result, the battalions did not set up additional Observation Posts (OPs) beyond those run by the battalion scouts and observers to collect and report information.³⁷⁹

Colonel Hunt from the American II Corps subsequently inspected the third battalions of the infantry regiments in the 80th Division. He found insufficient emphasis in the units on sketching and map reading. Instructions in scouting and patrolling were generally unsatisfactory, although the intelligence personnel had been instructed in the S.O.S. tasks. On the other hand, intelligence personnel had not been instructed in performing as part of an advance or rear guard, and they did not have enough practice in outpost work.³⁸⁰

Colonel Hunt's comments, those of the XIX Corps, and earlier inspection reports reveal the extent of British influence on intelligence training in the American divisions assigned to the BEF for training. Hunt is particularly illuminating because the training he found lacking in the 80th Division (the advance guard, rear guard, and outpost operations) was the very kind of training (open warfare techniques) which the AEF most wanted accomplished. Meanwhile, the S.O.S. training which had been conducted was more suited to trench warfare.

From the organization of the units in the United States, training of intelligence personnel involved allied methods and organizations. Stateside training in the 27th, 30th, 33rd, and 80th Divisions exemplifies the manner in which allied officers trained the American officers and NCOs who subsequently trained the American soldiers. Once the

³⁷⁹ XIX Corps B.E.F., "Notes on Training 27th Division, 13 AUG 1918, *USAWW*, Vol. 3, 213-215.

³⁸⁰ Headquarters II Corps A.E.F., "Resume of Report of Instruction of the Third Battalions, 317th, 318th, 319th, and 320th Infantry Regiments, 80th Division," by Colonel Hunt, 9 AUG 1918, File 280-56.2 Reports on Training, RG120, NARA.

divisions arrived in Europe and came under the supervision of the BEF, these methods continued. Colonel Riggs, the A.E.F II Corps G-2, particularly noted in his inspections those units which had not sent personnel to the British S.O.S. School. Americanization of training, as far as intelligence personnel were concerned, meant applying skills learned as scouts and observers to open warfare tactics such as maneuvering as part of an advance or rear guard. When the 33rd, 78th and 80th Divisions transferred to the U.S./French sector in the latter part of August after completing Phase B training, their intelligence personnel were schooled in American doctrine as derived from the BEF and reasonably trained to execute tasks as scouts, observers, and snipers in a trench warfare setting.³⁸¹ They were not trained to the extent that the AEF General Headquarters desired in open warfare methods. Some had directly attended British schools; the rest learned either from British instructors directly, from Americans who had been to the British schools and were being advised by British officers and NCOs, or by Americans training straight “out of the book.”

Intelligence Training in Schools

Because American intelligence doctrine so closely mirrored British methods, the decision to send all intelligence soldiers and snipers to the British S.O.S. School and all officers and NCOs to the Battalion Intelligence School tended to reinforce rather than detract from the overall training level of the unit.³⁸² These schools were generally

³⁸¹ General Headquarters B.E.F., “Transfer of American Division.” 17 AUG 1918, *USAWW*, Vol. 3, 178.

³⁸² Chief of Staff G-3 II Corps AEF, “Personnel of American Divisions Training with British,” 9 JUN 1918, *USAWW*, Vol. 3, 147-148.

sufficient for the training needs of the enlisted personnel at division level and below. Some divisions actually combined all intelligence personnel together for instruction. This was not really sufficient, however, for training the officers assigned to intelligence duties at regimental level and above. As he received officers to his section, Nolan sent them to either the British or the French army depending on whether they spoke French or not—all those who did trained under the French; those who did not trained under the British.³⁸³

As the AEF Training Section (G-5) began to take control of the training system, they started with a concept of division schools to train officers and NCOs. Although the allies had a version of division schools, this did not work with the American divisions because the commanders did not want to detach their own personnel to conduct the training when the units were going to serve in the front line trenches. Pershing had conceived of Army Corps with six divisions, but only four of the divisions were to operate as combat forces in the field. The other two divisions were to act as base, training, and replacement formations.

AEF Headquarters issued General Orders Number 9 in January 1918, charging the I Corps Headquarters with developing a corps school system. Within a month I Corps had its schools in operation with four week terms (five for artillery).³⁸⁴ With the corps schools in operation and division schools struggling, the Army General Staff College,

³⁸³ Nolan, "Military Intelligence in the AEF," 3.

³⁸⁴ A.E.F. Headquarters, General Order Number 9, 15 JAN 1918, *USAWW*, Vol. , 356-357; I Corps A.E.F., I Corps War Diaries APR 1-14, 24 APR 1918, *USAWW*, Vol. 3, 360-362.

which had opened at Langres, France, suggested replacing the division school system with a corps school system.³⁸⁵

In early May 1918, a conference on the subject concluded this was a good idea and shifted responsibility for most specialized training from division to corps schools. The corps assumed responsibility for the “Infantry School” to train company commanders, platoon leaders, and platoon NCOs, along with a school to train trench mortars, machine guns, signal equipment, and chemical warfare. There was also a corps level artillery school for NCOs and company grade officers.³⁸⁶ Division schools did not completely cease to exist—units in the United States continued with division level schools, and many of these divisions continued some form of division schooling after they arrived in Europe. Corps schools did assume much more of the training burden from division, however.

II Corps Schools

The operations of the II Corps Schools illustrate the methodology of corps schools and the intersection of allied and American doctrine. Like the I Corps Schools, the II Corps schools were responsible for a variety of training, including instructing company grade officers and NCOs, specialty skills soldiers, and intelligence personnel. Colonel H. L. Cooper, who assumed command of the schools on 15 August 1918 as the schools

³⁸⁵ Cooke, *Pershing and His Generals*, 43.

³⁸⁶ Cooke, *Pershing and His Generals*, 81.

commandant, forwarded a history of the schools to the AEF G-5 training Section in May 1918 which provides particularly valuable insights.³⁸⁷

The II Corps Schools contained British and French military missions from the organization of the schools until October, 1918. The British Mission included seven officers and eight NCOs, while the French Mission included thirteen officers and five NCOs. From the organization of the schools until Colonel Cooper arrived and began changing the curriculum, the allied missions had assisted with training American personnel in the technical skills required to operate weapons or perform specific tasks, such as scouting, observing, and sniping. Cooper thought the allies had provided valuable service in teaching trench warfare techniques, but these officers and NCOs “were not entirely in sympathy with our efforts to instruct the students in offensive action in open warfare.” Once Cooper made his changes and saw the allies were not that enthusiastic about the new training, he relieved them of their duties in October, 1918.³⁸⁸

Cooper realized the schools as conducted were missing the point of the training. Officers, NCOs, and soldiers might learn the technical aspects of the various weapon systems they could employ at the school, such as the 37mm “one pounder” gun, 3” Stokes Mortar, and machine guns, but unless they learned how to employ the weapons tactically, they would probably not succeed on the battlefield. Cooper instituted a Board of Directors to coordinate all training so that the instructors could help each other,

³⁸⁷ Colonel Cooper, “History of the 2nd Corps Schools,” 13 May 1919, RG 120, NACP, 1.

³⁸⁸ Colonel Cooper, “History of the 2nd Corps Schools,” 13 May 1919, RG 120, NACP, 7.

training details could be better coordinated, and most important of all, training could be combined in a series of tactical problems.³⁸⁹

Cooper asked the training section of the schools to cap technical training at one half of the coursework and spend the rest of the time focusing on tactical instruction oriented on offensive operations. To support this change of focus, he also organized all of the students into groups, platoons, companies, and a battalion for conduct of training. After receiving approval from Colonel McAndrews personally when McAndrews and Colonel Short visited him, Cooper implemented his plan. Unfortunately, this only reinforced to him the lack of appreciation officers had for the firepower of their platoons and higher units.³⁹⁰

Cooper's statements in the history are particularly interesting because they reflect portions of both trench and open warfare ideas. His description of the purpose of the schools captures this blend:

The whole effort of the Schools was to instill in the student body the ideas that offensive movements in warfare of movement or open warfare could only reach their full success when the officers who were conducting it had full knowledge of the tactical formations best to adopt to meet a given condition, and a greater appreciation of the firepower of an infantry unit.³⁹¹

³⁸⁹ Cooper, "History 2nd Corps Schools," 1-2.

³⁹⁰ Cooper, "History 2nd Corps Schools," 2-3.

³⁹¹ Cooper, "History 2nd Corps Schools," 5.

Cooper went on to explain the majority of students appeared to distrust auxiliary arms like the Stokes mortars or 37mm guns, some complaining that these weapons drew retaliatory fire. The instructors offered a number of demonstrations on how to use these weapons tactically to change the minds of the students.³⁹²

Cooper intended his major contribution to be building a better training system focused on employing the weapons of an infantry unit to their greatest effect in combat. Pershing's emphasis on the ability of infantry units to self-reliantly advance through enemy defenses is reflected in Cooper's comments. Yet the allied reliance on all available support weapons to sustain an advance is also reflected. Cooper lamented the loss of a gun battery to provide practical demonstrations on how to employ accompanying guns with the infantry, as well as the lack of an airplane squadron to assist the students with learning how to communicate properly and mark their positions.³⁹³

Cooper followed Pershing's intent for the AEF in a broad sense by focusing on offensive action in conditions varying from trench to open warfare, with trench warfare becoming "only an incident between attacks."³⁹⁴ He considered all the weapons at the disposal of the infantry besides the rifle to be "auxiliary weapons" as well. But Cooper considered expert employment of these weapons, along with artillery and aviation, to be key to the success of an offensive.³⁹⁵

³⁹² Cooper, "History 2nd Corps Schools," 5-6.

³⁹³ Cooper, "History 2nd Corps Schools," 6-7.

³⁹⁴ Cooper, "History 2nd Corps Schools," 7.

³⁹⁵ Cooper still inclined more to the position of Pershing than of General Summerall noting "it was not difficult to instill into the student the idea that an infantry company or platoon of itself had sufficient power to overcome nearly all obstacles if the proper formations were used," Cooper, "History 2nd Corps Schools," 5.

This blending of allied trench warfare and American open warfare concepts occurred to a degree with intelligence training at the II Corps Schools as well. Both enlisted personnel and junior officers trained in the II Corps Infantry Weapons School. The II Corps Infantry Weapons School's Sniping and Observation Section trained personnel assigned to battalion, regiment, and division scout and observer sections.

Instructional materials for the course included use of telescopic sights, intelligence report formats, construction of observation posts, sniper organization, sighting and aiming drills, and tasks for scout qualification. A three page document on the organization of snipers made no references to open warfare at all. The twelve page document on the organization of snipers contained only one section, not even a page long, on patrolling which included two paragraphs distinguishing between patrolling in open warfare and trench warfare. Most of the material addressed how to physically emplace snipers effectively within the trench lines to target enemy forces for observation and fire. Of the materials saved from the course, the "Scout Qualification Chart" provided the most information relevant to open warfare because it included items like saddling and riding a horse, driving cars or riding motorcycles and changing their tires, telling direction and time by the stars, and signaling by semaphore or wig-wag.³⁹⁶

Unfortunately the files of the II Corps IWS Sniping and Observation School do not contain course descriptions from before and after Colonel Cooper arrived to change the orientation of the schools toward tactical problems. Because AEF intelligence

³⁹⁶See file 202 I.W.S. Training Sniping and Observation, II Corps School (Chatillon – Sur –Seine) General Correspondence, 1917-1919, G-5 Schools, General Staff, General Headquarters, Entry 432, RG120; in particular "Organization of Snipers," 12 pgs; "Organization of Snipers," 3 pgs; Siting and Construction of Observation Posts," 3 pgs; and "Scout Qualification," 3 pgs.

regulations were already based on British methods, as long as the instructors relied on American intelligence doctrine for instruction they were really promulgating British methods. The shift toward tactical work of an offensive nature during Cooper's tenure probably resulted in less emphasis being placed on the details of sniping and observing related to specific trench situations. This evolution of the II Corps Schools program of instruction shows that in the intelligence arena with the closest relationship to infantry tactics, ideas of open warfare had a greater impact.

Army Level Schools

While the Corps Schools primarily focused on training at the level of the company grade officer below, Army Level Schools focused at the level of the company grade officer and above. The School of the Line trained company grade officers for service in the companies, battalions, and regiments of the AEF. The General Staff College trained company and field grade officers for service on staffs from the regiment up to the AEF General Headquarters.

Both schools provided information to the students about intelligence, but the General Staff College trained officers who were destined to become the heads of the intelligence sections for the divisions. Colonel Alfred W. Bjornstad developed the initial program of instruction for the college. Starting with map reading, Bjornstad, progressed the course to lectures on organization and equipment for divisions, corps, and armies. The meat of the course was twenty Leavenworth style map exercises adapted to Western

Front scenarios. The course opened at the end of November 1917 with three U.S. four British, and four French instructors.³⁹⁷

Cooke notes weaknesses in the first course of instruction. The course allotted only two hours for aviation, and none for tanks or chemical warfare. The officers did not get out of the map exercises as much as they might have because there was too little time devoted to actually teaching the staffs their role in preparing orders. Of the seventy-five students, only forty-two passed the course.³⁹⁸

The commandant of schools, Brigadier General McAndrew, and Bjornstad organized refresher courses for brigade and regimental commanders and staffs while they prepared for the second course starting in February. General Pershing asked the War Department to send one hundred officers ahead of their divisions which were training in the U.S. in order to give them the training and return them to their units when the divisions arrived in Europe. The request included three officers per division staff, one each for operations, intelligence, and logistics. Meanwhile, second course adjustments included expansion to twenty-two map sheets, published advance sheets the training for each lesson, and partial transition away from larger lectures to smaller group conferences. By adding more French and British instructors, the second course expanded to 166 students.³⁹⁹

French instructors gave most of the intelligence classes. This created challenges for the students as the French officers related their experiences, methods, and

³⁹⁷ Cooke, *Pershing and His Generals*, 33-36.

³⁹⁸ Cooke, *Pershing and His Generals*, 36.

³⁹⁹ Cooke, *Pershing and His Generals*, 37-42.

organization which were different from the British methods and organization upon which American regulations were based. A first course lecture by a French officer on the subject of regimental intelligence, for example, stated the regimental intelligence officer would be assisted by an NCO in each subordinate battalion. In British and American organizations, however, each battalion contained an intelligence officer, enlisted personnel to support the officer, and scouts, observers, and snipers. Even the regimental intelligence officer had a section of observers able to provide information directly in support of the unit.⁴⁰⁰

General Nolan later minimized the impact of these differences on AEF intelligence. He had been sending French speaking officers to French units to receive intelligence training since the fall of 1917. When selecting graduates from the General Staff College he also chose the best officer graduates whether they had focused on intelligence at the college or not. The problem partially resolved itself between the second and third course as the scale of the German offensives beginning in March 1918 became clear. Divisions with personnel in the school demanded their people back, the British withdrew their contingent of instructors, the next Staff College course did not start until September, and in the meantime Nolan created his own intelligence course.⁴⁰¹

⁴⁰⁰ 1126-001 Army General Staff College A.E.F., "Regimental Intelligence Service," Conference No. 20, 4 JAN 1918, File [Regimental Intelligence Service], AG Staff College; {Lectures, Outlines, Issuances, and Other Records Used in Courses at the Army General staff College, 1918-19}, AEF General Headquarters; G-5 Schools; Box 1966, Entry 362, RG120, NACP.

⁴⁰¹ Cooke, *Pershing and His Generals*, 42, 82.

Conclusion

With doctrine and organization in hand, the AEF began training personnel for their assigned intelligence duties. American divisions trained under French and British tutelage in the United States and in Europe. American personnel attended French, British, and American schools teaching intelligence methods. Enlisted and junior officers attended division and corps schools, while company and field grade officers attended the School of the Line and Army General Staff College. The experiences of personnel in training varied among units and schools. Personnel in the First Division arrived before the AEF even had intelligence regulations and organization. They were trained by a succession of French divisions before commitment to the front lines. Yet paradoxically, the division appears to have assimilated less French intelligence methods and organization than they could have. The division did not train intelligence tasks until later in the training cycle when personnel had access to the AEF intelligence documents, whether provisional documents or those approved by the War Department. American leaders led intelligence training, and they organized the intelligence personnel according to American regulations, which essentially meant the First Division mirrored British, not French organization.

American divisions training with the British, however, greatly benefitted from the association. Officers and soldiers attended the British S.O.S. School and Battalion Intelligence School. Inspectors found unit training tended to devolve upon the British advisors as leaders of the training, while open warfare training suffered at the expense of

trench methods differed significantly this would have been a problem. Since American intelligence was so directly modeled off the British system, such close association appears to have reinforced the American unit's knowledge of AEF doctrine.

Ironically, where potential for conflict between American and allied methods appears to have been the greatest was in the Corps Schools and Army General Staff College. Through August 1918, the Corps Schools provided technical instruction for weapon systems and specialty skills such as scouts, observers, and snipers. This was well suited to American intelligence methods and organization as derived from the British. When Colonel Cooper began reorienting the II Corps Schools toward more tactical application, the skills taught at the school were still generally applicable, but the intelligence emphasis would shift away from observing and toward patrolling. American intelligence doctrine contained references to open warfare which the British included in their doctrine; but Cooper supplemented these with citations from the *Infantry Drill Regulations*.

With American intelligence methods so closely aligned to the British model, conflict and confusion primarily could result when Americans were trained by Frenchmen. French instructors at the Army General Staff College illustrate this potential for conflict in the way they instructed American officers in a regimental intelligence system that followed French, not American/British organization.

As the Americans gained their own experiences in the war, there was also a potential for American intelligence practice to begin to drift away from its primarily British origins. Would Nolan and the AEF continue to observe allied practice after

creating their own organization and methods? The following chapter explores this question.

Chapter 6: Continuing to Draw Knowledge From the Allies

The AEF did not stop examining the allied intelligence services once the first *Intelligence Regulations* were published in August, 1917. Nolan continued to allocate personnel to gather information about allied intelligence methods and organization throughout the war. After the initial visits to the allies by Nolan and his assistants, the intelligence section obtained information from the allies through four main methods. Nolan sent as many of his officers to the French and British armies as possible in order to inspect allied methods and learn by serving on allied staffs. Other officers went to allied schools. Allied instructors taught intelligence classes in a number of American schools, including the Army Intelligence Course once it was created. Finally, American officers requested information through the allied military missions. Nolan stressed the need for the AEF to coordinate, cooperate, and learn from the allies throughout his tenure as the head of AEF intelligence. This chapter will focus on personnel who traveled to the allied armies after the publication of the American Intelligence Regulations. The following chapter will examine American methods of gathering intelligence knowledge in the effort to create and sustain an Army Intelligence School.

Hubbard Visits the BEF

One of the most notable tours of the allies Nolan sponsored was made by Captain Hubbard. Despite the mix-up with his call to active duty, he had been with Nolan and Conger since their travel to France on the *S.S. Baltic*. Nolan had briefly assigned him to be an economic expert before Hubbard took over the Order of Battle section of the G-2-A, Military Information Division, under Conger. Hubbard traveled to the British front in December 1917 after his section had been operating for several months.

Hubbard provided the most extensive written feedback of the officers sent to visit the allies. He observed the work of the Canadian Corps, 1st Army, and BEF Headquarters from 18 to 24 December, focusing on the operations of the British section which performed duties similar to his own G-2-A section.⁴⁰² Hubbard brought back thirty-one documents from the organizations he observed (see Appendix D: List of Documents Samuel T. Hubbard Obtained from BEF). Among the items he obtained were the results of a staff conference on division intelligence, lists of destructive and harassing fires conducting by Canadian forces, outlines of organization and duties of intelligence personnel at brigade, division, and army level, and a 3rd Canadian Division report on the Battle of Passchendaele.⁴⁰³

In his report, Hubbard outlined procedures which should be copied from the BEF, or conversely, which should be avoided. For example, he proposed adapting a card index system which the British General Headquarters was using to track all German heavy artillery. Hubbard also recommended sending two officers to the captured document

⁴⁰² Samuel T. Hubbard, Memorandum "Report on Trip to British General Headquarters," 1 January 1918, File Conger, Arthur L. TLC WWI 1798, Arthur L. Conger Papers, USAMHI, 1.

⁴⁰³ "Annex," Arthur L. Conger Papers, USAMHI.

school to learn how to translate expressions the same way, and he suggested the AEF eventually create a similar American school or method of training teach document officers. He praised the system of train watching in the rear of the German lines from Champagne to the Alsace, as the British had in Belgium and Northern France, although he was unsure whether it would be feasible for the AEF to do so. Hubbard was more sceptical of other secret service reports, the results from which he felt were not worth the effort expended. Although Nolan and potentially even the AEF were unlikely to be the final decision maker for such a request, Hubbard recommended against any arrangement with the Germans to avoid taking away the paybooks of prisoners of war. He noted the British had made such an arrangement with Germany, which inhibited their ability to exploit the information of intelligence value in the books.⁴⁰⁴

The subject of wireless interception was of particular importance to Hubbard. He thought wireless identifications of German units were basically always correct and “by far the most valuable identifications of divisional positions” besides capturing a prisoner. In a sense, they were more valuable than capturing a prisoner because wireless intercepts could provide timely indications of future activity. Hubbard could not

recommend too highly that every effort be made to immediately equip Major Moorman with all the necessary apparatus and with every assistant even if other branches of our intelligence section must temporarily suffer, so that this phase of

⁴⁰⁴ Hubbard, “Report on Trip to British General Headquarters,” 2, 4-7.

intelligence work will have the greatest possible development before we take over a sector.⁴⁰⁵

Interestingly, Hubbard did not call for the AEF to copy British wireless interception practices; he only called for the AEF to greatly increase the level of effort in this area. The U.S. Army Signal Corps had been experimentally employing wireless collection systems along the Mexican border in support of the punitive expedition, while Major Moorman had developed ties to the French wireless intelligence sections. The need for drawing upon technical knowledge from the BEF in this area was therefore not as great as in other areas.

Despite the variety of suggestions Hubbard made in his report, he concluded his discussion of the BEF headquarters by saying, “so far as our own work at general headquarters is concerned, I can see little now that can be improved upon, with the exception of the card indexes to German heavy artillery batteries.”⁴⁰⁶ He still had more to say, however, about his trip to the Canadian Corps.

Hubbard was especially impressed with the Canadians. Hubbard described several Canadian intelligence procedures he thought the AEF should adopt. He particularly liked the “Log System” which the intelligence section employed. The Log System was based on a graphic depiction of intelligence information on a 1:10,000 map

⁴⁰⁵ Samuel T. Hubbard, “Report on Trip to British Front,” 3 January 1917, File Arthur L. TLC WWI 1798, Arthur L. Conger Papers, USAMHI; Hubbard, “Report on Trip to British General Headquarters,” “5, 8.

⁴⁰⁶ “Summary of Reports Received, 13th November to 26th November 1917,” No’s 85 and 86, General Staff (Intelligence) GHQ, 2 December 1917, File Arthur L. LTC WWI 1798, Arthur L. Conger Papers, USAMHI; Annex to Memorandum from Hubbard to Nolan, Subject: Report on Trip to British Front, 3 January 1918, File Arthur L. LTC WWI 1798, Arthur L. Conger Papers, USAMHI; Memorandum from Hubbard to Nolan, Subject: Report on Trip to British Headquarters, 1 January 1918, Arthur L. Conger Papers, USAMHI, 6, 15-20.

matched to a log book. Each day the subordinate units reported German activities to the intelligence sections which drew in the activities on tracing paper (like an overlay) on top of the trench map. Each event was numbered, and a matching entry was made in the log book with the details of the event. Hubbard found this method allowed anyone to quickly determine the buildup of German defensive positions or changes in activity patterns over the week-long period in which each tracing was kept. By plotting German shell fire in British lines pointing back to the point of origin, the Canadians could also determine how many guns could be fired at a given point of the line and where the Germans focused their artillery effort. This gave the Canadians useful information when planning attacks or just protecting their own forces.⁴⁰⁷

After describing several other useful techniques employed by the Canadians, Hubbard concluded his report by recommending the AEF pursue as close a relationship with the Canadians as possible. He thought the Americans could “obtain a great deal of very valuable information from them.” Aside from their technical abilities, Hubbard also appreciated their similar temperament to Americans and even greater willingness to assist the AEF.⁴⁰⁸

Other Visits to the British and French

Nolan continued to send officers to the allies for observation and training. U.S. officers tried to draw from a broad selection of different intelligence organizations and

⁴⁰⁷ Hubbard, “Report on Trip to British General Headquarters,” 15-16. Also see Appendix D: List of Documents Samuel T. Hubbard Obtained from BEF.

⁴⁰⁸ Hubbard, “Report on Trip to British General Headquarters,” 20.

operating procedures. Some items were very mundane, such as cover sheets with routing and transmittal information for documents passed between the intelligence sections of the British headquarters.⁴⁰⁹ Other items outlined the relationship between intelligence and other branches, such as artillery and aviation. Major C. F. Thompson brought back information from the British I Corps on counter-battery efforts, the line of communications between intelligence sections and operational units, a sample summary of intelligence, and a document outlining the work of Branch Intelligence officers in the corps.⁴¹⁰ Lieutenant Biddle submitted a report on prisoner and document practices in the British General Headquarters and a summary sheet for recording addresses taken from captured prisoners.⁴¹¹ Officers who attended the British Intelligence School at Harrow-on-the-Hill, England brought back lecture notes on artillery intelligence; the duties of artillery reconnaissance officers; and notes on the duties of intelligence officers, postal censorship, and enemy indicators. These items, together with a diagram of communications between British units prior to an attack and an example format for a British battalion daily intelligence report, found their way to the G-2 section, and

⁴⁰⁹ Several different forms of document routing slips are found under the "Observations at British GHQ" booklet in the Arthur L. Conger Papers, File Conger Arthur L. LTC WWI 1798, Arthur L. Conger Papers, AEF General Headquarters, World War I Veterans Survey Above Division, USAMHI;

⁴¹⁰ Thompson later became the Deputy G-2 of First Army and took over as G-2 of Second Army upon its creation. Branch Intelligence officers in the BEF were intelligence officers assigned to the Royal Flying Corps to collect, analyze, and disseminate intelligence obtained by aviation units for use by aviation units, artillery units and intelligence sections. Heavy Artillery I Corps, "Counter-Battery Report," 4 Feb 1918 to 5 Feb 1918, Arthur L. Conger Papers, USAMHI; Chart, "Battle O.P.s and Communications," Arthur L. Conger Papers, USAMHI; Chart, "To Show Stream of Intelligence up and Down (Corps Heavy Artillery Divisions)," Arthur L. Conger Papers, USAMHI; Chart, "Channels through which air photographs are ordered and distributed," Arthur L. Conger Papers, USAMHI; Chart, "Corps G.S. (Intelligence) in Battle," Arthur L. Conger Papers, USAMHI; "I Corps Fortnightly Summary of Intelligence – 1st to 15th February 1918," Arthur L. Conger Papers, USAMHI; Branch Intelligence Section First Army RFC, "Daily Summary 21/2/18," Arthur L. Conger Papers, USAMHI.

⁴¹¹ "Summary of Addresses found in Captured Documents," Arthur L. Conger Papers, USAMHI; Biddle, "Report on the Collection, Analysis, and Distribution of German Documents Captured at the Front," Arthur L. Conger Papers, USAMHI.

eventually to the AEF Army Intelligence School.⁴¹² Another officer conducted an inspection of the British Fifth Army in March 1918. He brought back a table of organization for the Fifth Army intelligence section. Major Daniel M. Henry observed the work of the Intelligence Sections of the Royal Flying Corps in February 1918, and provided a report of his findings.⁴¹³

Nolan continued to send officers to the French as well. In February 1918, Major Kerr T. Riggs went to the French First Army. Nolan gave Riggs three objectives: 1) establish liaison with the officers of the French 2nd Bureau, 2) study the French methods, and 3) obtain as much information as possible on the front opposite the French First army. Major R. H. Williams traveled to the Sixth Army and XI Corps to observe their intelligence sections. Major R. H. Williams brought back a translated version of the instructions given by the French general headquarters on the use of maps and special plans. He also brought a copy of the French general headquarters intelligence section description of the organization of the sub-sections, list of personnel, and duties for each position. Williams drew a coordination and liaison chart for the intelligence section of the French general headquarters as well. He brought back a sample intelligence report dated 13 January 1918. He brought back instructions on the operations of corps and

⁴¹² "Artillery Intelligence: Its Value, and the work of Artillery Intelligence Officers," précis of lecture, 29 June 1918, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Memorandum defining the duties of Artillery Reconnaissance Officers in Corps, Armies and Divisions," unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Notes on Duties of Divisional Intelligence Officers" unnamed file, box 1740 AIS Miscellaneous Data, RG120, NACP; Chart, "Main Communication Centres Before an Offensive," undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; lecture notes "The Postal Censorship," 21 May, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; lecture notes "Points to Look Out For In The Study of Enemy Formations," The Intelligence School Kingsley House Harrow-on-the-Hill, undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Battalion Daily Report," undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP.

⁴¹³Letter to Nolan from Tyler, 7 March 1918, Arthur L. Conger Papers, USAMHI.

division intelligence sections produced by the French Fifth Army. Williams also provided a report of the activities he observed, although he did not make any recommendations or comments on the effectiveness of the French practices.⁴¹⁴

Captain James R. Sloane, First Lieutenant Colman D. Frank, Second Lieutenant Arthur A. Zimmerman, and Lieutenant McKay all inspected French intelligence sections at Paris and Eighth Army, examining in particular the interrogation of prisoners and exploitation of documents. They also brought back translations of instructions for the use of maps; general headquarters intelligence section organization, personnel, and duties of the personnel; liaison charts; sample intelligence reports; and instruction for intelligence sections at corps and division.⁴¹⁵

⁴¹⁴R. H. Williams, "Memorandum with reference to my visit to the 2nd Bureau, 6th French Army Headquarters, and to the 2nd Bureau, 11th Corps, 6th French Army," Arthur L. Conger Papers, USAMHI; "Notice about maps and special plans to be drawn by the armies, 10 August 1917, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Repartition des Travaux," December 1917, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Liaison 2nd Bureau," 12 January 1918, Arthur L. Conger Papers, USAMHI; "Compte Rendu de Renseignements No. 1305, 13 January 1918, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Instructions on the Functions of the Corps Intelligence Service," Fifth Army Staff 2nd Bureau, 15 January 1917, Arthur L. Conger Papers, USAMHI; "Instructions on the Intelligence Service in the Divisions," Fifth Army Staff 2nd Bureau, 16 January 1917, Arthur L. Conger Papers, USAMHI.

⁴¹⁵ R. H. Williams, "Memorandum with reference to my visit to the 2nd Bureau, 6th French Army Headquarters, and to the 2nd Bureau, 11th Corps, 6th French Army," Arthur L. Conger Papers, USAMHI; Memorandum from Major Kerr T. Riggs to Chief Intelligence A, Subject: Memorandum Report of visit to Headquarters 1st French Army, 14 February 1918, Arthur L. Conger Papers, USAMHI, 1; A handwritten note written by Conger mentions McKay as the author of a report on the use of *soldbucher* as intelligence sources, report from Intelligence Section A-2, "Subject: Report on a mission to the French Second Bureau. *Soldbucher*," 24 February 1918, Arthur L. Conger Papers, USAMHI; R. H. Williams, "Memorandum with reference to my visit to the 2nd Bureau, 6th French Army Headquarters, and to the 2nd Bureau, 11th Corps, 6th French Army," Arthur L. Conger Papers, USAMHI; "Notice about maps and special plans to be drawn by the armies, 10 August 1917, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Repartition des Travaux," December 1917, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Liaison 2nd Bureau," 12 January 1918, Arthur L. Conger Papers, USAMHI; "Compte Rendu de Renseignements No. 1305, 13 January 1918, GHQ of the North and Northeast Armies, Arthur L. Conger Papers, USAMHI; "Instructions on the Functions of the Corps Intelligence Service," Fifth Army Staff 2nd Bureau, 15 January 1917, Arthur L. Conger Papers, USAMHI; "Instructions on the Intelligence Service in the Divisions," Fifth Army Staff 2nd Bureau, 16 January 1917, Arthur L. Conger Papers, USAMHI.

The allies were generally very receptive to these visits by the Americans, as exhibited by the amount of information they shared. Typically, the American officers brought with them a letter of reference from the AEF G-2 section and a corresponding letter from the allied mission to present to the chief of the intelligence section they travelled to. Most U.S. officers commented on the great willingness of allied officers to help. Captain Sloane quoted comments of the French Eighth Army intelligence chief, Major Hubert, in his report:

We are glad to show you and tell you all we know about the military art. You will no doubt be able to learn a great deal from us, as we have had such a long experience in the organization of a large army.⁴¹⁶

The French may have been condescending, but the Americans did not neglect to take whatever they could use in the AEF.

Codes and Ciphers

The development of an AEF code book is one illustration of assistance the G-2 section received from the allies for an extended period from 1917 through 1918. During visits with the French and British GHQs in June-July 1917, Nolan and the other senior officers noted codes and ciphers had become far more important and developed because of the use of wireless. Breaking the enemy's codes and ciphers while protecting one's

⁴¹⁶ James R. Sloane, "Report on Examination of German Prisoners at French VIII Army Headquarters and Organization of 2nd Bureau Service in VIII Army, XV Army Corps and Divisional Infantry, 123rd Division, 6 March 1918, Arthur L. Conger Papers, USAMHI, 1.

own was of paramount importance; as many as two-thirds of identifications of enemy divisions on the front came from decoded wireless messages. The British frankly discussed this, the French more reservedly, since they were concerned with revealing to the Germans how much they were reading German codes.⁴¹⁷

Nolan later described Germans reading Russian wireless codes the first year of World War I. He compared American knowledge of codes and ciphers in 1917 to the Russians in 1914 to illustrate how far behind the AEF was when the Americans entered the war.⁴¹⁸ In June 1917, Nolan could only find three officers in the army who had specialized to some extent in this field: Colonel Hitt, Major Moorman, and Major Mauborge. Nolan was able to get Major Moorman into the G-2 to be head of the Code and Cipher Section, and the AEF headquarters cabled the War Department to have a signal company formed to contain wireless experts to man interception stations along the front line.⁴¹⁹

Promising young officers went to the British and French GHQs to be trained in breaking codes. After training and seven months of work, these officers produced a code book for the AEF. When Nolan asked the British and French to look at it, the allies said the Germans would easily break the code and recommended not employing it. With the assistance of the French and British, the AEF tried again, and eventually produced a better code book for implementation.⁴²⁰

⁴¹⁷ Nolan, "Military Intelligence in the AEF," 3.

⁴¹⁸ Nolan, "Military Intelligence in the AEF," 3-4.

⁴¹⁹ Nolan, "Military Intelligence in the AEF," 4.

⁴²⁰ Nolan, "Military Intelligence in the AEF," 5.

A Shift in Emphasis

While the development of an AEF code book demonstrates the sustained effort by Nolan's subordinates to receive assistance from the allies, changing conditions on the western front contributed to a move away from personal inspections by G-2 officers to the allied intelligence sections. The start of the German offensives in March 1918 reduced the ability of the allied armies to receive American visitors. In addition, as American troops entered the front lines, the AEF G-2 section found it had less and less time to sponsor sending officers away from the headquarters. Until the first corps and army headquarters stood up to take charge of planning and directing operations, the AEF G-2 had to supply most of the intelligence for units as they entered the front lines. Even after the First Army headquarters intelligence section and corps intelligence sections began operations, the AEF headquarters needed to coordinate their activities, compile and disseminate the reports received from the front lines to the British and French armies, and assist the subordinate headquarters in planning operations.⁴²¹ Of course, the AEF G-2 section also lost personnel to man the new corps and army intelligence sections. The result was a dramatic decrease in the number of inspections to the allied intelligence sections.

During the first half of 1918, Nolan sent officers to allied intelligence schools. Nolan's dual purpose was to give these officers training for when they took over intelligence positions in the divisions and corps as well as to obtain information about how to run an intelligence school. The opening of the Army Intelligence School (AIS) in

⁴²¹ "General Nolan's Dictation of March 2, 1935: Echelons of Intelligence from the Front Line Back to GHQ," File Dictations ca 1935 on World War I #1-21, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, 18-19.

July 1918, and the creation of the American First Army would spell the virtual end of inspections to the allied intelligence sections by U.S. army officers. The AEF G-2s lack of time to conduct inspections of the allied intelligence sections meant most of the responsibility for gathering information on training intelligence officers shifted from the AEF G-2 to the AIS. From the first idea of creating an American intelligence school to the day the school closed its doors, American officers continued to learn from the allies.

Chapter 7: The Army Intelligence School

Colonel Nolan oversaw the publication of intelligence regulations and development of intelligence organizations. Within the AEF G-2 section, he sponsored officers to the allied intelligence sections to personally learn how to perform intelligence duties and bring back more information on their methods and organization for the rest of the section to integrate into their own practices. Outside the General Headquarters, field grade officers received some intelligence training in the Army Staff College; company grade officers at the School of the Line received orientation courses on intelligence. AEF G-2 officers taught some of these classes. Enlisted personnel who would be scouts, observers, or snipers received training from British or French instructors, their own officers, or the II Corps cadre in the Infantry Weapons School. At a glance, AEF intelligence appeared to be progressing well.

Intelligence Training Challenges

Despite these efforts, Colonel Nolan was not completely satisfied with the training of intelligence personnel, especially for those who were learning “on-the-job.” Within the AEF G-2 section, the most useful time for learning about intelligence was not working in one's particular job, but during meal times. The mess provided the only significant time for officers from the various sections to interact with one another, ask

questions, exchange ideas, and broaden out their base of intelligence knowledge.

Officers worked in very specialized areas at the GHQ level, which prevented them from gaining a broader perspective of the work of intelligence as a whole.⁴²²

Another challenge with intelligence training was the lack of uniformity.

Lieutenant Colonel Marlborough Churchill, who left the AEF G-2 section to return to the United States and take over for Colonel Ralph Van Deman as head of the War Department General Staff intelligence section in the summer of 1918, noted this challenge in an August 1918 memo. He assessed the American divisions in Europe through the spring of 1918 as deficient in both intelligence organization and training, identifying five reasons for the inefficiency: 1) lack of appreciation by the battalion and regimental commanders for the value of combat intelligence; 2) failure to understand the value of intelligence in combat and confusion of combat intelligence with espionage and counterespionage; 3) absence during the initial months of war in 1917 of sufficient printed material concerning intelligence to distribute to the units; 4) lack of clarity in the tables of organization concerning the composition of intelligence sections from battalion to division level along with personnel shortages in these groups; 5) absence of a definite guide for the training of the intelligence sections, resulting in different training methods, operations, and quality between divisions or even within divisions. The first divisions to arrive in Europe had adopted intelligence organization and methods of the British or French units training them. While they converted to organization and functions outlined in the American regulations later, Churchill felt their employment at the front in the

⁴²²“General Nolan’s Dictation of March 2, 1935: Echelons of Intelligence from the Front Line Back to GHQ,” File Dictations ca 1935 on World War I #1-21, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, 9.

winter of 1917 and spring of 1918 limited their ability to train under American regulations.⁴²³ The training weaknesses for intelligence personnel were particularly evident with the more technical duties of intelligence personnel, which included examination of prisoners of war, document exploitation, and aviation intelligence. For personnel in the first several divisions lucky enough to attend an American center, the schools did not provide detailed training in foundational subjects, such as knowledge of the German army organization and methods, which intelligence officers needed.

Beginning in March 1918, Nolan and AEF intelligence personnel planned for, prepared, and operated an intelligence school. Each step along the way, they obtained assistance from the allies. All the information on intelligence organizations and methods that had been gathered previously from the French and British was still available. Nolan sent officers to the British intelligence school at Harrow-in-the-Hill, near London, England, to gather information about course curriculum and pedagogy. He brought in instructors from the allies to teach portions of the course. Instructors asked for materials through the allied military missions and asked to travel to the front lines and allied schools in order to obtain additional information helpful to the school. As a result of these efforts, as well as efforts to integrate the experiences of American units at the front, the Army Intelligence School became the focal point for intelligence methodology in the AEF. The AIS illustrates the extensive effort made by AEF intelligence personnel to gather knowledge from the allies and also shows how the school served as a zone of

⁴²³ Memorandum from Marlborough Churchill for the Chief of Staff, General Staff, War Department, Subject: Training of Positive Intelligence Personnel, August 1918, File Lectures, AIS Miscellaneous Data, RG120, NACP, 1-2 .

interaction among allied and American experiences when instructors developed their programs of instruction.

By the time Churchill's memorandum circulated through the U.S., the AIS had already been in operation for a month. The question of an intelligence school had been not so much whether, but when. Nolan had been thinking about establishing a school at least since December 1917. Captain Hubbard had recommended establishing a training system for intelligence personnel after his visit to the British and Canadians at that time. Hubbard felt the little training officers received in the United States overemphasized espionage and counter-espionage (I-B) and did not cover other significant points at all. This gave officers a mistaken impression of intelligence work and led them to “use every influence possible to get out of Intelligence work and be with troops,” thus leaving only the “dregs.” He felt the intelligence sections should be developing well from the close liaison established with the British and French, but instead was handicapped by a lack of motivated, competent personnel.⁴²⁴

The English officers with whom Hubbard spoke pressed for the creation of an intelligence school in Europe and America because it was “absolutely impossible” to train officers consistently while they are working at a headquarters. Up to that point, only a few U.S. divisions had arrived, so the AEF G-2 had had time to send officers to the allies and build up its own knowledge. The number of divisions in Europe would soon rapidly escalate, and to support the independently operating army Pershing wanted

⁴²⁴S.T. Hubbard, Jr., “Training and Obtaining of Intelligence Officers,” Memorandum from Captain Hubbard for Colonel Nolan, 29 December 1917, File Conger, Arthur L. LTC WWI 1798, Arthur L. Conger Papers, AEF General headquarters, World War I Veterans Survey Above Division, USAMHI, 1-2.

the AEF would need to create corps and army headquarters. Hubbard recommended starting an intelligence school for officers in Europe and in the United States to handle the increased requirement for training. He also recommended sending an officer to London to report on the British intelligence school there. Finally, he recommended sending an officer back to the United States to start an intelligence school in Washington, D.C. as well. Postponing the creation of a school would only make the challenge of training more difficult.⁴²⁵

Preparing an Intelligence School

In early 1918, as Nolan was considering creating an intelligence school, he could draw on a number of sources for assistance including Lieutenant Colonel Conger, who had been an instructor at the Leavenworth schools. The Training Section (G-5) of the AEG GHQ had already established a number of schools to train personnel arriving from the U.S. Nolan could find any additional expertise to run a school from an administrative and logistical standpoint by working with the Commandant of Schools. What he really needed was an idea of what the curriculum for the school would be, as well as personnel sufficiently competent in intelligence to teach at the school. As with the development of AEF intelligence regulations and organization, Nolan turned to the allies for assistance. Between March 1918 and the end of the war, Nolan sent officers to the British intelligence school, selected the school's instructors, brought in allied instructors to assist,

⁴²⁵S.T. Hubbard, Jr., "Training and Obtaining of Intelligence Officers," Arthur L. Conger Papers, 2.

and sent AIS instructors out to teach and to gain more information from the allies and American units.

Most of the information the Americans previously gathered would be useful for the school. From one of his trips to the British sector, Conger brought back a published lecture on intelligence produced by the British Second Army dated 24 July 1916. The lecture contained four and a half pages of text organized into seven parts: introduction, organization of the German army, uniform, necessity for accuracy and speed in forwarding intelligence, necessity of continuous observation in trench warfare, gaining information by raids, and counter-espionage. The lecture was designed not specifically for the intelligence personnel at regimental level and below, but for all officers and non-commissioned officers in a regiment. The advice in the lecture was therefore practical but somewhat general. For example, the lecture advises the reader, “do not use fancy names, such as ‘whiz-bangs.’ The trouble is not that we do not know what a whiz-bang is, but that different fancy names are used to describe the same article in different parts of the line.”⁴²⁶ Another section of the lecture described how to determine the identification of a unit based on uniforms and equipment, but also recommended sending all identifiable objects to the nearest intelligence section for identification and forwarding to higher headquarters. Although the descriptions of the German army organization were somewhat outdated by the time Conger obtained the lecture, the advice on observation in the trenches, conducting raids, and reporting was all very pertinent to the training of the American forces.

⁴²⁶ “Lecture on Intelligence: for Regimental Officers and Non-commissioned Officers,” 24 July 1916, General Staff Second Army, File Arthur L. LTC WWI 1798, Arthur L. Conger Papers, USAMHI, 3.

The information on intelligence methods the AEF had gained so far was useful, but even more important would be an intelligence school curriculum. Nolan accordingly sent Lieutenant John H. Marsching to England to participate in the British intelligence course starting in March 1918. Marsching reported favorably on the school and sent back copies of the schedule of instruction to Lieutenant Colonel Conger before he even finished the school. In May, 1918, Nolan sent six more officers to the next class, following up with nine more to attend the branch intelligence instruction during the second half of the course. Several of the officers provided reports about the school to Nolan, including First Lieutenant Donald H. McGibney, who later instructed at the American Army Intelligence School, and Lieutenant Bryan. The lectures, sample exams, and other materials the officers brought back were also helpful. Items from the British Intelligence School that found their way to the AIS included lecture notes on artillery intelligence, the duties of artillery reconnaissance officers, notes on the duties of division intelligence officers, lecture notes on postal censorship, and notes on the enemy indicators to look for as in intelligence officer. The AIS files also included a diagram of communications between British units prior to an attack and an example format for a British battalion daily intelligence report.⁴²⁷

⁴²⁷ "Artillery Intelligence: Its Value, and the work of Artillery Intelligence Officers," précis of lecture, 29 June 1918, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Memorandum defining the duties of Artillery Reconnaissance Officers in Corps, Armies and Divisions," unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Notes on Duties of Divisional Intelligence Officers" unnamed file, box 1740 AIS Miscellaneous Data, RG120, NACP; Chart, "Main Communication Centres Before an Offensive," undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; lecture notes "The Postal Censorship," 21 May, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; lecture notes "Points to Look Out For In The Study of Enemy Formations," The Intelligence School Kingsley House Harrow-on-the-Hill, undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; "Battalion Daily Report," undated, unnamed file, box 1740, AIS Miscellaneous Data, RG120, NACP; Memo from Walter S. Bryan, 2nd Lieut., Inf., USR to A C. of S. (G-2), Subject: Report on the course given at the British School of

McGibney provided a relatively detailed description of the British intelligence course. There were only three permanent instructors, but officers came from the War Office and the field in France to give lectures on subjects. About twenty-five British officers attended each course, which lasted two months. The course consisted of two parts. The first contained a general discussion of intelligence functions, the relationship between intelligence sections, and methods of cooperation between intelligence and key branches like artillery and signal corps. Instructors gave daily lectures on the organization of the British and German armies, comparing the two, and brought in guest lecturers for other armies of the central powers. They included the use of airplane photographs and map-making from aerial photos. The course emphasized practical work on how to make maps, plot information from photos onto maps, and record and file the information properly. Guest instructors from the War Office described the British Secret Service, postal censorship, and war trade intelligence. McGibney noted a training day included several different topics rather than focusing a whole day on one topic.⁴²⁸

The second half of the course split up the students into two major groups: one for officers to be assigned to I(a) sections and one for students assigned to I(b) sections (for special training in counter-espionage and other areas). The I(b) students went to London to conduct specialized training there, while I(a) students stayed at Harrow and further subdivided into specialized groups for unit intelligence officers, branch intelligence officers, and interrogators. The most sustained focus in the second half of the course was

Intelligence, May 14 – July 6, 1918, at Harrow-on-the-Hill, England, 13 July 1918, Unnamed File Box 1740, AIS Miscellaneous Data, RG120, NACP, 1-2.

⁴²⁸“Report on Course of Study at the British Intelligence School, Harrow on the Hill, May 14 – July 5, 1918,” undated, unnamed file Box 1740, AIS Miscellaneous Data, RG120, NACP, 1.

on the German army. This provided all the officers with a base of knowledge which they could apply within their specialty. The students received lectures and conducted practical exercises tracing the war records of German units, casualties, and recruits. They learned about artillery guns, tactics, and shells, and conducted three days of practical work on interrogations by questioning wounded German prisoners at a nearby hospital. Guest lecturers from France traveled to England to lecture on intelligence at their level (from BEF general staff down to brigade level). After the lectures, students wrote intelligence summaries, plotted troop positions on maps, and conducted other practical work. Branch intelligence officers focused on airplane photographs and liaison between the Royal Flying Corps and the intelligence services.⁴²⁹

McGibney and the other officers who attended the school evaluated the strengths of the course and made recommendations for any future American intelligence school. All recommended dropping the extensive discussion of British army organization. McGibney emphasized the importance of practical work at the school. “No amount of lecturing could take the place of actually sitting at a table and questioning the German prisoners that were brought there.” This made the interrogation section most helpful. While the course was geared toward officers who would take positions on a division staff, McGibney felt a graduate could take any position from brigade level (regimental level in the AEF) up to the GHQ. Lieutenant Bryan noted the need for language proficiency in French or German or both for intelligence training, as only officers

⁴²⁹ “Report on Course of Study at the British Intelligence School, Harrow on the Hill, May 14 – July 5, 1918,” undated, unnamed file Box 1740, AIS Miscellaneous Data, RG120, NACP, 2; Memo from Walter S. Bryan, 2nd Lieut., Inf., USR to A C. of S. (G-2), Subject: Report on the course given at the British School of Intelligence, May 14 – July 6, 1918, at Harrow-on-the-Hill, England, 13 July 1918, Unnamed File Box 1740, AIS Miscellaneous Data, RG120, NACP, 1-2.

sufficiently proficient in German could perform the prisoner, documents, and war material training. In addition, he recommended increasing the amount of time studying German military terms and reading and writing military German.⁴³⁰

All of this information was very helpful to Nolan. He had sent a memorandum to the division commanders in June, 1918, asking them to identify an officer or enlisted soldier to attend an intelligence school. On 13 July, Nolan forwarded his formal recommendation for the creation of an intelligence school to the AEF Chief of Staff. The course targeted skills required of junior intelligence officers: detailed knowledge of the German army, division and regimental intelligence procedures, interrogation of prisoners, and exploitation of captured documents.⁴³¹ For the second and subsequent courses, the instructors added branch intelligence training to the curriculum. Nolan proposed a staff of five Americans, one British, and one French instructor to teach a course for fifty students (which was a comparable student : teacher ratio to the British intelligence course). The Chief of Staff allowed seventeen officers and four enlisted men for the school table of organization, and the school opened with ten officers present, though it did not reach full instructor strength until after the armistice. Although he wanted as short a course as possible, Nolan felt it would probably require eight weeks (similar in length to the British intelligence school). He laid out a tentative outline for the subjects

⁴³⁰ "Report on Course of Study at the British Intelligence School, Harrow on the Hill, May 14 – July 5, 1918," undated, unnamed file Box 1740, AIS Miscellaneous Data, RG120, NACP, 2; Memo from Walter S. Bryan, 2nd Lieut., Inf., USR to A C. of S. (G-2), Subject: Report on the course given at the British School of Intelligence, May 14 – July 6, 1918, at Harrow-on-the-Hill, England, 13 July 1918, Unnamed File Box 1740, AIS Miscellaneous Data, RG120, NACP, 1-2; "Course for Intelligence Officers at Harrow England. May 14th to July 7th 1918" GHQ American E.F. July 12th 1918, Unnamed File Box 1740, AIS Miscellaneous Data, RG120, NACP.

⁴³¹ Marsching, J. H. Major, "History," 3, 11.

to be covered in the course and divided the subjects in lectures, conferences, and practical work. He received approval, and by 21 July had Major Thom Catron and Lieutenant Marsching at Langres, France, arranging for the logistical needs of the school. The course started on 25 July.⁴³²

American Instructors

As Nolan had been finalizing the preparations for opening the school, he turned to his assistant, Lieutenant Colonel Conger, to provide some recommendations for instructors. As a former instructor at Leavenworth, Conger knew many, if not most, of the graduates of the Staff Colleges, and had ample ability to judge the strengths and weaknesses of the students. Nolan felt this knowledge was very valuable, especially since he had not been through the Army Staff College himself.⁴³³ Although few of the potential AIS instructors would have gone through the staff college at Fort Leavenworth, Nolan trusted Conger's ability to select appropriate personnel for the AIS and other intelligence positions. Nolan's own philosophy of officer selection was to find the best officer available, whether the man currently worked in intelligence or not. At the Army

⁴³² Memorandum from Colonel D.E. Nolan, A. C. of S., G-2 for the Chief of Staff, Subject: Intelligence School at Langres, 13 July 1918, File History of School, AIS Miscellaneous Data, RG120, NACP; Marsching, J. H. Major, "History," 1,3,11; Telegram from Nolan ACS G-2, to Commanding General ____ Division, 22 June 1918, File 30 Prospective Students, AIS Miscellaneous Data, RG120, NACP; Extract from Table of Organization for Provisional Replacement Unit Type – O (Personnel for Army Schools, Langres), undated, File 45 Table of Organization, Army Intelligence School Miscellaneous Data, Army School of the Line, G-5 Schools, GHQ AEF, Records of the AEF, 1917-1923, Record Group 120 (RG120), National Archives at College Park (NACP), College Park, Maryland.

⁴³³ a handwritten note in Nolan's First Draft of Chapter on Military Information Division, File Second Draft of His Proposed History of World War I, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 1, 3-4; Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881-1918*, (Westport: Greenwood Press, 1978), 136.

Staff College in Langres, France, officers typically worked in the section they had come from in their division: administration (G-1), operations, (G-3), logistics (G-2), or even intelligence (G-2). Yet when Nolan selected officers to fill vacancies in the AEF G-2 section, he chose officers who graduated highest from the Army General Staff College regardless of their previous duties. He “invariably took the men who were standing at the head of their class, the fellows who seemed...to be the most brainy fellows.” In Nolan's view, an officer who would was a great G-3 could probably be a great G-2.⁴³⁴

Nolan could afford to do this initially for the G-2 section where he spent time training the newly arrived officers--this was in keeping with his philosophy of using the G-2 section as the proving ground for officers who wanted to serve in intelligence positions at lower levels. Nolan felt that no officer should be indispensable to the operations of any AEF G-2 sub-section, and he exemplified this philosophy by regularly taking personnel from the sub-sections and placing them into subordinate unit intelligence positions once they proved their ability.⁴³⁵ The officers who were to instruct at the AIS, on the other hand, already had to be experts in the field. Conger provided Nolan with the names of six officers whom he recommended as instructors. Conger recommended Major Thom Catron (a Leavenworth graduate) as the senior instructor and director for the school. He also recommended Captain Hubbard for instruction on the German army; Lieutenant Basset to assist the personnel already at Langres in teaching interpretation of airplane photographs and preparation of maps; Lieutenant Donald H. McGibney for teaching

⁴³⁴ “General Nolan’s Dictation March 8, 1935,” No. 9, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 12-13.

⁴³⁵ “General Nolan’s Dictation of March 2, 1935,” No. 7, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 4-8, 10.

general subjects; Lieutenant John H. Marsching to assist with German prisoners and documents; and Lieutenant Frank E. Mason, from the 9th Infantry Regiment, Second Division, to take the course and also teach regimental intelligence. Conger suggested that he and the other intelligence section chiefs, as well as other officers on duty at AEF headquarters, handle lectures on any other special subjects.⁴³⁶

Nolan accepted Conger's recommendations. The only person recommended by Conger whom Nolan did not select was Lieutenant Basset, who was an intelligence officer in the III Corps Staff. Most likely Nolan did not take Basset because Major Wheat and another officer were already available at Langres to teach the same subject. They were part of the Engineering School's Topography Section which was transferred to the Army Intelligence School in July for the start of the first intelligence course.⁴³⁷ Major Thom Catron, the director, came from the AEF G-2 section. He later departed the AIS and was assigned as an assistant G-2 for the First Army. Captain Hubbard also came from the AEF G-2 section, in the G-2-A-1 Military Information Division. He had contracted influenza and been sick away from work for a while. Conger's recommendation gave Hubbard a chance to recover as well as take a new position. As the head of the section in the AEF G-2 which primarily worked on the enemy "order of battle," he was eminently qualified to instruct on the subject at the AIS.

Lieutenant John H. Marsching and Lieutenant Frank E. Mason were both associated with the Second Division. Mason was in the 9th Infantry Regiment.

⁴³⁶ Memorandum for A. C. of S. G-2, from LTC A.L. Conger, GS, Subject: Personnel for Intelligence School, Langres, 13 July 1918, File History of School, AIS Miscellaneous Data, RG120, NACP.

⁴³⁷ Major J. H. Marsching, "History," 9.

Marsching moved temporarily from the AEF G-2 to the Second Division at the request of Lieutenant Colonel Conger on 10 June 1918. Conger had been ordered from the AEF G-2 to the Second Division on 7 June for temporary duty as the Division Intelligence Officer. Marsching, Mason, and Conger all took part in the Second Division operations around Vaux and Belleau Wood. Conger asked for Marsching to be sent down because no other intelligence officers in the division possessed a working knowledge of German. While at the Second Division, Lieutenant Marsching conducted nearly all of the interrogations of German prisoners. This made him the most experienced and qualified officer in the army to instruct the prisoner interrogation and document examination portion of the intelligence course. Lieutenant Mason, as the Regimental Intelligence Officer for the 9th Regiment, assisted Conger in the preparation of intelligence materials for the 3rd Brigade's attack on the town of Vaux. Mason also participated in the division's operations near Soissons. Mason's battle experience with the Second Division was very valuable since only the First and Second Divisions had conducted division level attacks. Mason was a natural selection as instructor for regimental and divisional intelligence at the AIS. Conger's personal knowledge of Marsching and Mason certainly helped as well.⁴³⁸

⁴³⁸ Memorandum from Conger to Commanding General Second Division, Subject: Report of 2nd Division Intelligence, "Pas Fini" Sector, 8 July 1918, File Conger, Arthur L. LTC WWI 1798, Arthur L. Conger Papers, AEF General Headquarters, World War I Veterans Survey Above Division, USAMHI, 1, 5-12; 1st Indorsement Director, AIS to A. C. of S. G-2, GHQ, AEF, 10 August 1918, File Interrogation of Prisoners, Students, AIS Miscellaneous Data, RG120, NACP, 3; John S. D. Eisenhower, *Yanks*, 149-150; Byron Farwell, *Over There: The United States and the Great War, 1917-1918*, (New York: W.W. Norton and Co, 1999), 173. Mason's presence as an RIO has to be inferred as he is not specifically mentioned by Conger or in Farwell or Eisenhower's work. Conger had just returned from duty in the Second Division after the operations at Vaux and Belleau Wood when he provided his instructor recommendations to Nolan, he mentioned the RIOs from the 9th and 23rd Infantry Regiments as performing superlatively during these operations, and Lieutenant Mason was from the 9th Regiment. Therefore, I conclude Mason was the RIO for

Major John. H. Wheat and Second Lieutenant C. H. Davey were already at Langres in the Topographic Section of the Army Engineer School. Major Wheat had been the instructor for the Topographic section since its inception in January 1918. He was the most qualified engineer officer to instruct aerial photography in the army at the time of the creation of the AIS. Both Wheat and Davey essentially continued to teach the same subjects for both the Engineer school and the Army Intelligence School.⁴³⁹

Lieutenant Donald H. McGibney had been one of nine officers sent by the G-2 section to the British Intelligence School to take the course and report back on its particulars to Nolan.⁴⁴⁰ His experience at the British school would be valuable in helping the instructors set up the course outline and plan the actual classes. After he completed the British Intelligence School, McGibney briefly returned to the 32nd Division before being ordered to the AIS.⁴⁴¹

The first AIS course did not contain a section on Branch Intelligence. For the start of the second course, Second Lieutenant Prentiss M. Terry was ordered from the 91st Aero Squadron to the AIS to serve as an instructor. The 91st Aero Squadron was one of the first observation squadrons to begin operations on the front lines, arriving on 24 May

the 9th Regiment, and his performance caused Conger to recommend him as a dual student/instructor for the AIS.

⁴³⁹ Major John H. Marsching, "History," 9.

⁴⁴⁰ It is possible that other officers reported verbally or in writing on their experiences at the British Intelligence School, but only three reports, including McGibney's are in the AIS records.

⁴⁴¹ Memorandum from Colonel D.E. Nolan, A. C. of S., G-2 for the Chief of Staff, Subject: Intelligence School at Langres, 13 July 1918, File History of School, AIS Miscellaneous Data, RG120, NACP; GHQ AEF Special Orders No. 198, Extract, Paragraph 33, 17 July 1918, File Students Orders, AIS Miscellaneous Data, RG120, NACP.

1918. The squadron had been in combat for nearly four months when Terry left to instruct the Branch Intelligence section of the curriculum.⁴⁴²

In addition to the “permanent” instructors at the AIS, guest lecturers provided instruction. AEF headquarters staff officers provided a series of briefings to the AIS students. Speakers included Colonel Conger, Colonel W. C. Johnson, Colonel Van Deman, Colonel Cox, Colonel Moreno, Colonel Moorman, and Colonel Alexander, all members of the AEF G-2 section. Captain H. D. Newson, from the Branch Intelligence (Aviation) Section (G-2A7) of the AEF GHQ, also provided guest lecture instruction. Before the start of the first AIS course, he proposed a series of classes for branch intelligence officers to be included in the AIS curriculum. Newson recommended seven hours of lectures and conferences on topics such as the organization of the German air service, the relation of branch intelligence to the Air Service, and the principles of reconnaissance and relative importance of information obtained. To this he added eight practical exercises and two written examinations at a half day each.⁴⁴³ Although his recommendation for the content of a branch intelligence section of the AIS curriculum was not immediately implemented, Captain Newson imparted much of the information to the first course through his guest lectures. Lieutenant Terry continued the instruction based on Newson’s schedule when he arrived to teach in the second course.

⁴⁴²GHQ AEF Special Orders No. 264 Extract, Paragraph 73, File 21 Special Orders, AIS Miscellaneous Data, RG120, NACP; *Daughters of the American Revolution Magazine*, “Aircraft Insignia, Aero Squadrons, and Aircraft,” Research Materials/Source Documents, AFEHRI File 19-2, Air Force Enlisted Heritage Research Institute, web site: <http://afehri.maxwell.af.mil/info/research/number.htm>.

⁴⁴³ Memo from Captain H.D. Newson for Colonel Conger, 13 July 1918, File Miscellaneous Data, AIS Miscellaneous Data, RG120, NACP; Memo from Captain H.D. Newson for Colonel Conger on additional practical work, 13 July 1918, File Miscellaneous Data, AIS Miscellaneous Data, RG120, NACP.

Most guest instructors were in the AEF G-2 section, but not all. Colonel Viner provided a discussion of tanks and tank tactics. Major Evans discussed the use of machine guns. Captain McCormack provided instruction on trench mortars. They came from the operations (G-3) or training section (G-5) of the AEF headquarters. Instructors also came from the front to provide their services. Colonel Joseph R. Stilwell, for example, came from IV Corps to provide a lecture on corps level intelligence.⁴⁴⁴

These officers selected to instruct at the AIS had as much or more experience in intelligence as any other officers in the AEF at the time. Only one instructor (McGibney) came directly from the British Intelligence School, but Lieutenant Marching, had attended the March-April course. Unfortunately, the rapid move from Nolan's request to start the school and the first day of the course meant most of the instructors showed up at the school as the students were arriving. There was little time for the instructors or Nolan to digest the information about running an intelligence school from McGibney or the other students. McGibney's physical presence was thus very helpful to the process of developing the school. The work of gathering and organizing allied intelligence information was eased by the availability of printed materials from the libraries of the AEF G-2 and G-3 sections, as well. These libraries contained materials printed by the AEF headquarters and items gathered from the allies in the various inspections conducted by army officers.

⁴⁴⁴ Marsching, John H. Major, "History," 10a; Stilwell's orders to Langres are in GHQ AEF Special Orders No. 202 Extract Paragraph 155, 29 October 1918, File 21 Special Orders, AIS, RG120, NACP.

Allied Instructors

One way to obtain intelligence knowledge more quickly was to have allied experts at the school. Although by this time the AEF generally worked to minimize the number of allied officers teaching in the schools system, Nolan asked for allied assistance with instructors at the school. The British and French chiefs of mission appointed three foreign instructors to positions at the AIS upon request of the AEF G-2. Captain C. F. Atkinson brought to the AIS extensive knowledge of the German army. American officers who had attended the British Intelligence School consistently remarked on how well the British knew and could instruct on German army organization and tactics. Captain C. E. Barraud and Lieutenant F. G. Maurer instructed in the Prisoners and Documents portion of the course. According to the first AIS course director, Major Catron, Lieutenant Marsching, the senior American instructor in prisoners and documents, had conducted over 1,400 interrogations, but Captain Barraud had conducted over 25,000.⁴⁴⁵

The British and French also provided guest lecturers to the Army Intelligence School. Colonel Koechlin-Schwartz, in charge of the French mission to the U.S Army at

⁴⁴⁵ "Report on Course of Study at the British Intelligence School, Harrow on the Hill, May 14 – July 5, 1918," undated, unnamed file Box 1740, AIS Miscellaneous Data, RG120, NACP, 3; Memo from Walter S. Bryan, 2nd Lieut., Inf., USR to A. C. of S. (G-2), Subject: Report on the course given at the British School of Intelligence, May 14 – July 6, 1918, at Harrow-on-the-Hill, England, 13 July 1918, Unnamed File Box 1740, AIS Miscellaneous Data, RG120, NACP, 2; 1st Indorsement Director, AIS to A. C. of S. G-2, GHQ, AEF, 10 August 1918, File Interrogation of Prisoners, Students, AIS Miscellaneous Data, RG120, NACP. At first, these numbers seem improbably high. At one hour per interrogation, conducting interrogations eight hours per day every day, it would take eight years for Captain Barraud to conduct 25,000 interviews. This number likely includes all screening questions given to soldiers that would take only a minute or so, making the listed figure more reasonable.

Langres,⁴⁴⁶ provided an overview lecture on the organization of the German Army to the students at the AIS. He provided guest lectures to several different American schools in Langres, including the Army General Staff College. Other French officers providing instruction included Commandant Hue, Captain Adron, and Lieutenant Morin. British officers Major Michie and Major Glyn provided instruction on battalion scouting, patrolling, and trench raids, as well as the organization and methods of intelligence in the British Army.⁴⁴⁷

Threat Information

According to Major Marsching, the foundation of the AIS instruction was the development of an extensive knowledge of the German army's history, organization, and tactics in each student.⁴⁴⁸ Training the U.S. officers received at the British Intelligence School only emphasized this point. Prewar intelligence focus on the German army, coupled with nearly four years of subsequent conflict created specialists in the allied armies who knew details of every Central Power division and regiment which had spent some portion of time on the western front.⁴⁴⁹ Collecting knowledge on the enemy forces, therefore, was one of the top priorities of the AEF G-2 for operational reasons, and the AIS for instructional reasons.

⁴⁴⁶ letter to Colonel Koechlin-Schwartz, French Mission, Langres, France, from 1LT R.T. Kidde, 11 November 1918, File 17, Miscellaneous, AIS Miscellaneous Data, RG120, NCAP.

⁴⁴⁷ Major John H. Marsching, "History," 10a.

⁴⁴⁸ Major John H. Marsching, "History," 3-4.

⁴⁴⁹ "Report on a Mission to the French Second Bureau. *Soldbucher*," 24 February 1918, Arthur L. Conger Papers, USAMHI, 1.

The Index to German Forces in the Field (Yellow Book), *The German Forces in the Field* (Brown Book), and the *Vocabulary of German Military Terms and Abbreviations* (Green Book), were all British publications the U.S. army adopted for its own use. The British headquarters produced updates for the publications monthly. Whenever enough changes occurred, they produced a completely new edition. The British army was very proactive in identifying new intelligence to keep the books up to date. While training at the British Intelligence School, Lieutenant McGibney noted the interrogation of German prisoners for a portion of the school's training resulted in the students learning of errors in the Brown Book. The British school staff forwarded the corrections to the War Office for update in the next publication. Both the AEF G-2 and the AIS relied on these British publications as the foundation for knowledge of the German army organizations. The AEF G-2 section routinely received the monthly and new edition updates. The AIS staff requested copies of these books for use in the German army classes through the AEF G-2. Eventually the AEF G-2 section just increased its standard request for the publications from the British army to accommodate the requirements of the AIS as well.⁴⁵⁰

In addition to these monthly and yearly publications, the allies produced special publications on certain aspects of the German army. Some of these publications requested by the AIS staff included *Notes on German Fuses*, *Examination of Prisoners (Heavy Artillery)*, and *Notes on German Artillery Material*.⁴⁵¹ Besides these larger book-

⁴⁵⁰ Memorandum from Captain Marsching to A. C. of S. G-2 GHQ, Subject: British Publications, 1 October 1918, File 24 Request for Publications, French-British, AIS Miscellaneous Data, RG120, NACP.

⁴⁵¹ "Report on Course of Study at the British Intelligence School, Harrow on the Hill, May 14 – July 5, 1918," undated, unnamed file Box 1740, AIS Miscellaneous Data, RG120, NACP, 2; memorandum from Director

length publications, the allies produced booklets, bulletins, and summaries of information on changes in central power unit locations, organization, and tactics. The U.S. Headquarters Army Schools produced a summary of intelligence on 12 May 1918 outlining the latest German trench raiding methods used in attacks from 25 March to 20 April 1918. The U.S document was a translation from a bulletin originally produced by the French Second Army, received by the American G-2 section, and translated for distribution to the schools system.⁴⁵²

The Army Intelligence School received many similar reports. Some were specifically requested by the school. Others were forwarded by the AEF G-2 section after they were received through the allied or corresponding U.S military missions. On 9 October 1918, Captain Hubbard sent a request to the AEF G-2 for twelve copies of the British publication SS737 "Translation of a German Document. Instructions and Rules of Guidance for the Conduct of Every German Soldier Who Is Taken Prisoner." Apparently, the AIS received one copy of the document from the AEF G-2, which prompted Hubbard to request more for use in the prisoner interrogation section of the AIS course. This document was very important for training interrogation techniques. It outlined the methods recommended by German commanders for captured German soldiers to use in order to evade answering questions, or at the very least, to avoid compromising the most critical intelligence information. Officers interrogating prisoners

Army Intelligence School to A. C. of S. G-2 GHQ AEF, Subject: G.H.Q. Publications, 5 September 1918, File 24 Request for Publications, French-British, AIS Miscellaneous Data, RG120, NACP; memorandum from Director Army Intelligence School to A. C. of Staff G-2 GHQ AEF, Subject: G.H.Q. Publications, 11 September 1918, File 24 Request for Publications, French-British, AIS Miscellaneous Data, RG120, NACP.
⁴⁵² Headquarters Army Schools, *Attack Tactics of the Enemy in Recent Raids, from French 2nd Army Bulletin* May 8, 12 May 1918, unnamed file, AIS Miscellaneous Data, RG120, NACP, 1-2.

could better interrogate German prisoners by avoiding techniques the German soldiers were warned against.⁴⁵³

Translation and distribution of captured German documents was a common method of producing intelligence. Both the British and French armies regularly reproduced enemy documents for distribution. They shared these documents with each other and with the United States. The AIS faculty collected many of these reports for use in the school. In June 1918, the AEF headquarters distributed a translation of a French general headquarters document titled, "German Methods of Attack." The booklet was a compilation of several different translated German documents and a short commentary on their importance by the French authors.⁴⁵⁴ In October 1917, the AEF headquarters distributed a captured document concerning German planning for the employment of gaps in wire entanglements. The document outlined orders from German headquarters to subordinate units on the methods of planning, executing, recording, and transferring knowledge of gaps in wire entanglements built for the purpose of facilitating rapid movement for offensive action. The AEF publication was a translation of a French document, which was a translation of the original German document.⁴⁵⁵

The AIS faculty eventually devoted a file folder specifically for translated German documents. The folder contained British and French translations of German

⁴⁵³ Memorandum from Hubbard for Captain Tappin, 9 October 1918, File 24 Request For Publications French-British, AIS Miscellaneous Data, RG120, NACP; 335-018 "Translation of a German Document, Instructions and Rules of Guidance for Conduct of Every German Soldiers Who is Taken Prisoner," July 1918, File 24 Request For Publications French-British, AIS Miscellaneous Data, RG120, NACP.

⁴⁵⁴ "German Methods of Attack" No. 1311 GHQ AEF 25 July 1918, File German Methods of Attack, Translation From the French, AIS Miscellaneous Data, RG120, NACP..

⁴⁵⁵ "Chicanes" (Gaps Constructed in Wire Entanglements), Translated from the French translation of a German document (7 July 1917) at Headquarters American Expeditionary Forces, October 1917, File Information Concerning Enemy Translated Documents, AIS Miscellaneous Data, RG120, NACP, 1-4.

documents. Most of the British publications were used as is. Most French translations were translated into English and produced for the Army Schools library. Subjects included battle studies of Gommecourt, the Somme, and Verdun; German evaluations of British raids, methods to ensure secrecy, and conduct of infantry attacks; and new artillery weapons, organization, and tactics.⁴⁵⁶

The lion's share of information requested and collected by the AIS concerned the German army. The faculty did not neglect the Austro-Hungarian army, however. Lieutenant Colonel Conger offered materials on the Austro-Hungarian army to the school either as lecture material, to be mimeographed, or for publication. The AIS obtained a copy of these lecture notes. They were written by the British and included the history of the empire, the organization of different units, and characteristics of the subject peoples of the empire. In November, prior to the armistice, the AIS faculty requested through the AEF G-2 for any printed or illustrated material on Austro-Hungarian uniforms and insignia from the Italian army.⁴⁵⁷

The AIS faculty came to directly possess most of the intelligence knowledge on allied organization and operating procedures, methods for running an intelligence course, and information on enemy forces. What items they did not possess were obtainable through the AEF libraries. The AEF staff sections, including the G-2 and G-3, created and maintained libraries of important documents for reference by the entire staff. The

⁴⁵⁶ Eleven different translated documents are found in the file folder "Information Concerning Enemy Translated Documents," Box 1740, AIS Miscellaneous Data, RG120, NACP. Additional translated documents appear in other AIS file folders.

⁴⁵⁷ "The Organization of the German Army: Lectures Delivered to French Officer Interpreters," December 1917, unnamed file, Box 1740, AIS Miscellaneous Data, RG120, NACP; 335-006 Memorandum from Major Hubbard to A. C. of S. G-2 GHQ AEF, Subject: Book on Austro-Hungarian Uniforms, 4 November 1918, File 24 Request For Publications French-British, AIS Miscellaneous Data, RG120, NACP.

Army Schools also maintained a library in Langres, where the AIS was located. AIS faculty had ready access to the materials in these libraries. In fact, Captain Hubbard and other members of the faculty had more than ready access because they kept some library materials well past their due dates.

Correspondence between one of the library custodians, Lieutenant P. H. Moseley, and AIS faculty members Lieutenant William A. Kimbel, Captain Hubbard, and Captain Marsching, shows that the library staff was generally proactive in notifying the AIS when items of interest to the school arrived at the library. As soon as he received a book on German uniforms in the intelligence library, Moseley forwarded a note to Captain Marsching of the fact. The officers subsequently arranged for the delivery of the book to the intelligence school.⁴⁵⁸

From these examples it is clear Nolan wanted to draw from British experience in setting up the Army Intelligence School curriculum, organization of the course, and even target audience. This does not mean Nolan or the new staff of the AIS ignored American experience. The AIS staff obtained copies of the course and daily schedules from the Army School of the Line and the entire course book for the second Army General Staff School. In addition to giving them a list of all the intelligence related classes given at

⁴⁵⁸ Memorandum from 2LT P. H. Moseley, Officer in Charge of the Library, G-2, GHQ AEF, for Captain Hubbard, 24 September 1918, File 36 Library, AIS Miscellaneous Data, RG120, NACP; Memorandum from 1LT Kimbel for Intelligence Library, G-2, GHQ, 25 October 1918, File 36 Library, AIS Miscellaneous Data, RG120, NACP; Memorandum from P.H. Moseley, 2LT, Officer in Charge of the Library, G-2, GHQ AEF, for Captain J.H. Marsching, 9 November 1918, File 36 Library, AIS Miscellaneous Data, RG120, NACP; Army Intelligence School memorandum from Major J.H. Marsching for Officer in Charge, Library G-2, GHQ, 5 December 1918, File 36 Library, AIS Miscellaneous Data, RG120, NACP.

these schools, these documents gave them a template for producing their own schedules and course work.⁴⁵⁹

American Engineering and Allied Aviation

The Army Engineering School also was located in Langres. In January, 1918, the engineering school created a topographic section which offered a three week course for higher level intelligence staff officers and a one week course for Regimental Intelligence and Battalion Scout Officers. When the AIS started in July, the topographic section transferred to the intelligence school and continued in operation. Major John H. Wheat, the primary instructor for the Topography Section, stayed on as the lead instructor for all three AIS courses, though he received a lieutenant schooled in the knowledge of branch intelligence as an assistant.⁴⁶⁰

The addition of the American Topography Section to the Army Intelligence School is especially important as it shows that wherever AEF personnel already possessed a particular skill set, it did not borrow from the allies. MAJ Wheat was already accomplished in cartography and aerial photos, so he taught these subjects at the AIS. He was not familiar with the duties of an intelligence officer attached to an aviation unit, on the other hand, so the AIS instructors gave him a lieutenant who had served as a branch intelligence officer and in addition had attended the British intelligence school to get

⁴⁵⁹ Army School of the Line memorandum, 26 May 1918, File Schedules of Course Army Intel School, AIS Miscellaneous Data, RG120, NACP; Schedule of Work Army School of the Line 1st Class, File Schedules of Course Army Intel School, AIS Miscellaneous Data, RG120, NACP; Army General Staff College AEF France Second Course, File Miscellaneous Data, AIS Miscellaneous Data, RG120, NACP.

⁴⁶⁰ Major J. H. Marsching, "History," 9.

further training. This illustration highlights the broader trend of the AEF and adaptation from the allies: keep what you already have; take what you don't.

Evolving the School

Just as Nolan did not stop collecting information from the allies once he created *Intelligence Regulations* and organizations, the instructors at the school did not stop collecting intelligence knowledge from the allies, whether it was about allied organizations and operating procedures; methods of school instruction; or enemy organization, tactics, and location. They performed their duties, just as the rest of the AEF was doing, in the midst of personnel changes and increasing suggestions from American units gaining experience on the front lines. The AIS, as the acknowledged reference source for intelligence practice, received and responded to these suggestions. Unlike most other schools, however, the end of the war brought a new purpose to the AIS which affected the condition of the students in the school as well as the purpose of the school. Brigadier General Nolan and the AIS faculty sought to bring in the most experienced intelligence officers not only to receive the instruction, but also to offer their own experiences as a basis for developing the future U.S. army intelligence organization, regulations, and operating procedures. The third course of the AIS came to be a collection point for lessons learned about regimental and divisional intelligence operations.

Qualified and experienced officers were in short supply throughout the war, and at times “military exigencies necessitated some changes.”⁴⁶¹ Although Nolan probably desired stability in the instructor corps at the AIS, he accepted the reality of the need for officers at the front. Within his AEF G-2 section, the only personnel who remained in the G-2 staff for the duration of the war were the section chiefs.⁴⁶² At the AIS, not even the director remained for the duration of the war. Major Catron left for temporary duty in the G-2 section of the First Army, after the end of the first course, but he never returned. By the end of the war, he was serving as the Assistant G-2 for the First Army.⁴⁶³ Lieutenant Pattrick replaced Lieutenant Davey in the middle of the first course so Davey could take up a position in the Topographic Section (G-2-C) of the Headquarters, First Army.⁴⁶⁴ Lieutenant McGibney moved from the Order of Battle section to the Airplane Photographs section to assist Major Wheat and Lieutenant Pattrick. Both Pattrick and McGibney departed after the first course to take up positions in the G-2 section for First Army.⁴⁶⁵ First Lieutenant Regmar T. Kidde came from the AEF G-2 to serve as an assistant adjutant during the second course. Kidde later took over as the adjutant, freeing Major Marsching to take up dual position as the acting director of the school while

⁴⁶¹ Major J. H. Marsching, “History,” 2.

⁴⁶² “General Nolan’s Dictation of March 2, 1935,” No. 7, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6-8.

⁴⁶³ for Major Catron’s temporary duty to 1st Army see GHQ AEF Special Orders No. 250 Extract, Paragraph 46, 7 September 1918, AIS Miscellaneous Data, RG120, NACP; also Headquarters Army Schools, Special Orders No. 293 Extract, Paragraph 3, 24 October 1918, File 21 Special Orders, AIS, RG120, NACP; eventually followed up by the GHQ AEF, GHQ AEF Special Orders No. 310 Extract, Paragraph 84, 6 November 1918, File 21 Special Orders, AIS, RG120, NACP. Also see Nolan’s comments on sending the most experienced officers to fill corps and army intelligence positions in “General Nolan’s Dictation of March 2, 1935,” No. 7, Box 2 of 4, Dennis E. Nolan Papers, USAMHI, Carlisle Barracks, Pennsylvania, 6.

⁴⁶⁴ GHQ AEF Special Orders No. 242 Extract, Paragraph 71, 30 August 1918, File Students Orders, AIS Miscellaneous Data, RG120, NACP.

⁴⁶⁵ Davey, GHQ AEF Special Orders No. 242 Extract, Paragraph 71, 30 August 1918, File Students Orders, AIS Miscellaneous Data, RG120, NACP.

maintaining position as the senior instructor for prisoners and documents.⁴⁶⁶ First Lieutenant E. L. Hain replaced both Pattrick and McGibney for the second course when they left to take positions in the First Army G-2 sections.⁴⁶⁷ First Lieutenant William A. Kimbel impressed the instructors so much as a student that he was kept after the first course to be an instructor for the second and third courses.⁴⁶⁸

New instructors sought opportunities for travel to gain more insights into allied practices. In early November, after their instruction for the second course was complete, Lieutenant Kimbel and Lieutenant Terry traveled to London to observe the British Intelligence School. Kimbel went to observe the classes on the German Army and Order of Battle, while Terry went to observe the classes on Branch Intelligence work. Even instructors who remained at the AIS for all three courses asked to travel to obtain the most up to date information possible, but Brigadier General Nolan did not usually approve these requests. Lieutenant Mason requested to go to the II Corps to look at the methods employed by the regimental and divisional intelligence sections. Lieutenant Marsching requested to take a ten day research trip to Italy to obtain information on the Austro-Hungarian army. Neither was approved by Nolan. Marsching subsequently forwarded a request for printed information on the Austro-Hungarian through the allied

⁴⁶⁶ GHQ AEF Special Orders No. 278 Extract, Paragraph 64, 5 October 1918, File 21 Special Orders, AIS Miscellaneous Data, RG120, NACP.

⁴⁶⁷ Acting Adjutant Captain L. L. Lee, Special Orders No. 106, 1st Lieutenant E. L. Hain to AIS, 10 October 1918, File 21 Special Orders, AIS Miscellaneous Data, RG120, NACP.

⁴⁶⁸ GHQ AEF Special Orders No. 249 Extract, Paragraph 23, 6 September 1918, File 21 Special Orders, AIS Miscellaneous Data, RG120, NACP.

military mission to the Italian army to make up for the disapproved personal travel request.⁴⁶⁹

American Experiences

Changes in American experience were not limited to the instructors. As U.S. divisions gained training and then combat experience, they began to present suggestions for improvements to the intelligence system. When Lieutenant Colonel Marlborough Churchill provided his memorandum on positive intelligence training to the War Department Chief of Staff in August 1918, he commended the training efforts of the Third and Thirty-Second Divisions. His recommendation for improving the training of divisions in the United States included practices adapted from the two divisions.⁴⁷⁰ The AIS staff received the memorandum on 12 September 1918.

Perhaps not coincidentally, the Third Division intelligence officer, Major Theodore K. Spencer forwarded several different lectures and intelligence items to the III Corps G-2 section in late September 1918. The lectures came from the division's unit intelligence school. The other items supported Spencer's description of two successful practices employed by the division's intelligence sections. First, the section employed a two-sided intelligence report with 1:20,000 scale sketch maps on one side of the sheet and spaced

⁴⁶⁹ letter from Major for GS02(I) British Mission to Commandant Intelligence School Harrow-on-the-Hill, 2 November 1918, File 7 Instructors Travel, AIS Miscellaneous Data, RG120, NACP; memorandum from Director Army Intelligence School to A. C. of S. GHQ AEF G-2, Subject: Request for Orders, with four indorsements, 6 November 1918, File 7 Instructors Travel, AIS Miscellaneous Data, RG120, NACP; memorandum from Captain J. H. Marsching to Acting Director, Army Intelligence School, Subject: Austro-Hungarian Uniform and Insignia research work, 22 October 1918, File 7 Instructors Travel, AIS Miscellaneous Data, RG120, NACP.

⁴⁷⁰ Memorandum from Marlborough Churchill for the Chief of Staff, General Staff, War Department, Subject: Training of Positive Intelligence Personnel, August 1918, File Lectures, AIS Miscellaneous Data, RG120, NACP.

paragraph headings for a regimental intelligence report on the other side. This pre-printed form facilitated rapid production of intelligence reports at regimental level. Spencer demonstrated the practical use of the form to the Thirty-Second Division when it relieved the Third Division. The Thirty-Second Division adopted the format for their use as well. Second, Spencer noted that documents on prisoners often failed to reach the interrogators at division and higher levels. He solved the problem by issuing sand bags and string to the RIOs to place applicable documents inside for carrying by the prisoners while they were being escorted to the rear areas. Spencer had briefed the military police in his area to check and ensure the papers made it with the prisoners to the prisoner of war cages.⁴⁷¹

Stebbins, the III Corps G-2, forwarded Spencer's memorandum, sketch sheet, and lecture notes to the First Army G-2. He included a note proposing the creation of a digest of intelligence practices all the divisions could draw on for training and operations. The documents made their way through the First Army to the AEF G-2 section, and eventually, to the AIS.⁴⁷² The idea of forwarding printed material, notes, lectures, and descriptions of any intelligence practices was not confined to the Third Division. The Eighty-Ninth Division forwarded some copies of an order annex with the plan of intelligence for the division's Field Order Number 12 to Major Catron. Handwritten on

⁴⁷¹ Memorandum with enclosed map and intelligence report template, from Theodore K. Spencer for G-2 III Corps, 22 September 1918, File School Schedule, AIS Miscellaneous Data, RG120, NACP.

⁴⁷² Letter from Stebbins to Colonel Willey Howell A. C. of S. G-2 1st Army with indorsement to G-2 GHQ AEF, 6 October 1918, File School Schedule, ASI Miscellaneous Data, RG120, NACP; coversheet from GHQ AEF Office of the Assistant Chief of Staff, G-2 to Intelligence School, marked for Lectures file, undated, File School Schedule, AIS Miscellaneous Data, RG120, NACP. The two sets of five lecture presentations for the 3rd Division Intelligence School can be found in the School Schedule file and Lectures file in the AIS Miscellaneous Data, RG120, NACP.

the top of the annex were the words “can you use these.”⁴⁷³ These examples illustrate the continual development of intelligence practices during the war. They also show the U.S. intelligence officers adjusted their own operating procedures over time as they came up with new ideas on how to perform tasks more efficiently. Such change is inevitable in any organization, but was especially so in the AEF because so much of the intelligence organization and practices were developed from the allies.

Armistice

The 11 November armistice changed the conditions of instruction at the Army Intelligence School. First, it eased personnel demands at the front, allowing the addition of instructors to the AIS for the third course. The AEF G-2 recalled Lieutenant Colonel Philip H. Bagby from duty at the British general headquarters to take up the position of director at the AIS. He brought his extensive knowledge of British intelligence practices to the American intelligence school. The AIS staff recommended Second Lieutenant Alexander B. Brandner and First Lieutenant Carleton M. Magoun to be instructors for the third course after they graduated from the second course (just as Kimbel had been recommended after the first course). Finally, Nolan sent First Lieutenant R. W. Kean from the AEF G-2 section to serve as an instructor.⁴⁷⁴

⁴⁷³ Annex for Paragraph 3 (H), Field Order 12, 89th Division, Plan of Intelligence, File Lectures, AIS Miscellaneous Data, RG120, NACP.

⁴⁷⁴ For Bagby, GHQ AEF Special Orders No. 329 Extract, Paragraph 165, 25 November 1918, File 21 Special Orders AIS, RG120, NACP; for Kean GHQ AEF Special Orders No. 315 Extract, Paragraph 293, 11 November 1918, File 21 Special Orders, AIS, RG120, NACP; for Magoun list of AIS second course students beginning with Akerman, undated, File 31 Students, AIS, RG120, NACP, 5; 333-096 GHQ AEF Special Orders No. 320, Extract, Paragraph 105, 16 November 1918, File 21 Special Orders, AIS, RG120, NACP .

Second, and more importantly, the armistice changed the focus of the third course of the AIS. The immediate reaction of the AEF headquarters was to close all of the army schools when the war ended. After a short time, however, it was decided the AIS would reopen for a third course. Major Hubbard outlined the changed focus in correspondence to Colonel Thomas and Colonel Conger. Hubbard asked the AEF headquarters staff to require officers attending the third course to have had actual front line experience as regimental or division intelligence officers and have a working knowledge of German.

it is suggested that officer[s] ordered from divisions be the best regimental Intelligence Officer from each division, and a certain number of Assistant Intelligence Officers from divisions. It is hoped that this will permit us to have by the end of the course of the school a digest of the opinions of these men as to the very best methods to be used in regimental and divisional intelligence work upon which future training in case of war can be based...their knowledge will be of great value in determining the necessary training to be given in the future.⁴⁷⁵

Here Hubbard explicitly made clear that a major purpose of the third course would be to capture “lessons learned” from the officers who actually performed their duties in combat. This was part of a larger effort by the AEF as a whole to gather lessons from the war experience to benefit army training for the future.⁴⁷⁶

⁴⁷⁵ Memorandum from Major Hubbard for Colonel Thomas, Students for the Next Intelligence School, 11 November 1918, File 30 Prospective Students, AIS Miscellaneous Data, RG120, NACP; Memorandum from Major Hubbard for Colonel Conger, 11 November 1918, File 30 Prospective Students, AIS Miscellaneous Data, RG120, NACP.

⁴⁷⁶ Kenneth E. Hamburger's, *Learning Lessons in the American Expeditionary Forces*, outlines three ways the AEF drew lessons from experience: from the French and British through allied instruction at training camps,

Most likely, Brigadier General Nolan convinced the AEF G-5 section to allow the AIS to conduct one final course in order to take the opportunity to gather as much information as possible from officers with front line experience within the framework of the school. The faculty and staff of the AIS and the AEF G-2 section were clearly thinking beyond the immediate needs of the AEF, even beyond the impending occupation of Germany. Having learned from the allies, written the first American intelligence regulations, and built an intelligence organization from the ground up, Nolan and the other members of the intelligence community did not want to waste any opportunity to capture any lessons from the World War. They had a particular interest in formalizing the knowledge base of their rapidly expanding field. Bringing the best intelligence officers from field units into the school would offer the greatest chance of preserving hard won lessons.

In keeping with the lessons learned and training focus of the third course, Lieutenant Colonel Bagby requested fifty copies of the pamphlet “Training Schedule for the Intelligence Sections of Regiments and Battalions” to issue to the students. This pamphlet reflected General Pershing’s instructions for the AEF to continue training after the war. The AIS students who would graduate in early January would likely be able to return to their units and participate, supervise, or organize training of their intelligence

through Americans’ own experiences on the front lines, and from the larger lessons the army developed from study of the war as they developed the postwar army and prepared for the next war. He concludes the U.S. army was least successful in the third method of lesson learning, and provides several examples demonstrating how the army ignored and later forgot lessons gained from World War I. I believe Hamburger’s assessment does not fit when examining the development of intelligence knowledge, and the focus on capturing lessons learned in the final AIS course contributed to this success. Hamburger, *Learning Lessons*, 5, 26.

sections. The course length also increased from six to eight weeks to facilitate the extra depth of discussion the faculty hoped to engender.⁴⁷⁷

Summary

Between November 1918 and January 1919, the staff at the Army Intelligence School tried to glean knowledge from the veteran American intelligence officer students and capture their experiences for future use in schools or in written doctrine. By that point thirty-nine AEF divisions had served on the front lines. In December 1917, when Captain Hubbard first suggested starting an intelligence school, only four divisions had arrived in France. Between December 1917 and November 1918, the AEF gathered allied intelligence knowledge to support the creation of an American intelligence school, sent officers to the British intelligence school, selected instructors, including three allied officers, built the curriculum, and started instruction. During the course, the instructors continued to draw from the allies by requesting a variety of publications through the AEF G-2 section and the Commandant of Schools to the allied military missions. Between courses, the instructors attempted to travel to the British intelligence school to gain more information about how the course was taught.

The development of the Army Intelligence School illustrates how the AEF drew on all available sources in order to develop a curriculum for the course. In doing so, the AIS became the center for thinking about intelligence methods in the AEF. The

⁴⁷⁷ memorandum from Lieutenant Colonel P. H. Bagby for Captain Tappin, G-2 GHQ, 23 December 1918, File 24 Request for Publications, French-British, AIS Miscellaneous Data, RG120, NACP ; Marsching, J. H. Major, "History," 2.

personnel conducting intelligence in the AEF G-2 section or the army, corps, division, and lower level intelligence sections lacked time for much reflection or access to a variety of intelligence methods for comparison and integration. Though busy, the instructors at the AIS had more time available for reflection than their front line counterparts. In its selection of instructors, development of course material, and conduct of classes, the Army Intelligence School attempted to achieve the best possible blend of American and allied knowledge to impart on the students.

Chapter 8: Thinking About Innovation

It should now be clear that when it came to intelligence methods and organization, Nolan led the AEF to copy much from the allies in order to get a working system in place as fast as possible. Yet the Americans did not copy allied methods evenly or completely, and the Americans could choose between the British and French systems. How did the AEF decide among the intelligence methods available to them? Why did the Americans occasionally employ their own methods?

Thinking About Innovation

A number of authors have examined how armies change, or innovate, during peace and in war. The focus of these studies primarily has been upon “innovation,” which Peter Rosen defines as “a change in one of the primary combat arms of a service in the way it fights or alternatively, as the creation of a new combat arm.” Innovation involves changing the concepts or ideas for the way a combat arm uses its forces to win a campaign, as well as changing the relationship of one combat arm to the others and downgrading or abandoning older concepts or previously dominant weapons. Changes in

doctrine which leave the essential workings of the organization unaltered to not count as innovation by Rosen's definition.⁴⁷⁸

Although innovation can happen in peace and during war, Rosen says the different conditions change the character of innovation in either case. Military forces in war, unlike in peace, have more of the character of a functioning bureaucracy with a strong incentive to learn from experience. Peacetime innovation can occur over decades, while wartime innovation must move from thought to implementation in two or three years, or even less. War offers the chance to evaluate old and innovative methods in combat. Leaders may die or be replaced in war, allowing younger and/or more innovative officers to move up in the ranks.⁴⁷⁹

All these factors tend toward the "common sense" idea that wartime innovation is widespread because war provides the required environment for learning. While there are examples that support this idea, Rosen notes some examples which do not, such as the British experience at Gallipoli in the First World War, or British Bomber Command under Sir Arthur Harris in the Second World War.⁴⁸⁰ One of the problems with presuming wartime experience will lead to innovation is that while unsuccessful operations may show what should not be done, but they do not show what should be done. It can be very difficult to determine what exactly is working or why, and while desire to improve is strong, so is the fear of sponsoring an innovation that fails.⁴⁸¹

⁴⁷⁸Peter Rosen, *Winning the Next War: Innovation and the Modern Military*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell University Press, 1991), 7-8. Rosen can be forgiven for ignoring changes in support functions which could have as important an impact as combat functions on the conduct of war.

⁴⁷⁹Rosen, *Winning the Next War*, 22-23.

⁴⁸⁰Rosen, *Winning the Next War*, 24-27.

⁴⁸¹Rosen, *Winning the Next War*, 25-26.

Rosen suggests breaking down wartime learning into two different kinds of changes. The first kind of change is organizational learning in the context of existing missions where feedback allows the ability to reform and improve one's ability to execute these missions. This, says Rosen, is reform, not innovation. When a new mission must be invented in order to achieve victory, however, that is innovation. Learning a new mission, however, is extremely difficult.⁴⁸²

Innovation is difficult because the means for evaluating one's own performance are usually only adequate for established missions. Each organization has its own criteria for determining effectiveness and feedback methods for determining whether the criteria are being achieved.⁴⁸³ These criteria indicate how well operations are proceeding toward the strategic goal. If an inappropriate strategic goal is being pursued, or the relationship between military operations and the goal has been misunderstood, then innovation will be required. Until a new strategic goal is selected and/or a new relationship between operations developed to support the goal, however, "organizational learning relevant to innovation cannot take place." The organization will learn from its experiences in terms of existing feedback mechanisms. Rosen believes failing to do well will only inspire the organization to improve on its current methods, not develop new ones, until a new goal and operational relationships are developed. Once new goals and operational relationships are developed, tight, centralized control facilitates the dissemination of the new methods throughout the organization.⁴⁸⁴

⁴⁸²Rosen, *Winning the Next War*, 27-29.

⁴⁸³Rosen, *Winning the Next War*, 30.

⁴⁸⁴Rosen, *Winning the Next War*, 35, 39.

France and Britain underwent this process of developing new goals and operational relationships during the First World War. By the time the Americans entered the war, these goals and objectives had been largely worked out.⁴⁸⁵ Because the AEF was lacking in so many areas—aviation, artillery, armor, and intelligence, for example—it was easy for the Americans to grab what they needed from the allies. The AEF adapted allied intelligence methods and organization because the American army did not have a corresponding system. The metric for judging was easy: allies had a system, the Americans did not. Although the Americans had been experimenting with aircraft, the observation squadron which accompanied Pershing into Mexico was nothing compared to the air forces employed by the allies. In a certain sense, the AEF lacked any realistic measure of effectiveness relating to these combat arms since the American army did not have any realistic capability with them. Going from nothing to something was therefore an easy choice.

Within this broad generalization, details suggest that when the Americans considered their own methods to be superior (whether or not they really were), they opted for American methods. When choosing between British and French methods, Nolan and his assistants chose based on their own perceptions of which methods were better, or whose equipment they were going to use. Robert Bruce suggests the AEF did precisely this when it accepted French artillery, tank, and aircraft training methods.⁴⁸⁶ In the realm of intelligence, Nolan quickly learned, if he did not know before he sailed on the *S.S.*

⁴⁸⁵ But see Rosen's "The British Army and the Tank, 1914-1918," which argues the conception of how to use the tank at the tactical and operational level did not become set until 1918. He ascribes the delay in conceptual development to a slowness of organizational learning based in part on the absence of tight central control in the British Army. Rosen, *Winning the Next War*, 127-129.

⁴⁸⁶ Rosen, *Winning the Next War*, 2; Bruce, *A Fraternity of Arms*, 126-128.

Baltic, that the allied armies had built up a complex intelligence organization with a variety of collection methods, teams of analysts, and methods for directing information gathering and disseminating intelligence. Nolan had a number of choices to make concerning the AEF organization. He could essentially adopt either the French or British systems. He could try to create a hybrid of the two. Or he could go his own way in developing an American system.

The final option was not really feasible because the AEF lacked the time required to create its own intelligence system from scratch. A hybrid system could take the best from each country, but might still not work as well as adopting a system principally from one country. Nolan said both systems were equally effective, so he chose based on the similarity in character of the British and American military forces, as well as the similar language. Given Nolan had little of his own experience on which to judge the comparative effectiveness of the two systems, it is more likely that these were really the prime criteria leading him to choose to adopt the British system over the French system. The AEF *Intelligence Regulations* were almost word for word copies in most places from the British Second Army intelligence instructions. Copying from English documents eliminated a time consuming translation step when time was of importance.

In some areas the Americans did stick to their own methods. AIS instructor Major Wheat's knowledge of aerial photography and map making was sufficient for him to be detailed as the head instructor for these topics. He did not have any experience with the functions of the Branch Intelligence Officer, however, so Nolan brought in Lieutenant

McGibney, who had practical experience with the position and training at the British Intelligence School at Harrow-on-the-Hill, to serve as Wheat's assistant.⁴⁸⁷

In one instance, the AEF adopted French methods even though they appeared to be inferior to American methods. The G-2-C Topographical Section, although it believed American survey equipment and procedures to be superior to either the British or French methods, chose to follow French methods for building maps because the sections had to use French equipment for lack of sufficient American equipment in Europe. The American units mainly fought alongside the French, so having a common mapping system was essential as well.⁴⁸⁸

Innovation: Intelligence and Infantry Compared

The few instances where the AEF did not copy directly from the allies for intelligence only highlight how completely the intelligence system as a whole drew upon allied methods and organization. In contrast, historians have characterized AEF infantry tactical methods, at least as defended by General Pershing and some other senior American leaders, as very resistant to allied methods and organization. The Americans did actually draw from the allies, however. When President Wilson declared war in April 1917, the United States Army did not possess any automatic rifles, light trench mortars, or light infantry cannons, but they all made their way into the organizations of the infantry units, along with an entire battalion of those "emergency weapons," machine

⁴⁸⁷ Marshing, "History, RG120, NACP, 1-3, 9-10,

⁴⁸⁸ The report of the G-2-C Topography Section of the AEF G-2 provides extensive detail on the advantages and disadvantages of the various mapping systems; R. G. Alexander, "Report of G-2-C, G.H.Q., A.E.F., 1 June 1919, RG120, NACP. Finnegan, *Shooting the Front*, mentions the contrast in American and French methods more succinctly.

guns, for each infantry brigade.⁴⁸⁹ Why then have historians focused so much more on the one area Pershing and many senior Americans opposed drawing from the allies than the multiple areas where Americans drew from the allies freely?

One reason for the focus on Pershing's opposition to allied tactical methods is the contrast between Pershing's claims for the AEF's great success with historians' assessments that the AEF was not qualitatively effective. Obviously, if allied fighting methods were inferior to American fighting methods, there would be no reason for the AEF to adopt them. Even if allied methods were equivalently successful, there would be little justification for the AEF to adopt them because of the disruption of effectiveness which would accompany the change. It is because historians have concluded allied methods were superior to the American way of fighting that they have focused so greatly upon Pershing's claims.

Pershing, however, did not have the benefit of decades of post-World War I hindsight. He had previous personal experience in the successful Spanish-American War, Philippine Insurrection, and Punitive Expedition where mobile infantry tactics proved sufficient, and he had observed modern fighting methods in the Russo-Japanese War where the superior morale and fighting spirit of the Japanese army had seemed to result in victory. Grotelueschen believes the American experiences in the Indian Wars, Spanish-American and Philippine Wars, the Punitive Expedition, and any other similar operations "encouraged officers to think of battle in a certain way—as a meeting engagement of small groups of infantry that relied primarily on the rifle, the bayonet, and

⁴⁸⁹ Grotelueschen, *AEF Way of War*, 13-14, 16.

wide, sweeping maneuvers.”⁴⁹⁰ The Americans, especially Pershing, thus entered the war with a body of experiences supporting thinking directly opposed to British and French conceptions of battle. This thinking was embedded in the army’s doctrinal manuals--the branch *Drill Regulations* and the *Field Service Regulations of 1905 through 1917*--and taught at the Service Schools.⁴⁹¹ Put in Rosen’s terms, the allies had changed their strategic goals, operational methods, and measures of effectiveness over the course of the war, but Pershing and the Americans had not.

This great contrast between the AEF’s incorporation of allied weapons and organization and Pershing’s views of the way war should be fought is another reason historians have focused on the open warfare debate. Donald Smythe, Timothy Nenninger, and other historians have highlighted Pershing’s insistence that American soldiers be trained in open warfare techniques. They describe how Pershing pushed American instructors to take the place of allied instructors as soon as possible, junior leaders split their training time in both open and trench warfare techniques, American tactical doctrine became confused, and American tactical ability suffered.⁴⁹²

In *Military Innovation in the Interwar Period*, Alan Beyerchen offers a useful schema for understanding this contrast between big ideas about war, such as Pershing’s “open warfare” doctrine, and the employment of new or improved equipment, including trench mortars, machine guns, aeroplanes, or wireless stations. Beyerchen broadly

⁴⁹⁰ Grotelueschen, *AEF Way of War*, 12.

⁴⁹¹ Groteluechen’s first Chapter, “Dotrine, Dogma, and Development in the AEF,” offers an excellent and concise summary of American doctrinal development from 1914-1918; Grotelueschen, *AEF Way of War*, 10-58.

⁴⁹² Nenninger, “Tactical Dysfunction,” 177, 180-181; Robert B. Bruce, *A Fraternity of Arms*, (Lawrence: University Press of Kansas, 2003), 119-128; Smythe, *Pershing*, 72-73.

characterizes change into three categories, much like historians have for analytical purposes divided war into tactical, operational, and strategic levels. The three types of change involve equipment, procedures, and context which have different levels of impact: technical, operational, and technological, respectively.

Type of Change	Levels of Change	Levels of War
Context	Technological	Strategy
Procedures	Operational	Operations
Equipment	Technical	Tactics

In this schema, the development of a more capable or entirely new piece of equipment is a technical change. The changes in procedures which a military force make in order to optimize the use of the equipment are operational changes. Changes in the way armies think about war once the new systems have been fully integrated are technological changes. Using radar as an illustration, Beyerchen calls the creation of a new or improved system (such as a radar operating with wavelengths in the centimeter band) a technical change. Operational change is the development of functions and procedures to employ the system (such as looking for new targets or changing the way operators scan for targets based on using the new system). Technological change is the development of

a new way of thinking about war, such as Britain redesigning its air defense system to make radar the primary method of detecting incoming aircraft.⁴⁹³

Pershing defined the context, open warfare, in which he intended for the AEF to fight. This context did not preclude the use of tanks, airplanes, heavy artillery, trench mortars, or any other weapons and equipment developed during the First World War, it just prescribed their appropriate use.⁴⁹⁴ The allies gave the Americans all of these weapons, taught them the specific procedures for employing the weapons, and assisted with the organizational changes needed to integrate these weapons into the American units. With new equipment and procedures, American units underwent technical and operational change as they learned through training and combat how to use the weapons and equipment assigned. What the British and French generally failed to do, at least initially, was to help the AEF leaders make the technological change in point of view about how the war *should* be fought, the context in which the weapons and equipment could best be employed.

In *The AEF Way of War*, Grotelueschen “examines a war of ideas waged within the AEF between those who adhered to the traditional, human-centered ideas of the prewar army and those who increasingly appreciated the modern, industrial ideas more prevalent in European armies.”⁴⁹⁵ Beyerchen’s schema and the example of the development of intelligence in the AEF help to explain why and how this war of ideas

⁴⁹³ Alan Beyerchen, “Interwar Military Adaptation to Technological Change in Germany, the United Kingdom, and the United States,” *Military Innovation in the Interwar Period*, ed. Williamson Murray and Alan R. Millett (New York: Cambridge University Press, 1996), 268.

⁴⁹⁴ Or at least should have, had the ideas of open warfare been updated/codified in the FSRs to describe how these new weapons fit into an open warfare scheme.

⁴⁹⁵ Grotelueschen, *The AEF Way of War*, 6.

occurred. The differences between the way Pershing and the allied leaders viewed warfighting were certainly important, but they did not go away when Pershing had allied instructors replaced because the “damage” had already been done. By allowing the integration of new weapons and equipment and their associated procedures into the AEF, Pershing and other American leaders essentially brought in all the technical and operational changes which made a technological change favoring “trench warfare” possible.

Pershing emphasized the supreme importance of the rifle armed soldier, relegating all other weapons and equipment to a support role. As the AEF commander, he provided the vision, or context, for warfighting. He did not focus on the technical or procedural aspects of warfare per se, except where they involved his preeminent fighter, the riflemen. Pershing was concerned that the soldier could employ his rifle effectively, so he emphasized rifle marksmanship. Pershing wanted his troops to be able to maneuver their forces to be able to place maximum rifle fire upon the enemy, so he emphasized movement over open ground. He did not focus to the same degree on other weapons and equipment or in other battlefield functions such as intelligence. The further afield from the rifle armed soldier, the less Pershing paid attention.

Intelligence was far afield from the rifle armed soldier (except in the case of the battalion scouts and observers); Pershing’s influence was correspondingly small. The essential character of the intelligence regulations centered on trench warfare concepts. They might include a paragraph or two here and there about open warfare (directly copied from the British), but the intelligence regulations invited technical and operational

changes in the American army which supported trench warfare more than an open warfare context. The II Corps Infantry Weapons School's Sniping and Observation Section asked its graduates to be able to ride a horse or motorcycle or drive a car, change a tire, and navigate cross-country by starlight, but again, most of the instruction covered the construction and maintenance of trench line observation posts and sniping between two trench lines.

The allies had spent three years working through the process of introducing new equipment, changing procedures, and developing a new context for warfighting focused on limited offensives employing massive combined arms firepower. By adopting allied intelligence methods, Nolan gave the AEF the equipment, organization, and procedures needed to support warfighting from an allied trench warfare context. Intelligence may have been the extreme end of adopting allied methods, but even Pershing's treasured infantrymen succumbed to this process. At the same time Pershing was espousing the value of the infantryman with rifle and bayonet, his infantry platoons were organizing like French infantry platoons with an automatic rifle section, rifle grenade section, hand grenade section, and rifle section per platoon. Pershing might have better achieved his goal of keeping the riflemen preeminent had he not allowed the incorporation of all the auxiliary weapons into infantry organizations. Their presence, along with airplanes, tanks, and an intelligence structure all designed for trench warfare, ensured that unit commanders would try to use them to greatest effect, even without allied teachers

pointing the way. In that sense, the development of a war of ideas over the context for warfighting that Grotelueschen describes was almost inevitable.⁴⁹⁶

⁴⁹⁶ I say almost inevitable because WWII illustrates the nature of warfare Pershing envisioned (less the supreme emphasis on the rifleman). Mortars, airplanes, artillery, and tanks could also support a mobile/open warfare doctrine—just contrast the German and French views of warfare in the interwar years through 1940 to see this. The problem was the Americans did not have a doctrine (i.e. the 1917 FSR) which effectively explained how to use mortars, airplanes, etc., to fight in open warfare, so in lieu of that the Americans just adopted allied practice. The AEF therefore, received the European context for these weapons rather than providing their own.

Conclusion

In 1914 the American army was not that far behind its peers across the Atlantic. It had a permanent intelligence organization at the national level and attaches sending reports to the War Department from their stations abroad. Although the British army had official intelligence regulations and the American army did not, Wagner's *Service of Security and Information* served as a semi-official text approved for use by the War Department in officer examinations. The newly developed *Field Service Regulations* included sections relating to intelligence and called for the creation of an intelligence service in wartime, as the British had done.

However, while fighting the Central Power from 1914 to 1917, the British and French armies developed and expanded their intelligence capabilities, creating the framework for intelligence methods and organization which are still in use today. Much of this growth occurred in specialized, technical intelligence collection via aerial photography, radio interception and direction finding, and sound and flash ranging, with a corresponding increase in the number of analysts needed to make sense of the data. Even the less technically oriented collection methods, scouting, observation, and prisoner interrogations, expanded in scope and complexity.

American officers read about some of these developments, just as they read about aviation, armor, and artillery developments, but very little effective change happened in

either American doctrine or organization while the nation was at peace. When the United States finally entered the war in 1917, and President Wilson made the determination to send a large ground force to Europe to fight Germany, General Pershing and his senior staff members had to make some rapid decisions concerning the development of the AEF. For Nolan, the decision was whether and whom to choose to serve as the model for American intelligence.

After researching the British and French systems on board the *S.S. Baltic*, Nolan took the opportunity upon arriving in Europe to inspect both armies in operations in the field. He brought his assistants with him and sent other officers then and later to observe both armies and report on their strengths and weaknesses. Nolan eventually chose the BEF as the model for American intelligence, copying the British Second Army instructions in some instances word for word as the *AEF Intelligence Regulations* while organizing intelligence sections from battalion to army level basically along the lines of the intelligence organizations in the BEF. Nolan made small changes here and there to account for differences between the two armies: he ended up with a Corps of Interpreters instead of Intelligence Corps Officers, he did not create intelligence personnel at infantry brigade level because the British did not have a comparable echelon in their own army, and he left artillery intelligence alone because the American artillery units modeled after the French instead of the British. On the whole, however, Nolan grafted British methods and organization into the AEF to rapidly grow American intelligence.

Pershing personally reviewed the *Intelligence Regulations*, approving them and the subsequently developed intelligence organization. At that point, having set American

intelligence on its feet, Nolan could have shifted focus and walked away from the allies for the most part. Instead, he continued to send officers to the British and French intelligence services, both for training and to bring back any useful points for incorporation into American practice.

Nolan's continual desire to draw from allied knowledge stands in sharp contrast with Pershing. Pershing's desire to "Americanize" training resulted in the withdrawal of British and French instructors over time from the AEF schools system. To a certain extent this process had less effect on intelligence than other areas. Officers and soldiers sent to the II Corps Schools at Chatillon-sur-Seine had the same allied instructors from the organization of the schools until October 1918. Even then, Americans might now teach intelligence tasks, but the regulations and organization remained derived from the allies. The Army Intelligence School (AIS) started operations in July 1918 with three allied officers. In January 1919 it ceased operations with three allied officers. Nolan and the successive AIS directors were happy to leave their allied instructors in place, acknowledging there were not better qualified Americans available.

The development of American intelligence in the First World War suggests it is too simplistic to view Pershing as an intransigent opponent of allied methods. Pershing was for an army with sufficient morale to conduct offensive operations. Had Pershing ever studied under Morrison at Fort Leavenworth, Pershing too would be considered a Morrison man because Pershing had the same soldier morale centric view of warfare. In 1914 essentially all the belligerents would have agreed with Pershing. By 1917 they did

not, and allied tactical and operational methods reflected the move toward a new view of warfare.

Unfortunately, when Pershing saw mutinous French troops huddled in trenches, reluctant to use their rifles, he concluded there must be something wrong with trench warfare. His American troops should not be exposed to too much trench warfare or they would lose their offensive spirit. Yet AEF intelligence escaped a negative association with trench warfare even though the allies had developed their own intelligence systems in a trench warfare context. Technical intelligence collection at higher echelons was too valuable to the commander and conceptually too different from the trench loving rifleman to be guilty by association. At the lowest echelon, the battalion scouts and snipers, even if their skills were optimized for trench warfare during training, still looked and sounded to Pershing like his ideal American soldiers: rifle-loving marksman, motivated and trained to advance on the enemy with individual initiative.

The irony is that Pershing, by accepting an American version of the allied intelligence systems, made it possible for AEF units to conduct the types of battles he opposed. The progressive buildup of the intelligence picture on a stabilized front was made possible by the intelligence collection methods available. These methods better supported an operation with limited objectives employing lots of artillery on the targets which could be located and efficiently communicated than any mobile operation Pershing could conceive. The same perhaps could be said of Pershing's acceptance of giving machine guns, automatic rifles, trench mortars, 37mm cannon, rifle grenades, and the other supporting weapons to infantry units. Pershing may have wanted the rifle armed

infantryman to be the focus of an operation, but by accepting all these weapons into service he made it possible for subordinates to employ them in a manner which minimized the importance of Pershing's rifleman.

Marc Grotelueschen offers four contentions relating to the AEF in World War I: doctrine is important to the success of an army; Pershing and other American leaders rejected advice and ideas from the allies, believing European doctrine inadequate; AEF doctrine was inadequate; and successful doctrinal adjustment came up from subordinate units. Examination of the development of AEF intelligence suggests historians sometimes undervalue what the Americans did take from the allies. In this case, Colonel Nolan essentially copied from allied experience, in some cases using the literal words and phrases in use in the British army. The amount of information Nolan and others drew from the allies supports the contention that AEF doctrine inadequate. At a minimum, it did not cover areas such as intelligence sufficiently. Nolan's sustained attention in gathering additional methods from the allies (and American forces) even after he created the intelligence organization and published intelligence regulations suggests that a leader receptive to change can greatly facilitate assimilating and disseminating new ideas from below.

Alan Beyerchen has suggested the most difficult change in innovation is technological, as a military organization struggles with developing a new context and concept for operations. The development of intelligence in the AEF supports this view, but it also suggests how successful doctrinal adjustment came from below. Pershing wanted an intelligence system that could effectively collect the information an army

needed to operate, and he needed it “now.” An allied system was obviously superior to the lack of an American system, so the AEF got an allied system. Pershing almost certainly did not foresee that adopting an intelligence system created to support allied operations in trench warfare set piece attacks with limited objectives would make it possible for AEF intelligence to provide the best support for similar attacks.

In World War I, the United States was the junior partner in a coalition war. The allies offered extensive assistance in a wide variety of ways. Based on examination of the development of intelligence in the AEF and a brief comparison with American infantry combat methods, it appears the Americans consistently took from the allies where they lacked their own, and kept what they already had. The Americans were more disposed to take equipment, and less disposed to take context. Pershing and other American leaders initially rejected allied doctrine in favor of their own. Pershing tried to maintain the ideals of open warfare as the basis for combat operations, but the integration of so much allied weapons, equipment, organization, and procedures tied to the context of allied trench warfare doctrine sowed the seeds of change. Junior leaders learned to employ these weapons and tactics, going through technical, operational, and eventually a technological change in their thinking. Adopting allied methodology, even in apparently innocuous areas such as intelligence, eventually reaped internal conflict over the way war should be fought.

The U.S. is still involved in coalition fighting across the globe, though now the Americans generally consider themselves to be the senior partner of any coalition. In many respects, the U.S. acts as the British and French did in World War I, offering

extensive assistance in a wide variety of ways to junior coalition partners. As of this writing, U.S. military forces are involved in dozens of countries in peace and conflict fighting beside and assisting local forces. American experience in World War I as a junior partner offers some cautions for American or any other “senior partners” in an advisory relationship.

The American experience as a coalition partner in the First World War suggests partners will most likely accept changes which involve completely new weapons or procedures which do not have a competitor in the partner’s organization, such as the AEF introducing intelligence regulations where there were none. If the change involves an area which the partner already has expertise, then the partner will be more likely to accept a new component in that area, or which can be clearly measured to be more effective, such as a fixed instead of handheld aerial camera, higher penetrating weapon, or faster software program.

The American experience also suggests it may be easier to change a partner’s doctrine indirectly by introducing a series of related items, all likely to be accepted, that mutually reinforce the same new context for warfighting, even if the new context is not explicitly mentioned. Over time the items will build momentum for the new context, just as the introduction of automatic rifles, rifle grenades, hand grenades, trench mortars, machine guns, and 37mm cannon slowly reshaped attitudes about the nature of infantry combat even though Pershing still espoused the primacy of the infantryman with rifle and bayonet.

The American experience in the First World War suggests that any advisor should try to empathize with the partner's point of view and vision of the nature of war when trying to introduce a new way of thinking. It may have seemed self-evident to the allies that the Americans should adopt their doctrine because the alternative would be high casualties and little success in battle. Yet from Pershing's point of view, the allies already had high casualties and little success in battle, at least compared to his own battle experience. Stephen Rosen explains the difficulties armies face when they lack the appropriate measure of effectiveness and feedback method to identify when and how change must happen.⁴⁹⁷ Proposed changes must be presented in terms of a measure of effectiveness that the partner understands.

Nolan's key role in developing the AEF intelligence suggests one should seek out those in positions of high responsibility who appear most receptive to change – focus on them when it comes to offering new ideas. As the G-2, Nolan had relative autonomy and control over intelligence in the AEF, and he demonstrated his openness to change by continually sending out officers to the allies after he had developed the intelligence regulations and requiring them to submit reports on what they had seen.

Most important, the senior advisor should not assume his/her view is automatically the best, especially for the force being advised. Although many historians have taken Pershing and other American officers to task for promulgating a doctrine inadequate to coordinating the different arms, few if any have examined the positive impact of Pershing's focus on inculcating the offensive spirit within the American

⁴⁹⁷ Stephen Rosen, *Winning the Next War*, 31-37.

soldier. This is surprising given how much praise the Imperial German army receives for having inculcating the offensive spirit in its army even when on the defensive through the use of counter-attack forces at all echelons.

Appendix A: Intelligence Definitions and Concepts

Intelligence⁴⁹⁸

1 a (1): the ability to learn or understand or to deal with new or trying situations
: REASON; *also* : the skilled use of reason (2): the ability to apply knowledge to
manipulate one's environment or to think abstractly as measured by objective criteria (as
tests) **b** *Christian Science* : the basic eternal quality of divine Mind **c:** mental acuteness
: SHREWDNESS

2 a: an intelligent entity; *especially* : ANGEL **b:** intelligent minds or mind
<cosmic *intelligence*>

3: the act of understanding : COMPREHENSION

4 a: INFORMATION NEWS **b:** information concerning an enemy or possible enemy
or an area; *also* : an agency engaged in obtaining such information

5: the ability to perform computer functions

What is Intelligence, anyway?

Military Intelligence has probably been around as long as warfare. Discussion of intelligence has been around almost as long as writing. Ancient Egyptian papyri discuss movements of Nubian and Hittite forces. Rose Mary Sheldon recently authored *Spies of the Bible: Espionage in Israel from the Exodus to the Bar Kokhba Revolt*. Sun Tsu's *Art of War* might even be considered the father of intelligence manuals. Intelligence methods employed by Egyptians, Hebrews, and Chinese would be quite familiar to Caesar, Napoleon, or even U.S. Grant. The relatively slow pace of technological and

⁴⁹⁸ "Intelligence," Merriam-Webster Online Dictionary, found @
<http://www.merriam-webster.com/dictionary/intelligence>

organizational change up to the 20th century provided little opportunity for change in the way information could be collected by nations and armies.

World War I, however, is important for military intelligence because it marks the first time that a number of different technical means for collecting information of military value came into widespread use.⁴⁹⁹ Establishing a set of terms to describe intelligence methods should enhance understanding of the changes which occurred in the war and facilitate analysis of the development of intelligence in the American army.

To assist with understanding technical definitions used by military forces, let us first look at the broader definition of “intelligence.” A broad connotation of the five definitions highlights intelligence as a type of mental ability. The first definition, however, highlights the difference between more general definitions of intelligence and a more specific military one. The process of dealing with a new situation, or manipulating the environment and thinking abstractly through linking a variety of pieces of information is the essence of a more technical definition of intelligence. Of the five listed definitions for intelligence, Merriam-Webster’s fourth appears probably most closely fits more technical definitions used by military forces. In his research guide to military intelligence topics, Jonathan House defines intelligence as **“the product of systematic efforts to collect, confirm, evaluate, and correlate information from a variety of sources.”** Key is this difference between information and intelligence. Information is “unevaluated

⁴⁹⁹ Lighter than air balloons were invented in the 18th century, Napoleon I used a primitive telegraph to send messages to Paris, the first practical camera and wireless telegraphy were invented in the 19th century, and the first powered flight occurred in 1903. The Federal Army under generals such as U.S. Grant made routine use of the telegraph to transmit messages and experimented with using balloons for observation.

reports of every description.”⁵⁰⁰ Intelligence is the result of acting upon the information to create something new.

The United States Army gives a nod to the more general and more specific concepts of intelligence by defining the term in two ways. Intelligence is both “information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding”⁵⁰¹ and “the product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas.” The primary emphasis remains, however, upon the idea of intelligence as a product of an evaluative process.

Many groups, not just the military, employ intelligence in this more focused, technical manner. Governments, non-governmental organizations, and even sports teams, for example, produce intelligence. The New England Patriots football team was fined in 2007 for illegally collecting information about an opposing team’s sideline signals to the team members on the field, which it intended to use to predict what that team would do on future plays.⁵⁰² Of course, *military* intelligence differs because it more specifically focuses on the armed forces of enemies or potential enemies, as well as “analysis of the terrain, weather, industrial production, weapons, development, local diseases, and many other factors that affect military operations.”⁵⁰³

⁵⁰⁰ House, *Military Intelligence*, 2.

⁵⁰¹ FM 1-02 (FM 101-5-1) MCRP 5-12A, “Operational Terms and Graphics,” (Washington, D.C.: Headquarters, Department of the Army, September 2004), 1-101; the 1997 version of FM 101-5-1 offers essentially the same definition.

⁵⁰² Associated Press, “Belichick Eager to Move On From Spying Scandal,” MSNBC Online, found @ <http://www.msnbc.msn.com/id/20765334/>

⁵⁰³ House, *Military Intelligence*, 3.

Many disciplines incorporate a problem solving process which involves collecting, classifying, evaluating, and interpreting information and creating a product based on this process. In history, for example, a box of government reports represents information available to the historian, while an article or book incorporating the information represents the end product. History is different from intelligence, however, because in history, the end product primarily seeks to explain the events of the past, through analysis of causes and their consequences. Intelligence, on the other hand, is primarily concerned with the future: the product is generally developed from past events, but the recipient of the intelligence intends to use it to directly assist with making a decision later. In his book, House leaves implicit this difference between disciplines like history and military intelligence, but this difference comes out in his warning that the conclusions of the product are “often subjective and tentative, representing the best informed estimate of the analysts involved.”⁵⁰⁴ The distinction between history and military intelligence centers then, on the purpose of the product.

Generally speaking, the purpose of military intelligence is to help solve the problem of how best to defeat an enemy in conflict. Military forces have multiple echelons of commanders, each faced with a different version of the problem of defeating the enemy, and so each must make different decisions. Intelligence should assist with this decision making. A company or battalion commander generally needs to know about immediate events in a small area, while a head of state, commander-in-chief, or

⁵⁰⁴ Jonathan House, *Military Intelligence, 1870-1991: A Research Guide*, Research Guides in Military Studies, Number 6 (Westport, Conn., and London: Greenwood Press), 2. House bases his definitions on FM 30-5, FM 34-1, and Jorge Mena's, *Intelligence: The Challenge of the Century*; see footnote 1 on page 2.

commanding general looks more broadly over a larger area. The difference in the scope of the problem, the timescale, and the level and type of details needed means each level of a military organization has a different intelligence focus. Therefore, military intelligence may be categorized in different ways based on the level at which the intelligence is generated, the methods of collection, and the purpose or task of the intelligence.⁵⁰⁵

Levels of Intelligence

For conceptual purposes, intelligence is generally categorized into three levels. The highest level is called ***Strategic Intelligence***. At this level, intelligence concerns the intentions of any potential opponent; the capacity of the potential opponent to generate military forces; the strength, actions, capabilities, and missions of those forces; and the possible effects of those forces upon the military or national objectives of one's own nation.⁵⁰⁶ Nations conduct strategic intelligence whether at peace or at war. In the context of the U.S. Army before and during World War I, strategic intelligence included knowledge of the economic and combat capability of the allied and the central power nations, their dispositions, and national objectives. The next level is called ***Operational Intelligence***. At this level, theater, army, air force, or naval commanders seek intelligence to support the campaign/contingency plan intended to accomplish military or

⁵⁰⁵ House, *Military Intelligence*, 2.

⁵⁰⁶ House, *Military Intelligence*, 3.

national strategic objectives.⁵⁰⁷ In the context of the U.S. Army during World War I, operational intelligence included the locations and capabilities of German reserve divisions along the Western front; the movements of major ground, naval, and air units; and the nature of the terrain in an area of operations like the Meuse-Argonne. The lowest level is called *Tactical*, or *Combat Intelligence*. At this level, unit commanders of hundreds or thousands of men seek to know the doctrine, composition, disposition, actions, and intentions of enemy or other forces which threaten the unit's ability to accomplish its mission. Tactical Intelligence also concerns the immediate weather and terrain in the unit's area of operations.⁵⁰⁸ In the context of the U.S. Army during World War I, for example, tactical intelligence included weather forecasts for the 26th of September (the start of the Meuse-Argonne offensive); the locations of German fortifications, machine guns, and artillery positions, the possible counter-attack routes of German troops, and the types of chemical agents fired by German artillery.

This study focuses primarily upon combat intelligence in the AEF during the First World War. The U.S. army had at least formalized some strategic intelligence organizations and methods through the creation of the Military Information Division and the use of military attaches in the late 19th and early 20th centuries.⁵⁰⁹ However, this had not happened at the operational or tactical level by the start of World War I. This study,

⁵⁰⁷ House, *Military Intelligence*, 3.

⁵⁰⁸ House, *Military Intelligence*, 4.

⁵⁰⁹ For an extensive discussion of the development of strategic intelligence in the U.S. army, see Mark, B. Powe, *The Emergence of the War Department Intelligence Agency: 1885-1918*, (Manhattan, KS: Military Affairs, 1975); Bruce Bidwell, *History of the Military Intelligence Division, Department of the General Staff, 1775-1941*, (Frederick, MD: University Presses of America, 1986); *The Final Memoranda: Major General Ralph H. Van Deman, USA Ret., 1865-1952, Father of U.S. Military Intelligence*, ed. Ralph E. Weber, (Wilmington, DE: Scholarly Resources, 1988); and Alfred Vagts, *The Military Attache*, (Princeton: Princeton University Press, 1967).

therefore, examines combat intelligence as it transitioned from informal to formal intelligence practices.

**Appendix B: Comparison of Headings of British “Instructions” with AEF
*Regulations***

**Instructions for Intelligence Duties,
2nd Army, 1st May 1917**⁵¹⁰

1. Division of Work between Army and Corps
2. Intelligence work in Divisions, Brigades and Battalions
3. Duties of Intelligence Corps Officers attached to Corps
4. Duties of Intelligence Officers attached to Divisions
5. Intelligence work with Artillery Formations
6. Branch intelligence Sections with Army Wing and Corps Squadrons, RFC
7. Wireless Intelligence
8. Forwarding of Information by Corps to Army Headquarters
9. Forwarding of information obtained by Air Reconnaissances and from Kite Balloons
10. Movements of Hostile Airships
11. Issue of Daily Summaries of Intelligence
12. Examination of Prisoners
13. Examination of Documents
14. Responsibility for the Examination of Fallen Aeroplanes
15. Examination and forwarding of Trench Mortar Bombs, Grenades, and new patterns of Shell and Aeroplane Bombs
16. Weather Forecasts and Observations
17. Breaches of International Law by the Enemy
18. Press Correspondents
19. Prevention of Leakage of Information
20. Printing
21. Issue of Maps
22. Aeroplane Photographs
23. Panorama Photographs
24. Corps Topographic Sections
25. Censoring of Regimental Papers, etc.
26. Contre Espionage
27. Workmen's Passes
28. Precautions at Front Line

AEF Intelligence Regulations, 1917⁵¹¹

- General Principles of Military Intelligence
Division of Work Between Army and Corps
Intelligence Sections
Duties of Corps Intelligence Officers
- Forwarding of Information by Corps to Army Headquarters
 - Special Observers' Reports
 - Reports from Airplane and Balloon Observers
 - Issue of the Corps Summary of Intelligence
 - Information From Airplane Photographs
 - Distribution of Summaries
 - Arrangement and Contents of Summaries
 - Subject Headings for Summary of Intelligence
- Divisional Intelligence Sections
Intelligence Work of Brigades and Subordinate Units
Observation
Indications of Reliefs and Withdrawals of Enemy Units
Examination of Prisoners and Deserters
- Questions for Prisoners
 - Reports Required by Army Headquarters
 - Open Warfare
 - Offensive Operations, Trench Warfare
- Examination of Documents
- Collection of Documents in an Attack
 - Offensive Operations
 - Open Warfare
- Breaches of International Law by the Enemy
Examination and Forwarding of Trench-Mortar Bombs, Grenades and New Patterns of Shells and of Airplane Bombs
Intelligence Work with Artillery Units
Weather Observations and Forecast
Wireless Intelligence
Missions for Air Reconnaissance and Photographs
Intelligence Officers Attached to Army and Corps Air Units
Responsibility for the Examination of Fallen Airplanes
Contre-Espionage
- Trench Warfare
 - Open Warfare
 - Contre-Espionage Personnel
 - Candidates for Intelligence Police

⁵¹⁰ AWM 25/324/4 part 2, Contents page.

⁵¹¹ 426-001 *Intelligence Regulations* 31 AUG 1917, File Intelligence Regulations 1917-1923, Leroy W. Yarborough Papers, USAMHI, Carlisle Barracks, PA.

**Appendix C: Comparison of Selected Paragraphs of British “Instructions for
Intelligence Duties” and American *Intelligence Regulations***

- (iii) In addition, so long as the Army remains halted, Corps will be responsible for collecting and tabulating information regarding the area in their immediate front up to a distance of five miles in rear of the enemy's front trenches. Army Headquarters are responsible for collecting and collating information regarding the area further in rear. This information will be obtained from the study of air photographs, by observation from the trenches, etc., and from the statements of prisoners. It will probably be found that the most convenient manner of tabulating the information will be by an Intelligence Report, kept up to date by periodic supplements and accompanied by a series of trench maps, one map being reserved for each subject :- dumps, light railways, headquarters, buried cables, etc. Dates should be given with every item of information so as to enable the proper value to be attached to it.
- (iv) Corps will also keep up a complete record of all names that can be obtained from prisoners, documents, etc., of (1) officers of hostile formations and (2) enemy trenches and localities on their front. In the event of the hostile formation being relieved, its record will be forwarded to Army Headquarters.
- (v) It is essential that all ranks should be impressed with the importance of forwarding all captured equipment, documents and identity discs taken off prisoners or corpses at once to higher authorities. Whenever a raid or an attack which may lead to the capture of prisoners is in prospect, careful arrangements must be made by the formation concerned for the collection of all captured equipment, documents, etc., for examination by the Intelligence Branch of the General Staff...⁵¹²

11. The zone behind the enemy's lines for which Army Headquarters will be held responsible as regards the collecting and tabulating of information will be published in orders. Army corps will be responsible for a distance of five miles in rear of the enemy's front line. This information will be obtained from a study of air photographs, from statements of prisoners, from documents, by observation from the trenches, etc. The most convenient method of tabulating this information will be by an intelligence report kept up to date by periodic supplements and accompanied by a series of trench maps, one map being reserved for each subject, such as dumps, light railroads, headquarters, buried cables, wireless, etc. Dates should be given with every item of information to assist a determination of its value.
12. The corps intelligence officer will keep a complete record of: (a) The enemy's defensive works, including the names given trenches, approaches and roads, and (b) the enemy's units, including the names of officers. When any hostile unit is relieved from that part of the front its record will be forwarded to Army Headquarters.
13. All officers and enlisted men should be impressed with the importance of forwarding all captured documents, identity discs (of the enemy killed) and equipment taken from prisoners or captured. When a raid or an attack which may lead to the capture of prisoners is in prospect, careful arrangements must be made in advance for the collection of all documents and equipment and for their prompt examination by an intelligence officer. When possible an intelligence officer from Corps Headquarters should be.⁵¹³

⁵¹² "Instructions for Intelligence Duties," 1.

⁵¹³ *Intelligence Regulations*, 7.

Appendix D: List of Documents Samuel T. Hubbard Obtained from BEF

Annex⁵¹⁴

The following papers can be obtained on application if any heads of sections or subsections are interested.

1. Outline of Intelligence Canadian Corps, Duties of Officers.
- 1-A. Report on Conference Division Intelligence Officers, Canadian.
2. Report on Intelligence work of Passchendaele operations.
3. Divisional Intelligence File Passchendaele Area 3rd Canadian Division, -very complete report.
4. Conference Staff Captains Divisional Headquarters Canadians on Intelligence Work
5. Conference on combined artillery and brigade C.P. (Canadian)
6. Destructive Shoots logged for respective target areas, Canadian.
7. Report on destructive shoots by infantry observers assisting F.O.O's (Canadian).
8. Summary of 3rd Canadian Division Intelligence.
9. Report on harassing fire.
10. Arrangements for examination and disposal of prisoners and documents.
11. Conference of Intelligence Staff Captains Canadian Nov. 8th.
12. Branch Intelligence Section Report on Photographs Taken.
13. Report of adopted outline for issuing of aeroplane photographs and mosaics.
14. Contour map of Passchendaele area showing character of map prepared and issued by Canadian Corps.

1st Army

15. Organization of Intelligence Section; Duties of officers outlined
16. 1st Army Intelligence Summary
17. Syllabus of course for brigade and battalion intelligence officers.
18. Duties of brigade intelligence officers.
19. Scale of issue of maps.

Headquarters

20. Review of method of obtaining information on man power, including examination of prisoners.
21. German man power draft 1917.
22. German Pay books (soldbuch).
23. Blank for classification of German prisoners.
- 23-A. Instructions to German officers regarding examination of prisoners.
24. Intelligence application blank.
25. Outline of duties of officers of war trade Division Intelligence Section.
26. Instructions for officers and NCO's war trade division Intelligence Section with lists of articles found.
27. Estimate of German guns on British front Dec. 19-20, 1917.
28. Method of filing artillery activity information, including artillery tactics.
29. Activity of enemy's artillery during week ended 19th Dec. 1917, 4th Army.
30. Hostile Artillery week ending Dec. 12th, 3rd Army.
31. 3rd Army Intelligence Summary, 17th Dec. 1917

⁵¹⁴ "Annex," File Conger, Arthur L. LTC WWI 1798, Arthur L. Conger Papers, USAMHI.

Appendix E: Tables Comparing Intelligence Organizations

Table 1: Comparison of Intelligence Staff in French, British, and German Armies (Not Including Enlisted Men)

	BEF (1917)	French (1916)	German (1916)
Army	2 General Staff Officers 8 Intelligence Corps Officers (Incl. 1 w/Heavy Artillery and 1 w/RFC Wing)	1 staff officer 3 assistants	1 staff officer 2 assistants
Corps	1 General Staff Officer 4 Intelligence Corps Officers (Incl. 1 w/Heavy Artillery and 1 w/RFC Squadron)	1 staff officer 1 interpreter	3 officers
Division	1 General Staff Officer 1 Intelligence Corps Officer		1 officer

Table 2: General Headquarters Organization--BEF vs. AEF

BEF (as of July 1917) ⁵¹⁵	AEF (as of NOV 1918)
I(a) Operational Intelligence	G-2-A Military Information Division
I(a) Major Cornwall (Order of Battle)	G-2-A-1 Battle Order (JUL 1917)
I(g) War Trade	G-2-A-2 General Political and Economic Information, Prisoners and Documents, later Artillery Material, Economics, and Translations
I(a) Major Cuffe (Situation Maps, Enemy works, plans, probable movements)	G-2-A-3 Enemy Works
I(a) Captain Dening (Preparation/Publication)	G-2-A-4 Publications (split into A-4/A-8)
I(a) Captain Whitefoord (German Artillery)	G-2-A-5 Artillery Intelligence
I(e) Wireless and Ciphers	G-2-A-6 Wireless Intelligence/Radio Intelligence
	G-2-A-7 Aviation Intelligence (JUL 1917)
I(a) Major Dunnington-Jefferson (Dissemination of Information)	G-2-A-8 Dissemination and Filing
I(x) Intelligence Corps (Administration)	G-2-A-9 Personnel
I(b) Secret Service (Espionage and Counter-Espionage)	G-2-B Secret Service Division (JUL 1917)
I(b) Captain Speyer (agent reports and records, accounts, sources)	Subsection I Admin and Finance
	Subsection II Positive Intel and Translations
I(b) Major Menzies (Counterespionage, military and civil population)	Subsection III Counterespionage
	Subsection IV Civilians, Bolsheviks, Corps of Interpreters, Circulation
I(c) Topographical and Maps	G-2-C Topographic Division (JUL 1917)
I(c) Captain Field (Map stocks, Lithography/Photography, Reproduction, Publication, Records, Field Survey)	Map Supply
	Topographic Survey
	Map Reproduction
	Sound and Flash Ranging
I(h) Postal and Telegraphic Censorship	G-2-D Press and Censorship Division (SEP 1917)
I(d) Press (British and Allied, Censor, Photography, and Cinematography)	Censorship Section (Press, Postal, Prisoner)
	Propaganda Section (JUL 1918)
	Artists Section (APR 1918)
	Photographic Section (OCT 1918)
	Stars and Stripes (FEB 1918)
I(f) Visitors	G-2-E Visitor's Bureau (NOV 1918)

⁵¹⁵ Occleshaw, *Armour Against Fate*, 388-389.

Table 3: Comparison of BEF and AEF Army Headquarters Intelligence Staff

BEF (as of MAY 1917)	AEF (as of NOV 1918)⁵¹⁶
GSO1(I) Section Head	Colonel, GS, Section Head
GSO3(I) Deputy Section Head	Lieutenant Colonel, GS, Deputy Section Head
I(a) German army unit identifications: Two Intel Corps Officers	G-2-A Order of Battle: 1 CPT, 1 LT
I(a) Airplane photographs: One Intel Corps Officer	G-2-A Airplane Photographs (and Enemy Works): 1 CPT, 1 LT
I(a) One officer and four NCOs from subordinate units to augment Intel Corps Officer for interrogations	G-2-A Prisoners and Documents: 1 CPT (Corps of Interpreters), 8 LTs (C. of I.)
I(e) Wireless: Two Intel Corps Officers	G-2-A Radio Intelligence: 1 CPT, 1 LT
I(b) Counterespionage: One Intel Corps Officer	G-2-B Counterespionage: 1 CPT, 1 LT
I(c) Topography and Map Making	G-2-C Topography and Map Making
RFC Wing: One Branch Intel Officer per squadron (except scout squadrons) ⁵¹⁷	Army Air Services: 1 MAJ, 1 CPT, 6 LTs (one per group of three squadrons)
Army Heavy Artillery: One Branch Intel Officer	Army Artillery Headquarters: 1 LTC or MAJ ⁵¹⁸
	Press, Propaganda and Visitors: 2 CPTs, 1 LT
	Telephone Reports Officer: 1 LT

⁵¹⁶ Second Section (G-2) Headquarters, First Army, "Report," 18 NOV 1918, File 200.01 Report of G-2, 1st Army St. Mihiel, Meuse-Argonne, RG120, NARA, 1-5.

⁵¹⁷ Major Daniel M. Henry, "Report on my visit to the British Army," 7 MAR 1918, Arthur L. Conger Papers, USAMHI, 4.

⁵¹⁸ "Table 203 – Army Artillery Headquarters, Maximum and Minimum Strength," Series C, corrected to 25 OCT 1918, USAWW, Vol. 1, 218.

Bibliography

A. Archival Sources

AWM 25. Written Records, 1914-1918, War. Australian War Memorial.

Record Group 120. Records of the American Expeditionary Forces. National Archives at College Park, Maryland.

Arthur L. Conger Papers, AEF General Headquarters, World War I Veterans Survey Above Division, United States Army Military History Institute, Carlisle Barracks, Pennsylvania.

Nathan F. McClure Papers, United States Military Academy Library, West Point, New York.

Dennis E. Nolan Papers. United States Army Military History Institute, Carlisle Barracks, Pennsylvania.

Leroy W. Yarborough Papers. United States Army Military History Institute, Carlisle Barracks, Pennsylvania.

B. Government Publications

Affairs in the Philippine Islands: Hearings before the Committee on the Philippines of the United States Senate. Washington, D.C.: GPO, 1902.

American Expeditionary Forces. *Infantry Drill Regulations (Provisional) Part I.* Paris: Imprimerie E. Fesfosses, 1918.

The Army Almanac: A Book of Facts Concerning the Army of the United States. Washington, D.C.: GPO, 1950.

Army War College. *Notes on Recent Operations No. 2.* Washington, D.C.: GPO, 1917.

- Ayres, Leonard P. *The War With Germany: A Statistical Summary*. Washington, D.C.: GPO, 1919.
- Bjornstad, A. W. *Small Problems for Infantry*. Fort Leavenworth, Kansas: Press of The Army Service Schools, 1916.
- Center of Military History. *The United States Army in the World War, 1917-1919*. 17 vols. Washington, D.C.: GPO, 1989.
- Finnegan, John Patrick. *Military Intelligence*. Ed. Jeffrey J. Clark. Army Lineage Series. Washington, D.C.: Center of Military History, 2006.
- _____. *The Military Intelligence Story: A Photo History*. Fort Belvoir, Va.: U.S. Army Intelligence and Security Command, 1994.
- _____. *Military Intelligence: A Picture History*. 2d ed. Fort Belvoir, Va.: U.S. Army Intelligence and Security Command, 1992.
- Finnegan, Terrence J. *Shooting the Front: Allied Aerial Reconnaissance and Photographic Interpretation on the Western Front-World War I*. Washington, D.C.: GPO, 2006.
- General Staff, War Office. *Handbook of the French Army, 1914*. Reprint. Nashville, TN: Battery Press, 1995.
- Headquarters, Department of the Army. *AR 600-20 Army Command Policy*. Washington, D.C.: GPO, 18 March 2008.
- Headquarters, Department of the Army. *FM 1-02 Operational Terms and Graphics*. Washington, D.C.: GPO, 21 September 2004.
- Headquarters, Department of the Army. *FM 3-0 Operations*. Washington, D.C.: GPO, 14 June 2001.
- Office of the Chief of Staff. *Field Service Regulations, United States Army, 1905, With Amendments to 1908*. Washington D.C.: GPO, 1908.
- Office of the Chief of Staff. *Field Service Regulations, United States Army, 1914, Corrected to July 31, 1918*. Washington D.C.: GPO, 1918.
- Office of the Chief of Staff. *Infantry Drill Regulations, United States Army, 1904*. Washington D.C.: GPO, 1904.
- Office of the Chief of Staff. *Infantry Drill Regulations, United States Army, 1911*. Washington, D.C.: GPO, 1911.

- Problems in Troop Leading: An Infantry Division.* Fort Leavenworth, Kansas: The Army Service Schools Press, 1916.
- Scales, Robert H. *Certain Victory.* United States Army in the Gulf War. Washington, D.C.: GPO, 1993.
- United States Adjutant Generals Office. *General Orders and Circulars, Adjutant General's Office*, 1902. Washington, D.C.: GPO, 1903.
- United States Army, 1st Division. *World War Records; First Division, A.E.F., Regular.* 25 vols. 1928.
- United States War Department. *Field Service Regulations, 1905 (with Amendments to 1908).* Washington, D.C: GPO, 1908.
- United States War Department. *Field Service Regulations 1913 (With corrections to May 21, 1913).* Washington, D.C: GPO, 1913.
- United States War Department. *Field Service Regulations, 1914 (Text corrections to February 4, 1916 Changes No. 4).* New York: Army and Navy Journal, 1914.
- United States War Department. *Infantry Drill Regulations, United States Army.* Adopted 8 October 1898. New York: Army and Navy Journal, 1898.
- United States War Department General Staff. *United States Military Intelligence.* New York: Garland Publishing, 1978.
- War Department. Office of the Chief Signal Officer. *Final Report of the Radio Intelligence Section, General Staff, General Headquarters, American Expeditionary Forces.* Washington, D.C.: Office of the Chief Signal Officer, 1935.
- _____. *Report of Code Compilation Section, General Headquarters, American Expeditionary Forces, December 1917-November 1918.* Washington, D.C.: Office of the Chief Signal Officer, 1935.
- Wilson, John B. *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades.* Army Lineage Series, CMH Pub 60-14. Washington, D.C: Center of Military History, 1998.

C. Electronic Sources

- Daughters of the American Revolution Magazine*, "Aircraft Insignia, Aero Squadrons, and Aircraft," Research Materials/Source Documents, AFEHRI File 19-2, Air

Force Enlisted Heritage Research Institute, web site:
<http://afehri.maxwell.af.mil/info/research/number.htm>.

“Radio Intelligence on the Mexican Border.” Fort Meade, MD: Center Cryptologic History:
http://www.nsa.gov/about/cryptologic_heritage/center_crypt_history/publications
...

D. Published Works

Adler, J.O., Leonard G. McAneny, and August Kaiser. *History of the Seventy-Seventh Division: August 25, 1918 – November 11th, 1918*. New York: 77th Division Association, 1919.

Bailey, Maxwell. *The Amalgamation Controversy, 1917-1918: America's Fight For Independence*. Maxwell Air Force Base: Air War College, 1998.

Beach, J. "'Intelligent Civilians in Uniform': The British Expeditionary Force's Intelligence Corps Officers, 1914-1918". *War & Society*. 27, no. 1 (2008): 1-22.

Beach, Jim. "Origins of the Special Intelligence Relationship? Anglo-American Intelligence Cooperation on the Western Front, 1917-1918." *Intelligence and National Security*, Vol. 22, No. 2 (April 2007): 229-249.

Bethel, Elizabeth. "The Military Information Division: Origin of the Intelligence Division." *Military Affairs* 11 (1947): 17-24.

Beyerchen, Alan. "Interwar Military Adaptation to Technological Change in Germany, the United Kingdom, and the United States." *Military Innovation in the Interwar Period*. ed. Williamson Murray and Alan R. Millet. New York: Cambridge University Press, 1996.

Bidwell, Bruce W. *History of the Military Intelligence Division, Department of the General Staff, 1775-1941*. Foreign Intelligence Book Series. Frederick, Md.: University Presses of America, 1986.

Bigelow, Michael E. "The First Steps: Battalion S2s in World War I." *Military Intelligence* (Jan-Mar 1992): 26-31.

Blankenhorn, Heber. *Adventures in Propaganda: Letters from an Intelligence Officer in France*. Boston: Houghton Mifflin Company, 1919.

Blue Spaders: The 26th Infantry Regiment, 1917-1967. ed. Steven Weingartner. Cantigny Military History Series. Wheaton, IL: Cantigny First Division Foundation, 1996.

- Braim, Paul F. *The Test of Battle: The American Expeditionary Forces in the Meuse Argonne Campaign*. Newark: University of Delaware Press, 1987.
- British and American Approaches to Intelligence*. ed. K. G. Robertson. Rusi Defense Studies Series. Hampshire and London: MacMillan Press, 1987.
- The British Army and Signals Intelligence During the First World War*. ed. John Ferris. Publications of the Army Records Society, Vol. 8. Gloucestershire: Allan Sutton, 1992.
- Brodie, Bernard and Fawn. *From Crossbow to H-Bomb: The Evolution of the Weapons and Tactics of Warfare*. Revised Edition. Bloomington: Indiana Univ. Press, 1973.
- Bruce, Robert B. *A Fraternity of Arms: America and France in the Great War*. Lawrence: University Press of Kansas, 2003.
- Bruce, Robert B. "American Embraces France: Marshal Joseph Joffre and the French Mission to the United States, April-May 1917." *Journal of Military History*. Volume 66, No. 2 (April 2002).
- The Challenge of Change: Military Institutions and New Realities, 1918-1941*. ed. Harold R. Winton and David R. Mets. Studies in War Society and the Military (London and Lincoln: University of Nebraska Press, 2000).
- Charteris, John. *At G.H.Q.* London, Toronto, Melbourne, & Sidney: Cassell and Company, 1931.
- Churchill, Marlborough. "The Military Intelligence Division, General Staff." *Journal of the United States Artillery* 52 (1920): 293-315
- Cochrane, Rexmond C. *The 33rd Division Along the Meuse, 1918*. Army Chemical Center: U.S. Army Chemical Corps Historical Studies, 1958.
- Coffman, Edward. *The Old Army: A Portrait of the American Army in Peacetime, 1784-1898*. New York: Oxford University Press, 1986.
- _____. *The Regulars: The American Army 1898-1941*. Cambridge, Massachusetts: Belknap Press, 2004.
- _____. *The War to End All Wars: The American military Experience in World War I*. New York: Oxford University Press, 1968.
- Conger, A. L. *The Rise of U.S. Grant*. New York: The Century Co., 1931.

- Cooke, James J. *The All-Americans at War: The 82nd Division in the Great War, 1917-1918*.
- Cooke, James J. *Pershing and His Generals: Command and Staff in the AEF*. Westport, Conn: Praeger, 1997.
- Constantanides, George C. *Intelligence and Espionage: An Analytical Bibliography*. Boulder, Colo.: Westview Press, 1983.
- Cosmas, Graham A. *An Army for Empire: The United States Army in the Spanish American War*. College Station, TX: Texas A&M University Press, 1994.
- Crouch, Tom D. *The Eagle Aloft: Two Centuries of the Balloon in America*. Washington, D.C.: Smithsonian Institution Press, 1983.
- Cutter, C. S. "Intelligence Service in the World War." *Infantry Journal* 20 (1922): 376-83.
- Deman, Ralph H. Van. *The Final Memoranda: Major General Ralph H. Can Deman, USA Ret., 1865-1952, Father of U.S. Military Intelligence*. ed. Ralph E. Weber. Wilmington, DE: Scholarly Resources, 1988.
- The Diffusion of Military Technology and Ideas*. Ed. Emily O. Goldman and Leslie C. Eliason. Stanford, CA: Stanford University Press, 2003.
- Dockrill, Michael L, and David French. *Strategy and Intelligence: British Policy During the First World War*. London and Rio Grande, OH: Hambledon Press, 1996.
- Donant, Alan E. *Colonel Arthur L. Conger*. Pasadena, CA: Theosophical University Press, 1999.
- Dunes, Allen. *The Craft of Intelligence*. New York: Harper and Row, 1963.
- The Dynamics of Military Revolution, 1300-2050*. ed. MacGregor Knox and Williamson Murray. Cambridge, NY: Cambridge University Press, 2001.
- Eisenhower, John S. D. *Yanks: The Epic Story of the American Army in World War I*. New York: The Free Press, 2001.
- Farwell, Byron. *Over There: The United States and the Great War, 1917-1918*. New York: W.W. Norton and Co, 1999.
- Fergusson, Thomas G. *British Military Intelligence, 1870-1914: The Development of a Modern Intelligence Organization*. Foreign Intelligence Book Series. Frederick, Md.: University Publications of America, 1984.

- Field Service Regulations (Felddienst Ordnung, 1908) of the German Army, 1908.* trans. General Staff, War Office. London: Harrison and Sons, n.d.
- Finnegan, John P. *Against the Specter of a Dragon: The Campaign for American Military Preparedness, 1914-1917.* Westport, CT: Greenwood Press, 1974.
- Furse, George A. *Information in War: Its Acquisition and Transmission.* London: William Clowes & Sons, 1895.
- Gowenlock, Thomas Russell. *Soldiers of Darkness.* Garden City, NY: Doubleday Doran and Coy, 1937.
- Grotelueschen, Mark E. *The AEF Way of War: The American Army and Combat in World War I.* New York and Cambridge: Cambridge University Press, 2007.
- Hahn, James Emmanuel. *The Intelligence Service within the Canadian Corps, 1914-1918.* Toronto: MacMillan Co, 1930.
- Hamburger, Kenneth E. *Learning Lessons in the American Expeditionary Forces.* CMH Pub 24-1. Carlisle Barracks, Pennsylvania: United States Army Center for Military History, 1997.
- Harbord, James G. *The American Army in France, 1917-1919.* Boston: Little Brown & Company, 1936.
- Harris, Stephen M. *British Military Intelligence in the Crimean War, 1854-1856.* London and Portland, OR: Frank Cass, 1999.
- Hewes, James. *From Root to MacNamara: Army Organization and Administration, 1900-1963.* Washington, D.C.: U.S. Army Center of Military History, 1975.
- Hinrichs, Ernest. *Listening In: Intercepting German Trench Communications in World War I.* ed. Ernest H. Hinrichs, Jr. Shippensburg, Pennsylvania: White Mane Books, 1996.
- Hoehling, A.A. *The Fierce Lambs.* Boston and Toronto: Little Brown and Co, 1960.
- Hoyt, Charles B. *Heroes of the Argonne: An Authentic History of the Thirty-Fifth Division.* Kansas City: Franklin Hudson Publishing, 1919.
- Hubbard, Samuel T. *Memoirs of a Staff Officer, 1917-1919.* Reprint. Tuckahoe, N.Y.: Cardinal Associates, Inc., 1959.
- Huidekoper, Frederic L. *The History of the 33rd Division AEF.* 4 vols. Danville, Illinois: Illinois Printing Company, 1921.

- Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge, MA: Harvard University Press, 1985.
- Infield, Glenn B. *Unarmed and Unafraid: The First Complete History of Men, Missions, Training, and Techniques of Aerial Reconnaissance*. London: MacMillan Company, 1970.
- Innes, John R. *Flash Spotters and Sound Rangers, How they lived, Worked, and Fought in the Great War*. London: George Allen & Unwin Ltd, [1935] 1997.
- Jacobson, Gerald F. *History of the 107th Infantry, U.S.A.* New York: Seventy Regiment Armory, 1920.
- Johnson, Douglas V. II and Rolfe L. Hillman, Jr. *Soissons, 1918*. College Station, Texas: Texas A&M University Press, 1999.
- Johnson, Douglas V. II. "Training the 1st Division for World War I." *Cantigny at Seventy-Five: A Professional Discussion, May 28-29, 1993*. Cantigny Military History Series. Wheaton, IL: Robert R. McCormick Tribune Foundation, 1994.
- Keegan, John. *Intelligence in War*. New York: Alfred A. Knopf, 2003.
- Knowing One's Enemies: Intelligence Assessment Before the Two Wars*. Ed. Ernest May. Princeton: Princeton University Press, 1984.
- Knowing Your Friends: Intelligence Inside Alliances and Coalitions from 1914 to the Cold War*. ed. Martin S. Alexander. Cass Series: Studies in Intelligence. London and Portland, Oregon: Frank Cass, 1998.
- Kovach, Karen. *The Life and Times of MG Dennis E. Nolan, 1872-1956: The Army's First G-2*. Fort Belvoir, VA: History Office, Office of the Chief of Staff, U.S. Army Intelligence and Security Command, 1998.
- Lawrence, Joseph D. *Fighting Soldier: The AEF in 1918*. ed. Robert H. Ferrell. Boulder, CO: Colorado Associated University Press, 1985).
- Linn, Brian M. *The U.S. Army and Counterinsurgency in the Philippine War, 1899-1902*. Chapel Hill and London: University of North Carolina Press, 1989.
- Lowenthal, Mark M. *U.S. Intelligence: Evolution and Anatomy*. New York: Praeger, 1984.
- Macomb, M.M. "The Importance of the Scientific Study of Military History." *Proceedings of the New York State Historical Association*. Vol. 15 (1916): 103-.
- Marshall, George C. *Memoirs of My Services in the World War, 1917-1918*. Boston: Houghton Mifflin Company, 1976.

- McCrae, Donald M. *Offensive Fighting*. Philadelphia and London: J.B. Lippincott Company, 1918.
- Military Innovation in the Interwar Period*. ed. Williamson Murray and Allan R. Millett. New York: Cambridge University Press, 1996.
- Millett, Allan R. *The General: Robert L. Bullard and Officership in the United States Army, 1881-1925*. Contributions in Military History, No 10. Westport, Connecticut: Greenwood Press, 1975.
- Millett, Allan R. and Peter Maslowski. *For the Common Defense: A Military History of the United States of America*. Revised and Expanded Edition. New York: The Free Press, 1994.
- Morgan, William A. "Invasion on the Ether: Radio Intelligence at the Battle of St. Mihiel, September 1918." *Military Affairs* 51 (1987): 57-61.
- Morrow, John H. Jr. *The Great War in the Air: Military Aviation from 1909 to 1921*. Paperback Edition. Tuscaloosa, AL: University of Alabama Press, 2009.
- Murphy, Elmer A., and Robert S. Thomas. *The Thirtieth Division In the World War*. Lepanto: Old Hickory Publishing Company, 1936.
- Nenninger, Timothy K. *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881-1918*. Westport, CT: Greenwood Press, 1978.
- _____. "Tactical Dysfunction in the AEF, 1917-1918." *Military Affairs*. Vol. 51, No. 4 (Oct., 1987), 177-181.
- Occleshaw, Michael. *Armour Against Fate: British Military Intelligence in the First World War*. London: Columbus Books, 1989.
- Odom, William O. *After the Trenches: The Transformation of U.S. Army Doctrine, 1918-1939*. Military History Series Number 64. College Station, TX: Texas A&M University, 1999.
- Palmer, Frederick. *Newton D. Baker: America At War*. 2 Vols. New York: Dodd Mead & Company, 1931.
- Parish, John C. "Intelligence Work at First Army Headquarters." *Historical Outlook* 11 (1920): 213-17.
- Parson, William Barclay. *The American Engineers in France*. New York: D. Appleton and Company, 1920.

- Pershing, John J. *My Experiences in the World War*. 2 vols. New York: Frederick A. Stokes, 1931.
- Popplewell, Richard. "British Intelligence in Mesopotamia, 1914-1916." *Intelligence and Military Operations*. ed. Michael I. Handel. London: CASS, 1990.
- Powe, Marc B. "American Military Intelligence Comes of Age: A Sketch of the man and His Times." *Military Review* 55 (December 1975): 17-30.
- _____. "A Sketch of the man and His Times." *The Final Memoranda: Major General Ralph H. Van Deman, USA Ret., 1865-1952, Father of U.S. Military Intelligence*. ed. Ralph E. Weber. Wilmington, Delaware: Scholarly Resources, 1988, ix-xxv.
- _____. Powe, Marc B. *The Emergence of the War Department Intelligence Agency: 1885-1918*. Instant Publishing Series. Manhattan, KS: Military Affairs, 1975.
- _____. "The History of American Military Intelligence--A Review of Selected Literature." *Military Affairs* 39 (1975): 142-45.
- Powe, Marc B. and Wilson, Edward E. *The Evolution of American Military Intelligence*. Fort Huachuca, Ariz.: U.S. Army Intelligence Center and School, 1973.
- Powell, E. Alexander. *The Army Behind the Army*. New York: Charles Scribner's Sons, 1919.
- Rainey, James W. "Ambivalent Warfare: The Tactical Doctrine of the AEF in World War I." *Parameters*. 13 (Sept., 1983), 34-46.
- _____. "The Questionable Training of the AEF in World War I." *Parameters: Journal of the U.S. Army War College*. 22 (Winter 1992-93): 89-103.
- Reardon, Carol. *Soldiers and Scholars: The U.S. Army and the Uses of Military History, 1865-1920*. Modern War Studies. Lawrence, KS: University Press of Kansas, 1990.
- Robertson, K. G., ed. *British and American Approaches to Intelligence*. New York: St. Martin's Press, 1987.
- Robertson, Sir William R. *From Private to Field Marshal*. Boston and New York: Houghton Mifflin Co, 1921.
- Roosevelt, Theodore. *Average Americans*. New York and London: Knickerbocker Press, 1919.
- Rosen, Peter. *Winning the Next War: Innovation and the Modern Military*. Cornell Studies in Security Affairs. Ithaca, NY: Cornell University Press, 1991.

- Royle, Trevor. *Crimea: The Great Crimean War, 1854-1856*. New York: Palgrave Macmillan, 2000.
- Sanborn, Joseph B. *The 131st Infantry (First Infantry Illinois National Guard) in the World War*. Chicago, IL: unk, 1919.
- Scales, Robert. *Certain Victory: United States Army in the Gulf War*. Washington, D.C.: Office of the Chief of Staff, United States Army, 1993.
- Schwieen, Edwin E. *Combat Intelligence: Its Acquisition and Transmission*. Washington, D.C.: Infantry Journal Press, 1936.
- Scott, Paul R. "The Birth of the 2s: Combat Intelligence in the American Expeditionary Force." *Military Intelligence* 6 (1980): 25-26.
- Scriven, George P. "The Transmission of Military Intelligence." *Journal of the Military Service Institution of the United States*. Vol. 41, No. 148 (July-August 1907): 58-84.
- Seligmann, Matthew S. *Spies in Uniform: British Military and Naval Intelligence On the Eve of the First World War*. Oxford, New York: Oxford University Press, 2006.
- Sheffy, Yigal. *British Military Intelligence in the Palestine Campaign, 1914-1918*. London: Cass, 1998.
- Showalter, Dennis E. *Tannenberg: Clash of Empires*. Hamden, Connecticut: Archon Books, 1991.
- Smythe, Donald. *Guerrilla Warrior: The Early Life of John J. Pershing*. New York: Scribner, 1973.
- _____. *Pershing: General of the Armies*. Bloomington: Indiana University Press, 1986.
- Strategy and Intelligence: British Policy During the First World War*. ed. Michael Dockrill and David French. London and Rio Grande: Hambledon Press, 1996.
- Strong, Maj. Gen. Sir Kenneth. *Men of Intelligence*. London: Cassell, 1970.
- Sullivan, Willard P., and Harry Tucker. *The History of the 105th Regiment of Engineers*. New York: George H. Doran Company, 1919.
- Talbert, Roy Jr. *Negative Intelligence: The Army and the American left, 1917-1941*. Jackson: University Press of Mississippi, 1991.
- Thomas, Shipley. *S2 in Action*. Harrisburg: Military Service Publishing Co., 1940.

- Trask, David R. *The AEF and Coalition Warming, 1917-1918*. Lawrence, Kansas: University Press of Kansas, 1993.
- Travers, Tim. *How the War Was Won*. New York: Routledge, 1992.
- _____. *The Killing Ground: The British Army, the Western Front and the Emergence of Modern Warfare, 1900-1918*. London: Allen & Unwin, 1990.
- Trueblood, Edward A. *Observations of an American Soldier During His Service with the AEF in France in the Flash Ranging Service*. Sacramento, Calif.: News Publishing, 1919.
- Utley, Robert M. *Frontier Regulars: The United States Army and the Indian, 1861-1891*. New York: MacMillan, 1973.
- Vagts, Alfred. *The Military Attache*. Princeton: Princeton University Press, 1967.
- Van Deman, Ralph H. *The Final Memoranda: Major General Ralph H. Van Deman, USA Ret., 1865-1952: Father of U.S. Military Intelligence*. Ed. Ralph E. Weber. Wilmington, Del.: Scholarly Resources, 1988.
- Vandiver, Frank E. *Black Jack: The Life and Times of John J. Pershing*. College Station: Texas A&M University, 1977.
- Volkman, Ernest. *Warriors of the Night: Spies, Soldiers, and American Intelligence*. New York: William Morrow, 1985.
- Wagner, Arthur L. *The Service of Security and Information*. Second Edition. Washington, D.C.: John J. Chapman, 1983.
- _____. *The Service of Security and Information*. Kansas City: Hudson Kimberley Publishing Co., 1893.
- _____. *Organization and Tactics*. Seventh Edition. Kansas City: Hudson Kimberly Publishing, 1906.
- Weigley, Russell. *Towards and American Army: Military Thought from Washington to Marshall*. New York and London: Columbia University Press, 1962.
- Whitmarsh, Andrew. "British Army Manoeuvres and the Development of Military Aviation, 1910-1913." *War in History*, Vol. 14, No. 3 (2007): 325-346
- Wolseley, Sir Gernet J. *The Soldier's Pocket-Book for Field Service*. Second Edition Revised and Enlarged. London and New York: MacMillan and Co., 1871.

Wood, Eric Fisher. *The Notebook of an Intelligence Officer*. New York: Century Company, 1917.

Woodward, David R. *Trial by Friendship: Anglo-American Relations 1917-1918*. Lexington, KY: University Press of Kentucky, 1983.

Yockelson, Mitchell A. *Borrowed Soldiers: American Under British Command, 1918*. Campaigns and Commanders Series. Norman, OK: University of Oklahoma Press, 2008.

E. Theses, Dissertations, and Unpublished Works

Beach, James. "British Intelligence and the German Army, 1914-1918." PhD diss. University College London, 2004.

Beaver II, William Carpenter. *The Development of the Intelligence Division and its Role in Aspects of Imperial Policy Making, 1854-1901*. PhD diss. Oxford University, 1987.

Clark, Jason P. "The Many Faces of Reform: Military Progressivism in the U.S. Army, 1866-1916." PhD diss. Duke University, 2009.

Doty, James L. "Allied Experience and American Expeditionary Forces Schools: Gathering Intelligence Knowledge for the Army Intelligence School, Langres, France." Thesis (M.A.) Ohio State University, 2005.

Jacobsmeier, Paul J. "Intelligence in the American Expeditionary Force: The Experience of the Thirty-Second Division, September 1917 – November 1918." Thesis (M.A.) University of Wisconsin-Madison, 1986.

Johnson, Douglas V., II. "A Few 'Squads Left' and Off to France: Training the American Army in the U.S. for WWI." PhD diss. Temple University, 1972.

"Lecture by MAJ A. L. Conger on Historical Research." The Engineering School, Camp A. A. Humphrey's, Virginia, [1920?]. United States Army Military History Institute, Carlisle, Pennsylvania.

Nolan, Dennis E. "Military Intelligence in the AEF." Lecture, Army War College, Fort Humphrey's, D.C. 19 May 1935. Combined Arms Research Library, Fort Leavenworth, Kansas.

Powe, Marc. "The Emergence of the War Department Intelligence Agency, 1885-1918." Thesis (M.A.), Kansas State University, 1975.

Rainey, James W. "The Training of the American Expeditionary Forces in World War I." Thesis (M.A.) Temple University, 1981.

Stone, Edwin S. "Training the First American Division for Combat in France, 1917-1918." Thesis (MMAS), Command and General Staff College, Fort Leavenworth, KS, 1977.