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THE ORIGINS OF OPERATIONAL INTELLIGENCE

A Monograph

by

Major Victor M. Rosello, Jr.
Military Intelligence



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School of Advanced Military Studies
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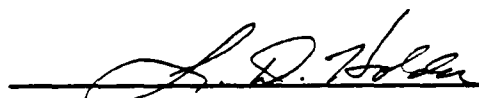
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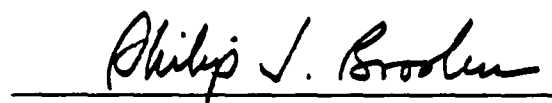
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ABSTRACT

THE ORIGINS OF OPERATIONAL INTELLIGENCE by Major Victor M. Rosello, Jr. USA, 48 pages.

This monograph examines the topic of operational intelligence from the standpoint of its historical development in support of operational level commanders. It focuses on two periods of military history and attempts to answer the question: what elements of operational intelligence developed during the Napoleonic wars and the American Civil War?

This paper has chosen these two specific historical eras to form the framework for discussion because they represent periods in which both revolutionary and evolutionary forms of warfare developed. Though this study does not attempt to settle the controversy over the origins of the operational level of war and its art form, it does identify those elements of intelligence that were created to support commanders during the respective wars. The discussion also benefits from the writings of Jomini and Clausewitz to further define the theoretical mindset of the period.

This study concludes that elements of operational intelligence were present in varying degrees during both periods of war. More importantly, the difficulties experienced during these periods by those called upon to develop intelligence services capable of supporting commanders at the operational level of war, serves as a reminder that the advent of new technologies in warfare and the development of innovative, evolutionary, or revolutionary forms of warfighting by our adversaries require that intelligence organizations keep pace with operational advances. Failure to do so could result in a repeat of intelligence organizational shortfalls similar in degree of those experienced during the two wars.

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I. INTRODUCTION

Various schools of thought exist regarding the roots of the operational level of war and the application of operational art. As an example, one common view posits that these concepts developed as a result of Napoleon's revolution in warfare. Another popular position views the maneuver of multiple field armies and the sequencing of operations during the American Civil War as the essence of the operational level of war and its art form. Evidence could support these as well as other viewpoints, since elements of the operational level can be exemplified through the selective use of historical case studies. With the intent of not creating additional controversy, this study accepts the theoretical premise that with his new style of warfare Napoleon established the rudiments of an operational level of war, while Grant refined the operational art form during the American Civil War. Since this topic warrants selective treatment of its own, this monograph will not further fuel the fires of controversy surrounding it.

The controversy, however, serves as a useful springboard for the development of an issue of more immediate interest to the intelligence community and a topic which has not been addressed adequately in past works. Specifically, what elements

of operational intelligence developed during the Napoleonic Wars and the American Civil War?

The method for this exercise will be simple. Major historical writings, selected periodicals, and articles from professional journals will be used as sources of intelligence systems and organizations during the two periods. The idea is to develop a clear picture of the intelligence states of art and the degree of sophistication within these separate systems. Once the intelligence systems are isolated, modern definitions and standards of operational intelligence (obtained from current intelligence and operations doctrinal manuals) will be applied to serve as a means of measuring the extent of operational development of the respective historical intelligence systems. Recognizing that this method of analysis will not be totally scientific or devoid of errors, anachronistic inequities, and subjectivity, it still serves a useful function as a catalyst for professional debate and academic discussion. Additionally, application and use of classical military writings to gauge the development of the military art and the profession of arms is a popular method within the military establishment today.

It is widely recognized that during the nineteenth century Clausewitz and Jomini developed many key

concepts of operational art based on their
interpretations of the Napoleonic experience: 1

In analyzing the Emperor's (Napoleon) unprecedented success, Clausewitz and Jomini both discerned a difference between his actions in battle and those which preceded and followed it. They believed that the designing of campaigns, the concentration of large forces prior to battle, and the techniques of exploiting tactical success differed enough from the conduct of battles to merit separate consideration. 2

Their works later influenced the development of military thought among European armies, as well as the American Army. As an example, the majority of US military leaders who fought during the Civil War were schooled from military theory which relied heavily on the influence of Jomini. For this reason a portion of this discussion will be devoted to the study of the thoughts and views on intelligence of these two great military thinkers.

II. DEFINING OPERATIONAL INTELLIGENCE

As stipulated by former foreign minister of Great Britain, Sir Edward Grey, "discussion without definition is impossible." Before undertaking any form of historical analysis it is, therefore, important to set the parameters which establish the foundational point of departure. The foundation for discussions within this paper is established by the terms: operational level of war, operational art, and operational intelligence.

A definition of the operational level of war is the first major building block toward developing any discussion on operational intelligence. For our purpose the latest definition which will be incorporated in the next revision of JCS Pub 1, Dictionary of Military and Associated Terms, will be used. It states that the operational level of war is:

The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives. 4

For the purpose of this study the definition of operational art as put forth by FM 100-5, Operations, will be used. It states:

Operational art is the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations. 5

Although there is a tendency to use the terms operational level of war and operational art interchangeably, the basic difference rests in understanding that operational art provides the creative content for the operational level of war. There are also unique actions or functions which exist at the operational level, while the operational art form itself "involves fundamental decisions about when and where to fight and whether to accept or decline battle. Its essence is the identification of the enemy's center of gravity." 6

Reduced to its essentials, operational art requires the commander to answer three questions:

- (1) What military conditions must be produced in the theater of war or operations to achieve the strategic goal?
- (2) What sequence of actions is most likely to produce that condition?
- (3) How should the resources of the force be applied to accomplish that sequence of actions? 7

Currently, the most complete definition and discussions of operational level intelligence are

found in FM 34-1, Intelligence and Electronic Warfare Operations. This manual does an admirable job in attempting to discern the nuances which exist between intelligence at the various levels of war (tactical, operational, and strategic). It also nicely ties in the role of operational intelligence to FM 100-5's definition of operational art and its identification of the enemy's operational center of gravity as being a key part of operational art.

Directly citing from FM 34-1, the current basis for the establishment of a modern standard for defining operational intelligence clearly begins to unfold:

An operational level of war intelligence perspective is necessary if the peacetime and wartime campaign planning objectives of the operational-level commander are to be realized. This is due to the demands on the strategic intelligence community and the focus of tactical intelligence. Operational level of war intelligence is defined as that intelligence which is required for the planning and conduct of campaigns within a theater of war. At the operational level of war, intelligence concentrates on the collection, identification, location, and analysis of strategic and operational centers of gravity. If successfully attacked, they will achieve friendly political and military-strategic objectives within a theater of war . . . Operational level of war intelligence focuses on the intelligence requirements of theater, army group, field army, or corps commanders. 8

To summarize, FM 34-1's definition of operational intelligence is in concert with both FM 100-5's

definition of operational art and JCS Pub 1's definition of the operational level of war. In essence, operational intelligence supports campaigns and major operations by focusing on the identification of the enemy's operational center of gravity. Thus, this becomes the first foundational pillar for the establishment of a discussional framework of this paper.

The second foundational base is a listing of the intelligence tasks which are to be performed at the operational level of war. Again according to FM 34-1 these are: Situation Development, Target Development, Electronic Warfare, Security and Deception, and Indications and Warning.

Situation Development is classified as those functions dealing with theater area evaluation and analysis (political, economical, geographical, etc.). Target Development is the identification of targets that lead to the defeat of centers of gravity. Electronic Warfare at the operational level interfaces with other combat systems as a force multiplier. Security and Deception are integrated into campaign planning as OPSEC and formal deception plans. Finally, Indications and Warning allow staffs to monitor changes in the politico-military and diplomatic situation of adversaries' countries.

These components of operational intelligence together with the previous definition, thus become the model for an evaluation of the historical examples provided by the Napoleonic period and the American Civil War. For obvious reasons, one of the functions, Electronic Warfare, cannot be applied to the early historical periods. However, a function of Electronic Warfare, Electronic Support Measures, can be applied if allowed to be interpreted as the intercept of telegraph or heliograph messages during the earlier historical periods. ¹¹ By allowing this slight stretching of the definition, modern standards can be applied in a useful manner.

In keeping with the School of Advanced Military Studies' custom of beginning discussions by initially examining Clausewitzian or Jominian thoughts on a topic this discussion will begin its examination of intelligence during the Napoleonic period with a look at their views.

III. JOMINI ON INTELLIGENCE

Jomini, who actually served under Napoleon, had a better appreciation for Napoleon's use of intelligence. He would argue that the role of intelligence 'is one of the chief causes of the great difference between theory and the practice of war'. 12

Jay Luvaas

The Swiss military writer, Baron Antoine-Henri Jomini (1779-1869), firmly believed in the merits of intelligence. Like most of his treatment of the subject of war, he attempted to reduce intelligence to a science which was prescriptive in its form and technique. In contrast to Clausewitz, Jomini attempted to abstract war from its political and social context by describing it in terms of rules or principles. To his credit, his writings have endured and are still studied and discussed today.

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Jomini's treatment of intelligence was limited to one subsection under the chapter heading of "Logistics." Although brief in nature, his discussion of intelligence is a progressive outlook that clearly and accurately assesses the important role of intelligence and the intelligence sources available to the commander. It is important to recognize, however, that Jomini never used the word 'intelligence' in his writings. His writings described information of the enemy's movements and

operations. This distinction will be addressed in more detail later in the study.

Recognizing the shortfalls as well as the advantages of intelligence, Jomini was sufficiently astute to know that despite difficulties and the almost impossible task of eliminating fog, intelligence has to be acquired to increase the commander's success on the battlefield:

One of the surest ways of forming good combinations in war would be to order movements only after obtaining perfect information of the enemy's proceedings . . . I should have a much higher regard for the man who could form sound conclusions as to the movements of the enemy than for him who could make a grand display of theories14

In recognizing that not all intelligence was reliable, Jomini emphasizes the need to use multi-source information systems, in a sense making him a progenitor of all-source intelligence:

A general should neglect no means of gaining information of the enemy's movements, and, for this purpose, should make use of reconnaissances, spies, bodies of light troops commanded by capable officers, signals, and questioning deserters and prisoners . . . Perfect reliance should be placed on none of these means. 15

Jomini also notes that intelligence systems alone did not hold the key to success. Good intelligence analysis has to occur so that the information can be used to form "hypotheses of probabilities;" something

akin to modern predictive intelligence or Intelligence

Preparation of the Battlefield:

As it is impossible to obtain exact information by the methods mentioned, a general should never move without arranging several courses of action for himself, based upon probable hypotheses that the relative situation of the armies enables him to make, and never losing sight of the principles of the art. 16

Although intelligence systems enables the commander to pierce some of the fog of war, Jomini understood that Napoleon's revolution in warfare (the organization of the Army into self-contained, mission-oriented corps size-units and a command and control system to orchestrate it) created new problems which complicated the ways in which traditional intelligence organizations operated: 17

When armies camped in tents and in a single mass, information of the enemy's operations was certain, because reconnoitering parties could be thrown forward in sight of the camps, and the spies could report accurately their movements; but with the existing organization into corps d'armee which either canton or bivouac, it is very difficult to learn any thing about them. 18

This indicates that Jomini recognized that a new level of intelligence was needed to effectively support Napoleon's revolution in warfare. The complexities of the new form of warfare demanded an orchestration of intelligence to fulfill the new demands dictated by the new battlefield.

IV. CLAUSEWITZ ON INTELLIGENCE

If we accept Clausewitz's definition of 'intelligence' -- 'every sort of information about the enemy and his country' that serves as the basis 'of our own plans and operations' -- then it is difficult to avoid the conclusion that Napoleon was well served by his ambassadors, his roving general aides, his chief of intelligence and the infamous Black Cabinet. In asserting that 'most intelligence is false', Clausewitz reveals only that he was ignorant of this dimension of Napoleon's generalship. 19

Jay Luvaas

It may come as a surprise to those who read Carl von Clausewitz's (1780-1831) On War that the great Prussian writer did not regard 'intelligence' highly.

With the renewed popularity that he has recently experienced, it is worth examining his views closely to develop an understanding of what factors may have influenced Clausewitz's distrust of intelligence.

Previous treatment of Clausewitzian thought on intelligence emphasizes the pessimism inherent in Clausewitz's notion of intelligence and the firm conviction expressed in statements such as the most blatantly critical: "Many intelligence reports in war are contradictory; even more are false, and most are uncertain . . . In short, most intelligence is false

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. . . "

Being more philosophical in his treatment of warfare, Clausewitz's views are generally

attributed to the imponderables of fog, friction, and chance in war and their effects on the reliability of information, along with other factors generally resulting from the limitations of intelligence analysis and the collection process. ²¹ Though Clausewitz's observations are valid if we are willing to accept that uncertainties are always present in any intelligence system or activity, many within the intelligence community may still take issue or offense with his treatment of intelligence.

An extensive amount of Clausewitz's writings in On War was based on personal observation and "an examination of the five wars in which he had served." ²² It is quite likely that his perceptions on the value of intelligence also evolved from actual combat experience. Unfortunately, his first exposure to Napoleonic battle, while serving as adjutant of a Prussian infantry battalion, resulted in the greatest defeat of the Prussian Army at the hands of Napoleon. The Battle of Auerstadt in 1806 and the subsequent pursuit by Napoleon's Army which caused the rout of the Prussian forces, left an indelible impression on the young Carl, particularly since the Prussian debacle resulted in Clausewitz's humiliating capture and imprisonment by the French. Compounding defeat was the failure of Prussian intelligence to quickly assess the

situation which developed as the advancing movement of Napoleon's Grand Arme'e converged seven corps on the defending Prussians. Notwithstanding that Prussian cavalry units were assigned the mission of reconnoitering a still undeveloped situation, the order for their departure was transmitted late.

"There was no way of knowing what was happening; reports from the front were muddled and contradictory." Coupled with many other factors, including indecision and problems of command within the Prussian organization, Clausewitz would never forget the consequences associated with Auerstadt.

The sad state of Prussian readiness, however, was only one side of the problem. An important factor which served to enhance the notions of chance, and uncertainty in the mind of Clausewitz was the nature of the enemy opposing him: the great Napoleon Bonaparte. Of the many accolades bestowed on Napoleon, one more stands out, master of deception and operations security:

Napoleon's strategic deployments were carefully planned to set the stage for the great and decisive battle. Even before hostilities had begun, the Emperor's intentions were carefully shrouded from the enemy. Newspapers were censored, borders closed, travellers detained. Then, when the Grand

Army moved, its advance was preceded by swarms of light cavalry, screening its line of advance,

protecting its communications, and gathering 26
intelligence about the location of the enemy . . .

At the same time, elaborate deception schemes and secondary offensives would be devised and implemented to confuse the foe and place him off balance. All those common characteristics of twentieth-century military security were employed by Napoleon at the beginning of the nineteenth. 27

Efforts made by the opposing side to penetrate the fog of war proved inadequate. The deception plans and the priority given to operations security by Napoleon quite simply overwhelmed the existing and limited intelligence resources:

. . . in the interests of security and deception, Napoleon was in the habit of continually altering the composition of his major formations . . . adding a division here, taking away a brigade there 28

Even if . . . intelligence [of Napoleon's dispositions] was eventually discovered and digested by the enemy it was soon completely out of date . . . Thus at no time could the foe rely on "accurate" information concerning the strength of their opponents or the placing of their units. 29

Briefly putting aside the historical context of this discussion, an interesting question develops over the issue of "intelligence" versus "information." Although to the casual observer this point may appear irrelevant, members of the intelligence community today are quick to recognize that this distinction is indeed important. Current and past military manuals clearly distinguish these differences:

Information is unevaluated material of every description including that derived from observation, communications, reports, rumors, imagery, and other sources from which intelligence is produced. Information itself may be true or false, accurate or inaccurate, confirmed or unconfirmed, pertinent or impertinent, positive or negative. "Intelligence" is the product resulting from the collection, evaluation, and interpretation of information 30

Put in its proper historical context, by modern standards Clausewitz made reference to raw information and field reports in On War. Theoretically, it can be argued that because of the virtually uninstituted and haphazard nature of intelligence methods of the Napoleonic era, Clausewitz never witnessed the production of intelligence. From an intelligence standpoint, the uncollated information placed into the hands of a Napoleon or a Wellington for decision was not intelligence. With operational as well as intelligence issues to ponder, it is no wonder that battlefield information added to the confusion and uncertainty of battle faced by commanders. For Clausewitz, contradiction, chance, and uncertainty were the hallmarks of battlefield information and, rightfully so.

Intelligence or information? The issue may never be settled.

V. NAPOLEONIC INTELLIGENCE ORGANIZATIONS

All in all French staff work comprised a weak link in the French military machine, and no small part of Napoleon's cataclysm can be laid at its door.³¹

David G. Chandler

By modern standards, formal intelligence organizations did not exist during the Napoleonic era.³² The general staff of the Prussian Army, well known to Clausewitz, was exceptionally small and was limited to approximately two dozen officers.³³ With staff officers at a premium, neither the term, 'intelligence,' nor even the formal identification of intelligence officers was nonexistent.³⁴ In most cases it was the supreme commander who acted as the overall intelligence analyst for the field army, choosing and discarding information as he saw fit. This rudimentary form of operation was not limited to the Prussians, but appears also to have been characteristic of Napoleonic armies.

Napoleon's intelligence service is regarded one of the most effective of his era. Using Napoleon's staff organization as an example, it is evident that, although advanced for the period, the French staff sections responsible for gathering information lacked sophistication, method, and standardization. Despite the fact that Napoleonic era intelligence

was not up to modern standards, rudimentary elements of operational intelligence were present within the force structure. Interestingly enough, Napoleon, more than any other commander of his time, created an intelligence organization which provided limited support in what today is referred to as the operational level of war. Using the components of the FM 34-1's definition of operational intelligence, it is clear that Napoleon's intelligence structure allowed him to plan and conduct his campaigns within the various theaters of war. His use of intelligence focused on the identification and location of his enemy's center of gravity, or as Clausewitz would acknowledge, the mass of the enemy's army.

Four of the five intelligence tasks performed at the operational level were also present. Napoleon's emphasis on Security and Deception have already been discussed previously. Situation Development, Target Development, and Indications and Warning at the operational level were areas which Napoleon also excelled in. These will now be addressed.

Due to regular changes in Napoleon's headquarters organization, many variations of the basic organization evolved. It is generally accepted, however, that from 1805 on, Imperial Headquarters was composed of three parts: the Emperor's Maison, a General Staff, and an

Administrative Headquarters.

Of interest to this discussion is the location of those sections tasked with information gathering. This function was directed by two staff sections: the Statistical (Intelligence) Bureau, forming part of the Maison, and the General Staff.

The intelligence task of Indications and Warning was provided by the Statistical Bureau. An intelligence function of the Statistical Bureau was to obtain information at the strategic level for use by tactical units. Its missions were wide ranging:

Reporting directly to Napoleon, the Statistical Bureau obtained long-range strategic enemy intelligence (does the emperor of Austria intend to go to war? If so, what will the king of Prussia do?). It was normally led by one of the emperor's senior adjutant generals--Savary in 1805-1809, Bignon in 1812, d'Ideville in 1813. To obtain the information that was required, almost as many means were employed then as today: newspapers were systematically collected and translated, spies and agents were planted in every important city and used the imperial mail service for forwarding coded messages. 36

The intelligence tasks of Situation Development and Target Development were handled by the General Staff. Observation reports from the corps' cavalry patrols and interrogation reports obtained from enemy deserters and prisoners of war were passed to Napoleon through this section. Although this information was tactical in nature, it was useful for verifying

Napoleon's operational assessment.

Additionally, Napoleon supplemented information from the General Staff by incorporating special staff officers for missions he specifically assigned. ³⁷ Officiers d'ordonance gathered topographical information on roads, bridges, and fortresses. Information of a geographical nature would also be given to the Topographical Bureau so that maps could be updated. This was an early form of Situation Development and Intelligence Preparation of the Battlefield.

Although the potential for an all source intelligence structure was present, from a modern standpoint, Napoleon's system was severely handicapped. For one, the various sections operated independently so that collection was not coordinated between them. Secondly, there was no central analytical center receiving the raw data. Napoleon chose to fulfill this position himself, thereby preventing a methodical and analytical effort fully dedicated to collecting, evaluating, interpreting, and transforming raw information into intelligence. This mode of operation ensured more timely actions by eliminating unnecessary layers of administrative staff work, but it also compounded decision making based on incorrect ³⁸ assessments of the enemy situation.

Of note, Napoleon's rival at Waterloo, the Duke of Wellington, used a similar system during his earlier years, but by the latter stages of the war allowed his intelligence department, the Quartermaster General, the latitude of handling most of these functions. Like Napoleon, Wellington was his own intelligence officer:

. . . all intelligence came to Wellington and . . . the appraisal of it was his and his alone It is not surprising that all reports of enemy movements, no matter what source they came from, whether from the outposts, the divisional or allied commanders, or officers on detached service and the rest, were brought to him as well. Nor do these reports appear to have been summarized, abstracted or collected before they reached him, but were taken before him as they stood. What collating was done was almost certainly done by himself . . . 40

In conclusion, the fundamental weaknesses of Napoleonic intelligence functions are twofold. On one hand there was a failure to establish intelligence as a formal discipline. On the other hand there was a failure to create intelligence staffs at unit levels, exclusively dedicated to the collection, collation, and analysis of information. War during the age of Napoleon had become too complicated for a single commander to cope with the added influx of combat information. Like the nations and armies which fell to Napoleon's revolutionary warfighting methods, the intelligence organizations of the era could not keep pace with the changed nature of war.

VI. AMERICAN CIVIL WAR INTELLIGENCE ORGANIZATIONS

It is common belief that more has been written about the American Civil War than any other war in US history. Volumes of material are available on numerous subjects dealing with the leadership styles of the various commanders, descriptions of battles and campaigns, as well as insights on the Civil War's contributions to the evolution of warfare. Unfortunately, very little is available regarding the intelligence organizations of the North and South.⁴¹ Exhaustive researching of the subject points to several reasons for this.

For one, "no established intelligence services or provost marshal organizations existed at the outbreak of hostilities."⁴² During the ensuing years of conflict the North and South attempted to establish credible intelligence systems to stop gap the obvious deficiency existing in the respective armies.

Secondly, with one exception (which will be discussed later) during the Civil War both sides failed to develop intelligence organizations which effectively grappled with the dynamic multi-source requirements needed by tactical and operational level commanders. These new requirements had already been dictated by the revolution in warfare of the Napoleonic Wars and had been noted by writers like Jomini. Other than the fact

that neither side ever envisioned waging war at the grand scale of which they ultimately did, there is no logical reason why the role of intelligence had such a low priority of development. Sources were not a problem and ultimately many were available to form somewhat viable intelligence services:

Spies and scouts, cavalry, patrols, pickets, outposts, reconnaissance including reconnaissance in force, observation from fixed points, signal stations, and balloons, enemy newspapers, intercepting and deciphering enemy messages, captured documents and private letters, informers, friendly civilians, and topographical engineers . . . 43

Besides the question of the doubtful nature or varying degrees of quality of useful intelligence provided by many of these sources, the most important element missing was the orchestration of the various intelligence sources. In essence each commander employed his own makeshift sources in an ad hoc fashion without a standardization of effort. What information is available of Civil War intelligence paints a dismal state of affairs.

In light of Jomini's accurate portrayal of intelligence sources and the need for commanders to consider all of them, it is difficult to explain why this was the case. Jomini had a great influence in the development of strategies and tactics used during the Civil War:

American officers followed Jomini rather than Clausewitz and our understanding of the operational level of war showed Jomini's influence even in the middle of this century 44

General Henry Halleck, American chief of staff in the Civil War, was greatly impressed by Jomini's The Art of War. In 1846 he wrote Military Art and Science which drew heavily from Jomini. Lines of operations, bases of operations, theaters of operation all found their way into American strategy. 45

Ironically, Civil War intelligence appears to better fit Clausewitz's pessimistic attitudes regarding the inability of intelligence to penetrate the fog of war, than the more progressive Jominian views on the topic. One thing that Civil War intelligence did have in common with both writers, however, was the inability of both sides to translate information on the enemy as a formal military activity. During the 1860's the term intelligence continued to be synonymous with information. It was not until about thirty years later that intelligence would become part of the US
46
military's lexicon. The organizational beginnings of a formal US intelligence organization can be traced to 1885 with the founding of US War Department intelligence, three years after the founding of the
47
Office of Naval Intelligence.

The question still begging an answer is why Jominian thought failed to influence the development of Civil War intelligence? With the general focus of this

study, it is impossible to establish a cause and effect link of this kind in justifying the shortfalls inherent in the development of Civil War intelligence organizations, particularly without an abundance of research material. One possibility is that Jominian methods even if applied were incapable of providing support at the operational level, as in the case of Jominian logistics. What is clear, however, is that intelligence organizational shortfalls were endemic throughout both armies and with the problem filtering down from the top rung of each armies' organizational ladders.

Rather than copy the efficient French and Prussian staff systems of the eighteenth and nineteenth centuries, the staff systems which existed or developed during the Civil War were products based on British⁴⁸ traditions. Both the North and the South duplicated identical systems whose roots could be traced to the American Revolutionary War. At the national level there was no general staff, but what was created was a melding of general and special staffs which included the basic positions of quartermaster general, commissary general, adjutant general, and the chiefs of ordnance and engineers. These staffs were characterized⁴⁹ by a general lack of coordination.

The staffs which developed at field army level

varied from one to another depending on the number of aides chosen for service by the respective commanders. Throughout the war both sides attempted to better their respective staffs, but most changes which occurred only at army level never survived the war. At regimental level more standardization was evidenced:

In 1861 each infantry regimental headquarters consisted of one colonel (the commander), one lieutenant colonel, one major, one adjutant (a personnel officer, usually a captain), one quartermaster, one surgeon, one assistant surgeon, and one chaplain. 50

What is painfully evident here is the absence of a staff section exclusively devoted to intelligence at all levels:

The Union's informal general staff . . . differed from its modern American counterpart in the importance of the quartermaster general and the intermingling of operations, intelligence, and logistics, almost in a single unit [under the quartermaster general staff]. In the French staff model used in the U.S. Army today, these are discrete sections, G-3, G-2, and G-1. 52

From the outset there was a general emphasis on logistics and the importance of the quartermaster in supplying and moving armies. Transportation, road construction and repair, and the filling of requisitions appears to have driven the staff planning effort at the expense of operations and intelligence. This lack of interest in intelligence matters at the

staff level directly affected the organization and the operations of the intelligence systems. Little wonder that intelligence had such a poor showing during the Civil War.

Although there was a general emphasis on logistics, this did not ensure the quality of the product. One case in point is that of the topographic services which had a definite bearing on the production of intelligence. As a result of neglect in the development of the topographic branch, accurate maps throughout the campaigns were generally unavailable:

The Union made more topographical progress than the Confederacy, but its was slow. Grant, much less familiar with northern Virginia at the commencement of his 1864 campaign than Lee, sorely needed better maps . . . It seems clear that throughout the conflict most commanders worked with poor maps, were deficient in knowledge of their own terrain, and knew much less about enemy territory . . . if Federal maps of Union territory were deficient, those of the Confederacy were no better. Robert E. Lee frequently used primitive maps. 54

What filled the vacuum left by the lack of formal intelligence organizations was a loose network of secret service and espionage organizations which attempted to provide some strategic and operational information which today can be classified under the IEW task category of Indications and Warning:

The product of this lack of system on each side was a conglomerate of intelligence (not by modern

standards], counterintelligence, and military police activities, uncoordinated to a high degree, occasionally even working at cross purposes. Effective intelligence and counterintelligence services developed in several commands, but nothing resembling a unified national system existed. 55

The information provided by these networks at times proved critical and was of operational value, such as the advanced warning Lee had at the outset of the Second Bull Run campaign that McClellan's army was departing the Virginia Peninsula to join with Pope.⁵⁶ However, the successes were few because of a lack of national level orchestration of a system that relied almost exclusively on free lancers and amateurs to fulfill the intelligence role.

One of the most over-rated intelligence "systems" of the Civil War was espionage. The records from thousands of dispatches, reports, and orders do not bear out its alledged importance nor a high level of important intelligence having being produced via this means.⁵⁷ The preponderance of stories about spies operating on both sides now appears to have come from nineteen published autobiographical narratives written by former spies who described their exploits in a romantic style which at times bordered on fiction.⁵⁸

A secret service organization which is often used as an example of Civil War intelligence are the Pinkerton detectives who worked for General George B.

McClellan during 1861-1862. Opinions on the effectiveness of Allan Pinkerton's organization generally vary, but fall somewhere between inadequate to poor. As an intelligence organization its sorry performance is never refuted. Where Pinkerton did make a contribution to the North's effort was in the area of counterintelligence. This was achieved by the scoring of some successes in the neutralization of Confederate spy rings and the tightening of security in the northern Capitol. These successes, however, were not exclusively a product of Pinkerton's operations but a joint effort with the relatively efficient provost marshal general's branch.

As a flash-back to the Napoleonic period, research indicates that by and large cavalry played the most active role and contributed the most to the acquisition of combat intelligence during the Civil War. It is often noted that during the Civil War the value of cavalry as an intelligence service was even greater than its value as a combat arm. Throughout the campaigns both sides relied heavily on cavalry reconnaissance as a means of procuring information of enemy activities. For many reasons most experts agree that the southern cavalry had an edge over the Union's.

More important than this, and as a side note, like Napoleon, General Lee had a much clearer perception of

enemy intentions and manifested a timely vision that bordered on Clausewitzian genius. Genius contributed in part to offsetting the relative lack of quality of intelligence available because like his Union counterparts, the South's intelligence was also "notably deficient in centralized control and effective coordination."⁶³

With the exception of Gettysburg the exploits of Confederate General J.E.B. Stuart serve as an example of the quality of the South's cavalry intelligence capability. However, several Union officers had also distinguished themselves for their reliable reporting and intelligence consciousness. General's John Buford and Philip Sheridan come to mind as two of the finer examples.⁶⁴ Although better and more dependable than other intelligence sources, cavalry alone still did not entirely fulfill the operational level intelligence requirements needed to wage successful army campaigns. Despite its limitations, its tactical and operational usefulness was exploited and did contribute to overall intelligence support at both the operational and tactical levels.

The state of intelligence organizations described, thus far, does not paint a very positive picture of Civil War intelligence. It is worth noting, though, that these accounts describe only the general state of

affairs of the intelligence organizations during the early developmental period.

In the course of the war, however, organizations and procedures developed, and well before Appomattox the Army of the Potomac possessed a relatively sophisticated and surprisingly efficient intelligence service. 65

As in most generalizations the exceptions are often overlooked. One exception to the norm was the creation of a comparatively unknown body that more closely resembled a modern army level intelligence staff operating with all-source intelligence as prescribed by Jomini. Created by General Marsena R. Patrick, Provost Marshal General under General Joseph Hooker, The Bureau of Military Information earned the title of . . . "the most highly developed intelligence service of the war." 66 The Bureau was created when Hooker took over command of the Army of the Potomac in January 1863 and realized that in his headquarters no enemy order of battle existed which portrayed the enemy forces to his front. 67

In the creation of the Bureau, Patrick's most important innovation was in the most deficient area of Civil War intelligence, namely coordination of intelligence services. The Bureau was headed by Patrick's deputy, Colonel George H. Sharpe, and concentrated its total effort primarily on the

production of combat intelligence at army level:

This capable officer not only organized his various collection means in a favorable manner to carry out the assigned intelligence mission but also developed a headquarters staff group which actually functioned as a centralized intelligence agency in the field. For the first time, therefore, the command could receive intelligence that had been carefully weighed and processed by experienced personnel who were presumably aware of all available information on the particular subject at hand. 68

All available sources were exploited:

. . . civilian spies, scouts, and guides . . . enemy newspapers, letters, official communications or other "articles" coming within the lines of the army . . . When coupled with more aggressive reconnaissance work by cavalry, a strengthening of the signal service, and a greatly increased use of . . . three observation balloons, the new bureau was able to provide Hooker with far better information about Lee's strength and dispositions than either Burnside or McClellan had received 69

The effectiveness of this coordinated all-source intelligence effort:

. . . made possible . . . [Hooker's] unexampled march to Lee's rear at Chancellorsville, it provided critical information in the Gettysburg campaign that has always been credited to other sources, and it performed with similar effectiveness under Grant when he came East. Its reputation spread until it began to get requests for information from other theaters. 70

As the intelligence organization of the Army of the Potomac, the Bureau of Military Information fulfilled the operational intelligence requirement of

providing intelligence in support of the planning and conduct of campaigns within the theaters of operations. Based on its unique and improved use of multi-source intelligence the focus on Lee's Army appeared to have never been lost, implying that it was concerned with the identification of strategic and operational centers of gravity. General Grant, for one, was a strong advocate of the need to focus and destroy Lee's Army of Northern Virginia and during the period that the Bureau supported him this focus by the intelligence staff probably never deviated.

The intelligence products from the Bureau which most closely fall into the category of intelligence tasks at the operational level were those of Situation Development, Target Development, and Indications and Warning. Although not discussed previously, as Provost Marshals, Patrick and Sharpe also performed useful counterintelligence, leading Lee to report to Jefferson Davis in the spring of 1863 that "I have no means of ascertaining the truth . . . " when he attempted to penetrate Hooker's screen. The intelligence task of Security and Deception was also a forte of the Bureau. A rudimentary form of electronic eavesdropping by the Bureau's agents was also recorded through the use of wire tap intercepts.

VII. CONCLUSIONS

The revolution in warfare generated by the Napoleonic era and the evolution in modern warfare which characterized the American Civil War established new criteria for the production of intelligence on the battlefield. In some cases the changes on the battlefield were due to technological innovations, as well as refinements in strategy and tactics. These created new demands and overtaxed intelligence services which in most cases were already outdated by the time the conflicts began, resulting in difficulties in keeping pace with the changing nature of war.

From the standpoint of staff organization, Napoleon's Imperial Headquarters, showed the most promise and reflected the roots of a functional intelligence staff. The creation of the Statistical Bureau and the General Staff Intelligence section was significant because it highlighted Napoleon's recognition of the usefulness and requirement for multi-source intelligence. Napoleon's intelligence organization was organized to produce strategic through tactical level intelligence. The production of operational level intelligence was focused on identifying his opponent's centers of gravity, allowing Napoleon to concentrate his separate corps at the critical time and place.

From the standpoint of execution, however, Napoleon's system had serious shortfalls. No officer was responsible for orchestrating the intelligence effort, resulting in uncoordinated intelligence production. Since Napoleon chose to be his own intelligence analyst, the fusing of multi-source intelligence was left to him. In pre-Napoleonic warfare, intelligence analysis of the enemy could be easily handled by the commander. With the expansion of the battlefield and the dispersion of diverse forces, however, entirely too much was occurring on the battlefield for one man to handle. Napoleon's fatal mistake was the failure to recognize that once his opponents adopted Napoleonic tactics and adapted to the dynamics of the new warfare, the complexities of following the battle also changed for Napoleon. Clausewitz's fog of war could be multiplied by the use of cavalry screens and elaborate deception plans. The identification of one element of the enemy no longer guaranteed that the entire enemy army had been located. Of the many reasons for Napoleon's downfall, the stagnation of the Imperial staff and the inefficiency of the intelligence effort should be included among the more important influencing factors. To wage a new warfare which incorporated the roots of what was to become the operational level of war

required the creation of operational level intelligence to effectively support the campaigns. Napoleon's intelligence system provided that support, but not dependably, consistently, and most of all, throughout the duration of his first through his last campaigns.

The armies in the American Civil War lacked staff organizations capable of handling the multitude of intelligence sources available during the period. The adoption of a general staff organization which focused on quartermaster duties and logistics further contributed to the demise of an already antiquated, if non-existent, intelligence branch. In the earlier years, intelligence sources did manage to stop gap the intelligence needs of the commanders by achieving a few successes, but certainly nothing that represented an organized and cohesive intelligence organization. Generally speaking, because of limited intelligence capabilities and the deprivation of a national level intelligence organization that set the standards for intelligence staffs at army level and below, commanders fought relatively in the blind through the course of the war.

The breakthrough appears to have occurred with the creation of the Bureau of Military Information under the command of Union General Joseph Hooker. This was the most significant advancement in the field of

intelligence because for the first time one organization was charged with the responsibility of collecting and analyzing all-source intelligence for the commander. The orchestration of multi-sources had come of age. With this development operational level intelligence could now serve the needs of the Army of the Potomac and later Grant's conduct of the war. The success of the Bureau came with its focusing on the operational center of gravity of the South, Lee's Army of Northern Virginia.

The lesson from the study of these two historical periods is clear. The advent of new technologies in warfare and the development of innovative, evolutionary, or revolutionary forms of warfighting require that the intelligence organizations keep pace with advances. This necessitates the close monitoring of changes in doctrine and technologies of potential adversaries. For example, the incorporation of stealth or "star wars" technologies will create new doctrinal changes for the armies of the future battlefield. As in the two historical periods studied, this would place new demands on the intelligence organizations tasked with supporting the commander. Changes in doctrine could be as revolutionary as those of Napoleon or they could evolve over time as in the Civil War.

The development of a low intensity conflict

doctrine for the Army serves to illustrate an evolutionary change in our focus and warfighting skills. Questions raised regarding the ability of today's Army to effectively engage in these diverse forms of limited warfare also raise questions as to the ability of the organic intelligence organizations to provide support. The fact that capabilities and doctrines are still being debated raises the risk of the US being caught unprepared during these critical developmental years. The tasks are difficult because the tendency is for the intelligence establishment to modify its support as changes occur in the development of US operational doctrine.

Finally, as changes occur the effects are felt through all levels of warfighting. Changes then impose new training requirements on the intelligence organizations and capabilities at strategic to tactical levels.

Intelligence today is far from being a perfect science that is no more capable of totally eliminating uncertainty and chance than during the age of Clausewitz. Perfect or not, it continues to fulfill a necessary function in support of the combat arms. That function serves to "minimize uncertainty concerning the effects of . . . [the enemy's] capabilities . . . , his vulnerabilities . . . , and the environment."⁷²

Minimizing uncertainty is an acceptable and viable standard for the intelligence community to pursue and is one which does not deny, but fully recognizes that the Clausewitzian notions of chance, friction, and the fog of war are still very much a part of modern warfare. However, new technologies and doctrines serve one major purpose. To improve the warfighting capability of an organization. With these improvements Clausewitz's uncertainty and chance increase for the intelligence organizations of the opposing side. It is imperative that we not be the opposing side.

ENDNOTES

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