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Arme Blanche and Revolver: The French-Austrian School of War, The Frontier and the United States Cavalry

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AN ARMY IN SEARCH OF A MISSION
THE U.S. ARMY TO THE CIVIL WAR

ARME BLANCHE AND REVOLVER:
THE FRENCH-AUSTRIAN SCHOOL OF WAR,
THE FRONTIER AND THE UNITED STATES CAVALRY

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Chapter I

DEFEAT AND REFORM: THE UNITED STATES ARMY AND THE ADOPTION OF THE FRENCH-AUSTRIAN SCHOOL OF WAR

Part I

For some forty years prior to the Civil War, the United States Army prepared itself for the task of successfully waging a European-style war. The humiliating War of 1812 provided the stimulus for a complete realignment of American military doctrine and practice along the lines of the prevailing French-Austrian school of post-Napoleonic warfare. Official American military policy in these years stressed the need for scientific, mathematically precise strategical and tactical theory, for a rededication to conservative political and social values and an emphasis upon traditional aristocratic warrior ethics. For these same forty or so years the Army was compelled by its political masters in Congress and in the executive branch to devote itself to the dirty and occasionally dishonorable task of Indian control and frontier security duty. Yet, the American Army of the European, French-Austrian school of war, remained virtually unaltered or affected by the protracted experience of frontier security duty. The pro-

nounced gulf between these two quite different yet nonetheless connected spheres of the Antebellum American Army is the subject of this investigation.

The War of 1812 exposed deep, crippling failures of ordnance, strategy and tactics, administration, logistics and, most appalling, leadership or as Secretary of War Lewis puts it:

...notwithstanding the lessons left by the revolution, we entered the War of 1812 in a state of extreme inefficiency with respect to all the administrative departments of the military service. An utter waste of millions was the consequence.¹

Civilian control of the Army, particularly the direct command of field operations by Secretary of War John Armstrong and the selection of senior officers personally by President James Madison, produced strident opposition from many younger military commanders. And the severe malperformance of the militia, particularly the galling failure of New York troops to support the invasion of Canada, further intensified the demands of regular officers for significant, comprehensive reform of the United States Army.²

One of the few gains for the United States from its humbling experience in the War of 1812, was the emergence of a new generation of professional officers to replace the superannuated veterans of the Revolutionary War. In the forefront of new vibrant Army leadership were such influential officers as Edmund P. Gaines, Winfield Scott, Jacob Brown and Alexander Macomb. All were under forty

years of age; all had risen to prominence during the course of the War of 1812, not one having entered the service prior to 1808.³ Moreover, the Army was truly their home, in that they were largely rootless insofar as ties to civil society were concerned. While by no means uniform in their principles of military science, these officers, nevertheless, were in substantial agreement as to the need for a complete and exhaustive reorganization and redefinition of the Army's role in national defense. The administration of President Monroe and his extraordinarily effective Secretary of War, John C. Calhoun, provided both a forum for the articulation and implementation of new concepts of military science as well as invaluable political support in navigating war legislation through a hostile and unreceptive Congress.⁴

The model upon which Army reform was to be based was that of post-Napoleonic, Bourbon France, then the center of military science. Certainly there was nothing in the brief history of American arms from which to develop an indigenous model of Army organization and doctrine. The pre-War of 1812 Army had been a small, ill-defined and ill-funded, desultory and even dishonorable military force. The regular Army was created essentially as an afterthought to the demobilization of the Continental Army. Thus, on June 2, 1784, Congress created a tiny eighty soldier force to guard the two United States arsenals.⁵ From that date on, through the War of 1812, the American Army resembled an accordion,

as Congress enlarged and then just as suddenly decreased its strength as crises, real or imagined, came and went. In the 1790s, for example, as war loomed with France and as Indian problems escalated along the Old Northwest Frontier, Congress feverishly expanded Army strength to over three thousand men, a nearly two hundred percent increase. Yet when the threat of war evaporated or when Indian problems faded, Congress promptly implemented severe reductions of the Army as in the 1802 Peace Act.⁶

The pre-War of 1812 Army had labored thanklessly in the absence of any precise definition of its role in national war policy. It sometimes had been given responsibility for frontier security and on occasion it had been given a role in the defense against prospective foreign adversaries. But its exact mission remained at best a mystery, its reason for existence being confused and contorted by the recurrent shifts in Congressional interest toward the Army. Furthermore, little of note had been achieved by the early Army in its few consequential military actions. From General Arthur St. Clair's massacre in 1795 through the demeaning experience of the War of 1812, in which the United States had only succeeded in eking out a draw with Great Britain, the tradition of the American Army was largely bereft of triumph.⁷ The earlier American military model, that of the Royal Army, while in many respects still embedded in the matrix of the Army's organization and customs, was, in the years after

Napoleon, widely declared by progressive military thinkers to be obsolete and contrary to the latest advances in warfare.⁸ The Army had as well suffered previously from being a political football; in the 1790s the Federalists dominated the officers corps only to be undermined in their influence by the passage of President Thomas Jefferson's 1802 Peace Act, designed in part to create new positions for Democratic-Republican officers.⁹

For a small, fourth-rate military power, humiliated by recent defeat and the sacking of its capital, the choice of a model from which substantial reforms were to be derived was thus obvious. The United States Army adopted wholesale the methods of Bourbon France, the successor of Napoleon's Empire and the most successful and triumphant military power of the day. United States Army officers had even before 1815 laid the foundation for a long and beneficial association with the French school of war. During the Revolutionary War and afterwards, French military works had circulated widely among those Americans of a military bent; the early engineer corps was staffed almost exclusively with seconded or loaned French officers. The allure of French military prowess coupled with the dazzling color and elan of the Napoleonic armies, gripped the minds of officers on both sides of the Atlantic. General Winfield Scott was therefore dispatched, in 1815, by the War Department to visit the new

mecca of the art of war, to gather data on the reasons for the stunning French military achievements.¹⁰

The prism through which the new trans-Atlantic military doctrine was viewed, however, was not that of either the French Revolutionary Republic or the Empire. Rather it was the conservative backlash of the Congress of Vienna and the revival of the monarchy in Bourbon France which acted as filters, blocking out the more revolutionary and unsettling aspects of Napoleonic Warfare.¹¹ Only Prussia, due to a very different national reaction to Napoleon, developed a rival and quite dissimilar system of war fighting, one that would attract wide attention only after her crushing defeat of France in 1870. The United States, as with all other Western nations, studiously followed the lead of Bourbon France and Austria in revising and upgrading its system of war.¹² Thus as West Point professor Edward P. Mansfield put it so succinctly: "NAPOLEON of France may be regarded as strictly the Representative of modern [military] SCIENCE IN ACTION."¹³ William Duane, a major American writer on military subjects in the first decade of the Nineteenth Century, concurred fully with this position when he wrote in 1811: "the armies of France have exhibited an activity and an energy unexampled and unknown to the armies of other nations."¹⁴

The linchpin of post-Napoleonic warfare was the concept of officer professionalism. Officership, in the Sixteenth

and Seventeenth Centuries, by and large, had been a commercial trade, combining proven field success with acute business acumen. Due to the lack of substantial permanent military forces and as an alternative to the ineffective feudal levy, commercial officership and the employment of mercenary free companies became prevalent. Generals, therefore, had to sell their services to a prospective customer and in turn, raise the men and equipment to execute their employer's wishes. The distinct disadvantage of such commercial officers was that their loyalty all too often went no further than the size of their employer's purse. The profound intellectual and political reaction to the unrestrained, tartarean violence of the preceding Thirty Years War led, in the Eighteenth Century, to the emergence of centralized monarchial nation states. Concomitant with such political concentration of power was the imposition of a royal monopoly on the exercise of military power. Correspondingly, standing armies, as opposed to mere royal bodyguards, reappeared in Europe. Officership, in turn, became a function of social class. The aristocracy were literally dragooned into military service by the new absolute monarchs. Now these factious and fatuous aristocrats could safely exercise their militaristic tendencies only in the service of the state. Moreover, compulsory military service allowed the monarchy free access to the financial resources of these gentlemen and in turn bound

their fates with that of their lord. Such officers were very loyal, in terms of class identification. National origin, however, was of little import. Officers freely crossed borders in pursuit of military service and adventure. There was as well the emergence of a true community of officership; these men shared a common ethos of aristocratic social and warrior values and shared a common language, French.¹⁵

The gentleman officer was not a wholly satisfactory model of military leadership. While extolling the warrior ethos of honor, elan and courage, there were at best, only limited requirements for technical expertise in the arts of war. Only the small number of artillery and engineer officers received any form of technical instruction. They thus constituted the intellectual, though not the social elite of Eighteenth Century armies, due to the highly specialized nature of their branch of military service. Most officers received only the most cursory formal instruction in the art of war. Prussia and Russia, for example, established military academies, run as crack infantry battalions, coupled with an apprenticeship in the ranks to weed out the incompetent and the unfit. Warfare, however, save for the complexities of siegecraft, was not a terribly demanding intellectual activity in these years. Basically, for most officers, all that was required of them was to be able to memorize the drill book, to be capable of

moving their men forwards and backwards and to execute the assorted evolutions of the line. The battlefield and not the classroom dominated military education. Furthermore, the first systematic works on tactics only began to appear in the late 1720s and the first crude treatise on strategy in the 1790s. What few works there were of a truly military nature (as opposed to autobiographies or philosophical inquiries into the nature and limits of war) were dominated by the mathematically-centered treatises of the artillerists and the engineers. While the need for improvement in the standards of officership gradually became apparent over the course of the Eighteenth Century, no clear idea merged as to what form the remedy should take.¹⁶

The astonishing success of the French Revolutionary Armies compelled a rapid reconsideration of the principles of officership. As barefoot, badly armed and trained citizen soldiers led by former noncommissioned and junior officers of the Royal French Army swept aside the traditional forces of Austria, Prussia and Great Britain, the need for substantial change in the concept of military leadership became evident.¹⁷ The French-Austrian redefinition of officership was both progressive and traditional in nature. On the one hand it was innovative in seeking to create a professional corps of officers, formally educated in the science of war. Professionalism is generally considered to be composed of five essential

components: First, a systematic body of specialized knowledge transmitted to members by a formal education process; Second, a commitment to use professional knowledge for the benefit of society; Third, a sense of belonging to a unique group, distinct from the rest of society; Fourth, professionalism is characterized by a high level of self-government within the particular subculture, sanctioned by the larger society; Finally, a network of formal institutions and organizations concerned with the leadership and education of that profession. In some respects, therefore, a profession constitutes a kind of aristocracy of knowledge, membership being conferred upon those persons who have successfully applied themselves to the mastery of such specialized information and skills.¹⁸ Such trends were in turn a major aspect of the Industrial Revolution's effect of compartmentalizing technical knowledge and precise skills into narrowly defined categories.¹⁹

On the other hand, while modern in appearance, the French school of post-Napoleonic warfare was as well an affirmation of traditional aristocratic values. The leading problem of traditional officership, so painfully revealed by the French Revolution was the shocking degree of disloyalty of many lower-ranked officers, generally not of aristocratic birth. Thus, in addition to the incorporation of technical expertise, officership was redefined to insure complete

personal and political loyalty to the state. This goal was, therefore, a reaffirmation of the Eighteenth Century principles of isolating the military as completely as possible from the corruptions of civil society. Elan, honor and bravery, traditional warrior values, became institutionalized, via professionalism, as the moral basis of officership -- in other words, the military's equivalent to the conservative counter revolution of the Congress of Vienna. Furthermore, it was to a degree, an expression of the Romantic movement against the rationalism of the Enlightenment, albeit more of style than of substance.²⁰ Professionalism, to a degree, thus constituted a shield, guarding as well as isolating the officer corps from the politics and ideologies of civil society.²¹ This Janus-like quality of both modernity and traditional warrior values, was both the hallmark and the central weakness of French-Austrian, post-Napoleonic military doctrine, including its theory of officership. Over time, these discordant elements would tear against each other, with traditional usually emerging victorious. Only Prussia evolved a very different, far more technocratic definition of officership in which aristocratic warrior values gave shape but not definition to the concept of military leadership.²²

Part II

The debate over American war policy in the immediate post-War of 1812 years focused on the size of the regular

Army. The larger the force retained by Congress, the less the regular Army's reliance upon the militia as well as its greater expense. The strength of the Army from 1815 to 1817 was approximately nineteen thousand. Such a force was far too large, politically and economically, for the nation to maintain in peacetime. In 1817, John C. Calhoun was made Secretary of War. During his brilliant administration, Calhoun, through internal reform and political haggling with Congress, hammered out the basic structural form of the United States Army until the administration of Theodore Roosevelt.²³

An ardent proponent of a standing army, Calhoun believed that a military force of no less than ten thousand men was the key to the effective defense of the nation.²⁴ Such a force, due to the limitations of and the length of time involved in sail-propelled ocean transport, was deemed sufficiently large to counter any foreseeable threat from a major European power. acting in conjunction with the senior leadership of the Army, Calhoun developed for the first time, a definition of the military's mission in the defense of the country. First and last, the Army was to be prepared to meet a European threat to American independence. This doctrine became ingrained as formal Army policy for the remainder of the Nineteenth Century. "However remote our situation from the great powers of the world", propounded Calhoun, "and however peaceful our policy, we are,

notwithstanding, liable to be involved in a war; and to resist with success its calamities and dangers, a standing army in peace, in the present improved state of the military service, is an indispensable preparation."²⁵

The years 1818 to 1821, were not, however conducive to Congressional support for such a radical and expensive departure from traditional American military practice. The severe downturn in the economy after 1818 placed considerable pressure upon Congress to make significant reductions in federal spending. With no major foreign crisis in the offing, with an army clearly too large for the needs of frontier security duty, the House on May 11, 1820 continued its traditional animus toward standing armies, directed the Secretary of War to report a plan for the reduction of Army strength to some six thousand men.²⁶

Although vigorously opposed by the full spectrum of senior Army leadership, Calhoun, effectively but grudgingly, set about his unpleasant task of reducing American military strength. In a rearguard action to preserve the embryonic concept of military professionalism, as well as to ensure the combat effectiveness of the diminished Army, Calhoun devised the concept of a modular or skeleton army:

The great and leading object, then of a military establishment in peace, ought to be to create and perpetuate military skill and experience, so that, at all times, the country may have at its command a body of officers, sufficiently numerous and well...instructed in every branch of duty, both of the line and of the staff; and the organization of the army ought to

be such as to enable the Government, at the commencement of hostilities, to obtain a regular [force], adequate to the emergencies of the country, properly organized and prepared for actual service.²⁷

In short, the Army would be so organized as to allow for rapid expansion in time of war. To this end, supernumary or cadre officers were to be attached to each line battalion, who in wartime, would command an additional fourth company, fleshed out by militiamen. The result would be an efficient and relatively problem-free expansion of the regular Army in periods of national emergency. On January 23, 1821 the House passed legislation providing for a force of six thousand men commanded by a single brigadier-general supported by a much reduced general staff. The result was to vitiate the effectiveness of Calhoun's skeleton army concept. The Senate, exhibiting far greater support for the modular army plan, passed legislation generally conforming to Calhoun's design: a six thousand man force organized for future expansion (although with fewer surplus officers than were requested by the Secretary of War), commanded by a major-general and two brigadier-generals and assisted by a somewhat smaller general staff. This legislative plan, while not expressly ratifying the idea of officer professionalism as such, nevertheless, gave considerable support to this definition of military leadership. In the end, the Senate version prevailed, setting the basic form of the Army for the rest of the century.

While the new Army system of organization was in fact too constricted to allow for efficient and ready expansion, it nonetheless represented a significant advance over the impermanent and wildly fluctuating pre-War of 1812 Army.²⁸ Yet the ultimate purpose of this reconstituted Army, the defense of the United States from foreign invasion, had ironically been effectively negated by the Louisiana Purchase in 1803, by the terms of the Treaty of Gent and by the political understandings reached by the leading European powers at the Congress of Vienna. The result of these three events, by 1820, in concert with the limitations of sail power, effectively provided for the political and military isolation from Europe so long cherished by many Americans.²⁹ Only the development of steam powered ships in the 1830s and 1840s significantly altered this physical isolation from European power.³⁰ Consequently, many Americans held the view that "the United States, from [its] peculiar geographical situation, have undoubtedly less need of military establishments than any other government now existing."³¹ The result was a small military service barely capable of meeting the unlikely threat of European aggression and saddled instead with the considerable burden of frontier security duty in the ever growing territories of the United States.

Part III

As in Europe, Americans interest in upgrading and systematizing the training of officers, were groping for some form of improved officer education. The need for some form of military education for American officers was realized as early as 1783 with General George Washington's response to a congressional committee's request for his views on National war policy. Washington, in his response, in part, argued for the creation of a national military academy. A variety of other plans were advanced from Alexander Hamilton's plan for a grand system of basic and advanced military instruction to Colonel Louisdale Toward's suggestion for a school for the preparatory training of officer candidates.

Implementation of these schemes came to naught.³² In 1874 Congress created the Corps of Artillerists and Engineers. The enabling legislation provided for eight cadets. Training, however, was of the instructional method, rather than through formal schooling.³³

The true origin of formal American military instruction began on March 16, 1802 when Congress established a school of engineering at West Point, New York. The primary motivation of the Jefferson administration of switching from its earlier opposition to military professionalism was its desire to end Federal domination of the officer corps.³⁴ The new military academy was established as a division of

the Corps of Engineers (separated in 1802 from the artillery); the superintendent being the Commandant of this corps. Access was limited solely to prospective engineer officers. No significant advance was made in the function of the Military Academy until 1806 when it was informally opened to cadets from other branches of the Army. Prior to this date, prospective officers for artillery or infantry service obtained military employment from the respective corps (the administrative body of each branch of the Army) which issued warrants to such candidates, subject to presidential ratification. On the whole, prior to 1817, West Point was a rather indifferent technical school designed solely to train engineer officers.³⁵

In 1812 legislation was passed by Congress significantly altering the form and purpose of the Military Academy. Drawing directly from the French system of military education, in particular, the distinguished army engineering school, the L'Ecole Polytechnique, West Point was remade into a truly academic school of war. The Corps of Cadets was enlarged to two hundred and fifty officer candidates and entry requirements were imposed mandating basic competence in reading, writing and arithmetic, with final selection overseen by the Secretary of War. Of considerable importance was the creation of the first professorships; the subjects, initially being natural philosophy, French and mathematics, demonstrated both the

European and the engineering foundations of the curriculum. The new importance of West Point was forcefully demonstrated by making senior cadet class ranking the overriding factor as to which branches of service were open to the prospective officer. Thus the preponderance of the officer corps, save for those promoted from the ranks or appointed directly from civilian life, would now have completed a common, standardized four year course of military instruction. The objective, in part, as in the numerous military academies opened in these years in Europe, was to create uniformity in the technical skills of war. More importantly, was the development of a new class identification among the members of the officer corps: a combination of traditional aristocratic values and the new concept of military professionalism. The impact of these reforms was delayed by the outbreak of hostilities in 1812 with Great Britain, which greatly disrupted the education of the country's future officers.³⁶

Chief Engineer, Colonel Joseph G. Swift, in 1816 issued a set of regulations which fleshed out the earlier 1812 Congressional legislation and, in turn, fashioned the basic structure of West Point down to the present day. A Board of Visitors, patterned after the analogous Council de Perfectionment of the L'Ecole Polytechnique, and composed of five distinguished gentlemen (frequently including the Senate and House military committee chairmen) was created to

oversee the annual examinations and to advise on the operation of the school.³⁷ Secondly, cadets were henceforth to be ranked on the basis of merit, as determined by academic performance. A comprehensive four year curriculum was established as well, with oral examinations held twice a year, in July and December. Moreover, the position of cadet was granted an official status in the Army's rank structure, subjecting the officer candidate to the service's code of military law. Finally, new and superior standards of Academy administration and organization were implemented, particularly the creation of a separate superintendent for the school. Organizationally, however, West Point remained wedded to the Corps of Engineers.³⁸ The revised and far more comprehensive course of instruction at West Point was thus made the technical foundation of the new Army professionalism.³⁹ Military writer Henry Barnhard succinctly identified what the cadets were expected to have mastered:

They ((the cadets)) were to learn the sterner arguments of the battlefield; to arrange squadrons for the handy fight; to acquire the profound knowledge of the science and materials of nature, which should fit them for the complicated art of war; to defend and attack cities; to bridge rivers; to make roads; to provide armaments; to arrange munitions; to understand the topography of countries; and to foresee and provide⁴⁰ all the resources necessary to national defense.

Socially and politically, West Point, as "the nursery of officers," was designed to create a new class of military professionals, whose paramount loyalty would be to the

central governmental authority.⁴¹ Or as Henry Clay put it, in the clearest of terms:

The individual receiving the advantages offered by these Instructions would not look to any particular State, but would have his obligation to the fountain head, and to the support and strength of⁴² the Union all his exertions would be directed.

The Army could, as with its European counterparts, be available for the suppression of rebellion and the maintenance of internal order. An officer corps, isolated from civil society and whose loyalty flowed not to the states but to the federal government, was a crucial element in the Army's potential effectiveness in forcefully insuring domestic tranquility and order. This use of the Army was rarely mentioned by its supporters due to the widespread hostility to any standing army as a threat to liberty. Yet one officer did anonymously state this potentially necessary use of the military:

Under a well organized and just government, the military body is always a check upon a certain class of people, and particularly individuals, who, existing in every country,⁴³ are ever ready to foment violence and alarm.

A third key function of the revamped West Point was to serve as the transmitter, throughout the military establishment, of the new French-Austrian corpus of military science. The Military Academy thus, in part, existed:

...to introduce into the armies of the United States all the modern improvements in the art of war and the high state of discipline which distinguishes the best armies of Europe, to disseminate throughout our country a knowledge of

Military Tactics and Engineering so as to furnishing the means of rendering our militia as well as regular army an efficient arm; of defense in time of war; and to provide officers properly instructed and fully capable of superintending the construction of fortifications....⁴⁴

President James Monroe, pursuant to a scandal at the Academy, involving highly irregular procedures in the selection and passing out of cadets, culminating in Superintendent Captain Allen Partridge's court martial and acquittal, moved immediately to find a successor. Under Partridge, the Military Academy had been run as simply another Army post, not unlike the Eighteenth Century Berlin Academy for Prussian officers, with little effort to implement the new academic concept of military education. Major (later Colonel) Sylvanus Thayer was picked by Monroe to become the new head of the Academy. Few American officers were as thoroughly prepared for assuming the difficult task of installing the new system of professional military education and to rebuild the tarnished academic credibility of the Military Academy, as was Thayer. Educated in France, at the extremely prestigious L'Ecole Polytechnique, as well as West Point, Thayer was exceedingly well versed in post-Napoleonic military theory as well as in the most up-to-date pedagogical techniques. In the War of 1812, moreover, Thayer had distinguished himself as an officer of ability and talent; in his capacity as Superintendent, as General Scott described in the most laudatory of terms, he "gave development and great

excellence to that institution--stamping upon it his own higher character."⁴⁵ Under Thayer's enlightened guidance, the seminal features and the most enduring traditions of the Military Academy were created; it was "to his exertions, we owe, in great measure the success of the establishment"⁴⁶ The result of Thayer and the Academy's staff labors was, in part, the development of the first and most important school of engineering prior to the Civil War. More importantly, in terms of the needs of the United States Army, West Point was to emerge as one of the finest schools of military instruction ever created.⁴⁷ For the United States Army, the new West Point, patterned after the leading European models, was intended to serve as the incubator for a new class of American professional officers, trained thoroughly in the most modern principles of scientific warfare while at the same time embodying the conservative ethos and warrior values of their aristocratic predecessors. In turn, the Military Academy would function as the catalyst for the transformation of the Army into a modern and truly effective and potent military service.⁴⁸

As with the rest of the dilapidated pre-War of 1812 Army, the officer corps was a dispirited and indifferent lot. "The old officers," according to General Scott, "had, very generally, sunk into either sloth, ignorance or habits of intemperate drink."⁴⁹ Officer warrants were a form of political patronage, awards being based on personal

contacts, party affiliation and state or regional identification. As with most other Eighteenth Century officers, American military commanders learned their trade on the job, their knowledge of the art of war being meager and as demonstrated by the Napoleonic Wars and the War of 1812, all too often dangerously inadequate. Complicating matters further, was the absence of a uniform system of tactics, beyond Frederich von Steuben's drill book, and no formal body of regulations until 1812. Political jobs, such as postmaster, were frequently taken up by officers, leading of course to a lessening of their interest in purely military concerns. The rank politics in officer selection and promotion, the obvious lack of military success and several uproarious moral scandals badly tarnished the reputation of the officer corps. No wonder that the new generation of military leaders, rapidly promoted due to the repeated failures of their predecessors, so impassionately endorsed the very callow principles of professionalism and the science of war. Scott expressed the anger and disgust of his contemporaries with their predecessors when he vehemently savaged their lack of martial prowess:

Shall a coxcomb who merely wants a splendid uniform to gratify his peacock vanity- be allowed unnecessarily to lose his men by hundreds, or by thousands, to surrender them in mass, or to cause them to be beaten by inferior numbers;- shall such imbeciles escape ignominious punishment?⁵⁰

In a very real sense, therefore, the American officer corps had suffered, as a result of the War of 1812, the same

sort of debacle, the failure of command and leadership, as had the nations of Europe in their wars with France.⁵¹ In Great Britain, by far the most traditional military power of the period, and the most backward in the eyes of the new professionals, her officer corps was similarly criticized for its lack of expertise in the science of war. As Blanchard Jerrold put it: "an English officer's education is expressed by so many pounds sterling."⁵² Post-Napoleonic military science was thus the curative of the trans-Atlantic military community followed more or less uniformly by virtually every Western nation with the pointed exception of Prussia.⁵³ Effective future military leadership would demand a mastery of this new body of information and maxims. American devotion to the new European science of war was held by officers and military writers, such as Jacob K. Neff, as critical to the modernization and reform of the Army:

It should be asked why we obtain much of our information from European works, let it be remembered that we owe our tactics to Europe, and that it was against European tactics that our heroes had to exercise their powers. It was not so much the possession of superior tactics on the part of the Americans that crowned their efforts with victory,⁵⁴ as the superior application of them to practice.

Thus the redesign of West Point as a school of the arts of war was primarily intended to insure a solid American foundation for the continual adoption and transmission of the new French-Austrian school of military science. As

counseled by a very well informed Calhoun, "no truth is better supported by history than that under other circumstances being equal, victory will be on the side. . . who have the best instructed officers."⁵⁵ The new concept of military leader thus clearly manifested the Janus-like quality of French post-Napoleonic military doctrine. the modern face of the French-Austrian school of war, in the field of military instruction, was represented by the adoption of a new, technical and very mathematical language and curriculum, drawn from the only available model, the treatises of the engineers and artillerists. In other words, as clarified by Colonel J.J. Graham of the British Army, mastery of the "science of war" was thus the "proper knowledge of the elements of war."⁵⁶ For the first time, military experience and practice could be expressed, analyzed, transmitted and taught in a universal, nonjudgmental and wholly scientific manner. The intention was to give the student of the science of war "a great superiority over those who have neglected military science under the mistaken notion that untaught honor with patriotism is sufficient."⁵⁷ Or as Scott put it, to give the West Point graduate, "a head upon his shoulders."⁵⁸

On a purely practical level of military command, according to Isaac Maltby, "war, like many other things, is a science to be acquired, and perfected by diligence, by perseverance, by time, and by practice."⁵⁹ Therefore, the

necessity of long, hard study and practice, contrary to the quaint notion of the gentlemen as inherently an officer by act of noble birth, was now held to be essential to the proper instruction of the would-be officer, since, as stated by E. Hoyt, an American military writer, "an officer cannot be the work of a day."⁶⁰

The second face of the French-Austrian theory of military education and its command and leadership doctrine, its traditional and more important side, was composed of classical aristocratic warrior values. True excellence of command thus meant, in the first half of the nineteenth century, that an officer possessed the uncommon ability to "excel in the coup d'oeil."⁶¹ Or rather, as clarified by the noted French military Engineer and West Point instructor, Simon Francis Gay de Verron, "the coup d'oeil is the fruit of genius, of the union and assemblage of the talents which discovers instantly the relations of things, and promptly applies to the particular case or occurrence of moment."⁶² The concept of the coup d'oeil was the heritage of an earlier age in warfare in which there were substantially no military staffs, virtually no organization above the regiment, only the most inchoate principles of troop and unit movement and almost no literature, of a systematic nature, on the art of war. Successful military command, focused intensely on the performance of the great captains of war as guides and models, was truly the province

of genius and its close ally, fortune. The new officer of the early Nineteenth Century, as defined by the great master of the French-Austrian school of war, Baron Henri de Jomini, was a mixture of the warrior tradition and the new science of war:⁶³

The most essential qualities for a general will always be as follows: First, A high moral courage capable of great resolutions; Secondly, A physical courage which takes no account of danger. His scientific or military requirements are secondary to the above mentioned characteristics, though if great they will be valuable auxiliaries. It is not necessary that he should be a man of vast erudition. His knowledge may be limited, but it should be thorough, and should be perfectly grounded in the principles at the base of the art of war. Next in importance come the qualities of his personal character. A man who is gallant, just, firm, upright, capable of esteeming merit in others instead of being jealous of it, and skilled in making this merit conduce to⁶⁴ his own glory, will always be a good general....

Thus truly, "the science of commanding armies is a gift of Heaven. It is genius that inspires great generals; hence their rarity. But to make a good officer, only requires instruction and experience."⁶⁵ Technical expertise in the arts of war, while valuable, paled beside the sheer brilliance of a Frederick the Great or a Napoleon, the paragons of generalship. Fundamentally, therefore, to the officers of the first half of the Nineteenth Century, "the mode of war is an art and not a lame abstract science."⁶⁶ The theory of war could not therefore "exclude human nature," rather "it has to admit valor, boldness, and even temerity."⁶⁷ The truly effective officer was thus conceived

as the blend of disparate elements, of the coup d'oeil and the science of war, since excellence of military leadership demanded "the most extensive acquirements and the most superior of mental and moral qualifications."⁶⁸ West Point could not of course have been expected to impart to its graduates the mystical qualities embodied in the coup d'oeil, although it did impart most effectively the patrician values and culture of the earlier aristocratic officer. Rather, West Point served to equip American officers with a basic competency in the new technocratic science of war and to identify the most promising candidates, under peacetime conditions, for future positions as senior military commanders. Officers were, after all, still defined as warriors, expected to heroically lead their forces into battle, and not as commanders or bureaucratic managers of complex military organizations. Thus West Point served the vital function of training and cultivating the new type of officer; one whose values and philosophy were those of their aristocratic predecessors but who was also equipped with a solid grounding in the technical science of war.

Despite the near uniformity of opinion, on both sides of the Atlantic, as to the nature of both competent and remarkable military leadership, at least one noteworthy American officer, Brevet-Major-General Edmund P. Gaines, openly challenged the paramount emphasis on the coup d'oeil.

The effectiveness of an army depends on the character and qualifications of the captains of companies and commandants of regiments. Without these. . . the most renowned general could effect but little. . . against the veteran troops of civilized nations. But with companies and regiments ably commanded, much may [be] effected without [the] towering genius of a Frederick or a Napoleon at the head of the brigade, division, or the army.⁶⁹

The modern and democratic tenor of Gaine's observation (who, in most matters regarding the post-War of 1812 American Army, was in full agreement with the rest of the young turks of the officer corps) clearly ran counter to both the arch political conservatism of the French-Austrian school of war and the bedrock of tradition which lay at the heart of the concept of military leadership. Most American (and European) officers would have instead sided with the concept of military genius as so strongly articulated by Colonel Patrick MacDougall of the British Army:

Great generals are heaven born, but it would be a very foolish conclusion from this truth that they may therefore dispense with the study of their profession. On the other hand, the art of war can never bestow those mental and physical qualities the combination of which is indispensable in a military leader.⁷⁰

While the West Point of the Antebellum era was first and foremost a school of military science, its curriculum was dominated by engineering courses. Military theory, as understood today, was taught in a rather limited and not particularly detailed manner. Captain Dennis Hart Mahan, for example, devoted a mere two weeks of his seminal two semester course on fortification principles to tactics and

strategy.⁷¹ In the two years prior to the Civil War, some seventy-one percent of class time, on the average, was devoted to the study of engineering, mathematics and natural philosophy. The remaining twenty-nine percent of the curriculum was reserved for all other subjects, including French, dance and military science. Tactical training and expertise in all forms of weaponry was largely a matter of drill, particularly during the summer field exercises. Moreover, the technical subjects such as engineering were each weighted 2.0 or 3.0 by the Academic Board as compared to only a rating of 1.0 or 1.5 for "military" subjects. Thus, in terms of the cadet's order of merit and final class standing, which was determinative of his choice of branch of service and his position on the promotion list, excellence in subjects such as engineering and natural philosophy was far more important than, say, artillery drill in launching a career as an officer.⁷²

By modern standards, Antebellum officer training would seem too theoretical in its content. Clearly, modern officers require a broader education, combining managerial with combat and leadership skills than that afforded by the West Point of the first half of the Nineteenth Century. However, it must be of course noted that an Antebellum American Army officer was being trained to fight not a Twentieth Century but rather what was essentially an Eighteenth Century war. The mathematical domination of both

the course of instruction at West Point and of military writing in general in this era is perhaps the most perplexing aspect of the science of war in the first half of the Nineteenth Century; reading Jomini and studying his numerous geometrical formulas, it appears that if followed to the last decimal, war could be fought automatically and with a constant degree of victory. Mathematics, and its practical application engineering, were clearly of inestimable value to the practitioners of the new science of war. The importance of mathematics was clearly stated by Hoyt:

...geometry is the science of measuring, or in other words it is the science that treats of and considers the properties of magnitude in general, comprehending the doctrines and relations of whatever is susceptible of augmentation or diminution.⁷³ It is esteemed by many writers as the art of war.

Of what therefore were the calculations and formulas, in works of military theory representative of? They were most assuredly not abstractions, without mooring to actual military experience and history. Rather, they represented the first attempt to translate military historical experience into a universal and technically precise language. Military history, as in the preceding Eighteenth century, remained vital to military education, as engineering professor Captain Mahan so clearly understood.⁷⁴

No one can be said to have thoroughly mastered his art, who has neglected to make himself conversant with its early history; nor indeed, can any... elementary notions

ever be formed of an art beyond those formulated by the more technical language without some historical knowledge of its use and progress; for this alone can give to the mind those means of comparison, without which everything has to be painfully created anew... it is in military history that we are to look⁷⁵ for the source of all military science.

Certainly, the new scientific course of officer instruction was criticized precisely because it appeared as a radical departure from the earlier, informal reliance on military history, in conjunction with battlefield experience, to train officers.⁷⁶ Calhoun, most assuredly an ardent proponent of the Military Academy, questioned the emphasis on mathematics. And there was certainly more than an element of truth in the criticism of Inspector General John E. Wool's remark that great military success was "not achieved by... the measurement of angles".⁷⁷ As understood by Thayer and many other formulators of the new science of war, however, the supreme advantage of a mathematically centered course of instruction over traditional military history, emphasizing heroic feats of arms, was its very pronounced quality of being systematic and completely logical. Thus, "history is the basis upon which the principles of the 'science of war' are found", as expanded by Mahan's successor as instructor of engineering at West Point, Brevet Colonel J.B. Wheeler, and such knowledge could only be "acquired by systematic and methodical study".⁷⁸ Therefore, since "facts must precede theory", "it is evident

then that an intimate connection exist between military history and the science of war".⁷⁹

The manifest and quite urgent need for a vastly improved system of both officer education and the writing and the writing and analysis of military problems had been clearly demonstrated by recent battle experience on both sides of the Atlantic. Military history, of the traditional variety, had clearly not been adequate in providing officers with basic technical skills of warfighting; while one could of course learn the secrets of winning great campaigns, heroic accounts of battles simply could not tell a captain how to best direct his company in battle or a second lieutenant how to build a temporary bridge. The new scientific officer was thus intended to be a considerable advancement over his immediate predecessor, the aristocratic officer, in his knowledge of and ability to employ technical military information and skills. A new critical and investigative frame of mind, one willing to a degree, to experiment, was thus necessary in order to bring about a significant upgrading of the basic standard of officership in both European and American armies. As McDougall explained, the aristocratic officer had been content simply to memorize the minutiae of the drill book and were "content to ignore the principles, or correct knowledge of which ((i.e., the science of war)), could alone enable them to apply those acquirements with any useful results".⁸⁰ The

new science of war was developed, however imperfectly, to supply an officer with a logical, coherent and apparently valid framework of problem analysis and solution. Its model was the works of the artillerists and engineers who had made siegecraft a precise, mathematically certain task. Thus, for the proponents of the new science of war, it was evident that aside from true but rare military genius (which no program of instruction could be of course devised to instill in officer cadets), what chance would a traditional officer have against the superior attainments of the scientifically trained professional.⁸¹ It should be remembered that West Point was supposed to turn out high quality second lieutenants and not brilliant major-generals. Military skills for most soldiers - artillery, infantry and cavalry, such as loading a cannon, executing a column left or delivering a charge were not in themselves terribly difficult. The advantage of the new scientifically trained officer was that, in a pinch, he could with reasonable effectiveness perform all these tasks and many others as well. It was this very flexibility of mind and broad base of knowledge that conferred significant advantage to the new professionals.⁸²

Mathematics, as the new cornerstone of the military arts and science, was held by the new professionals to be a logical step in the gradual improvement of war fighting, since the end of the barbaric Thirty Years War, toward

ameliorating the passions and violence of war itself. It was a part of a logical progression from the development of international legal principles protecting captured soldiers and the imposition of restraints on wanton pillage and looting by an invading army. Thus, the very precision and coolness of mathematically centered military analysis would, it was hoped, work to constrain and eventually dissipate the primitive fears, emotions and animosities that drove men and nations to war. In a very real sense, therefore, the ultimate goal of the science of war was to provide for the very elimination of war itself, replaced, one assumed, by clean, faultless and bloodless logic as the new basis of peacefully resolving international conflict. Thus, the great strategist Baron de Jomini, defined military science as the pathway toward the purging of war from human history:

Military science in our hands may then become the potent instrument of millennial triumph, the indication of universal peace. Military science prevents war, conducts it in triumph and under humane restraints, and will at last make war impossible; hence we learn our duty.

Engineering, in its immediate practical uses by armies and officers, rendered it of enormous value. One cardinal failing of Eighteenth Century armies was the common tendency of military services to grow soft and fat in peacetime. Paramount therefore to the ability of the new scientific armies maintaining their battle effectiveness lay in finding ways of exercising officers, soldiers and units and thereby

keeping them lean and trim despite the comfortable and devitalizing conditions of peacetime. As announced as early as 1800 by President John Adams, the peacetime Army must be so organized as to allow "military science, in its various branches... to be cultivated with particular care."⁸⁴ Thus, in the intervals between hostilities, an army had to be kept effectively active so as to guard against the highly corrosive effects of prolonged exposure to the isolation of garrison duty. Such excessively defensive maintenance of regular troops was held to vitiate the ardor and elan of the men. As for the officers, the effect was defined as inculcating them the pleasant but illusionary comforts of garrison duty, rendering them lax in their study of the science of war. Finally, in terms of the army as an entity, the cumulative effect was to render it enfeebled for the sudden and unexpected rigors of war. The critical importance of keeping officers, men and armies alike, trim and lean - capable of being placed on a war footing on short notice - was crucial to the new professional military leaders. The inability of European armies (or for that matter, the American military service in 1812) quickly to prepare to counter the French threat underscored the crucial importance of developing techniques of maintaining a high degree of combat readiness in peacetime.

There were, according to Jomini, two possible solutions to this problem. One was clearly military, in its traditional sense: to exercise regularly in great maneuvers and sham battles "which, though but faintly resembling those of actual war, still are of decided advantage in preparing for war." Secondly, in a manner expressing the emphasis of military science on engineering, an army could be gainfully employed "in labors useful for the defense of the country."⁸⁵ This second solution bore the hallmark of Eighteenth Century limited war doctrine to minimize the burden of national expenditures for its military services and in turn, whenever impractical, channel such funds into enhancing the civil economy. Due to the pressing demands of frontier security on a small, illfunded military force such as the United States Army, the second technique of maintaining battle readiness was considerably more practical. Road and coastal fortress construction, while placing a considerable strain on limited military resources and fiscal outlays, particularly in regards to line units, was nevertheless invaluable as a training device. Large scale engineering projects after all utilized the same type of organizational skills as did complex field campaigns. In addition, such labors served to fulfill such tenets of professionalism as using specialized skills and knowledge for the benefit of society, which in turn worked to lessen the general hostility of the American people toward military

forces. An added direct military benefit was that engineering officers constituted the most promising and talented commanders in the Army. Their career growth was surely to be enhanced by tackling the innumerable difficulties of laying out and building a badly needed military road over several hundred miles of virgin country. Chasing Indians, as lowly and unmilitary task as could be imagined, was far better suited to the less cerebral types populating the infantry. As revealed by the failures of the War of 1812, there most certainly was a pressing demand for the construction of roads and other forms of interior lines of communication to correct the appalling lack of mobility of the Army. Casement fortresses were also required to shield the nation's coastlines against European invaders. Such projects were particularly valuable for those Congressmen in whose districts they were to be built, earning the Army political capital and currying favor with the influential.⁸⁶ Finally, perhaps the simplest and most practical rationale for an extensive grounding in engineering by professional officers, was that offered by Hoyt:

Next to an acquaintance with the field exercises and duties of the camp, no part of military science is of more importance than fortification: for without some knowledge of this, how will he ((i.e., the officer)) be capable of throwing up work for the defense of a post or detachment... when he has not with him an engineer?⁸⁷

Public acceptance of West Point, as the fulcrum of Army professionalism, was mixed. Clearly the contribution to the development of civil engineering was immense. Yet for perhaps a majority of Americans, particularly during the Jacksonian era of the 1830s and 1840s, a very negative image of the Military Academy came to the fore in national politics. In some quarters West Point was depicted as still another cesspool of decadent European, aristocratic corruption antithetical to the values of the American republic. This line of criticism, in its broadest terms, was forcibly stated by Senator Thomas Hart Benton of Missouri, who argued that West Point was guilty of affording "a monopoly for the gratuitous education of the sons and connections of the rich and influential."⁸⁸ Furthermore, the system of exclusive presidential selection of cadet applicants was vigorously criticized by Benton for entrenching in West Point graduates a belief that they were "independent of the people" and more grievously, were "irresistibly led to acquire the habits and feelings which in all ages have rendered regular armies obnoxious to popular government."⁸⁹ Critics frequently charged West Point with having unfairly and improperly usurped the right to supply the United States Army with officers, since according to proponents of this view, "in many circumstances better officers could be found among our militias." A related complaint was that officers drawn from civil society

were stigmatized by their lack of professionalism, with "every exertion... made to crush him."⁹⁰ Thus, for its adversaries, "the Academy sits like an incubus upon [(our)] militia and they cry loud for justice and equal rights."⁹¹

The Army to a degree, closed ranks against the weight of public and political criticism, which ironically served to strengthen military professionalism. The rough-and-tumble quality of Jacksonian politics was most distasteful to the very patrician members of the scientific, gentleman officer corps. The very democratic quality of the anti-West Point attacks was, by and large, contrary to the social ethos of the new professional officer, as sharply stated by one newly minted cadet:

Without it [(i.e., West Point)] our army would have become another political lazaretto, where a depraved executive could, and would, quarter its importune scavengers and palace begging lazzaronie, until it would become an unendurable stench in the national nostrils. Already... patronage [(has)] so far debased our government, as to grieve all honest patriotism; and were the army, navy and marine corps, to become like the custom houses and post-offices, but parts of a huge machinery for political pension and party warfare, better, far better, were it to at once disband them all, and leave hostile⁹² emergencies to be encountered as they could.

During the course of President Andrew Jackson's administration, the level of political opposition to the Military Academy grew to considerable proportions. Several state legislatures, including Ohio (1834), Tennessee (1833) and Connecticut (1842), passed resolutions calling for the termination of West Point.⁹³ In response, Congress, in 1844, completely revised the Academy's selection policy. Selection of cadets was removed from the purview of presidential authority and instead, was invested in the Congress. Under the revamped system, each Senator was allotted six cadet slots, each Congressman two and the President, ten. Nevertheless, despite such a major redrafting of the cadet selection process, entrance standards were not pared down. Thus there remained in place reasonably difficult entrance requirements, which still had to be hurdled by an interested candidate.

In the wake of the 1821 Congressional reduction of Army strength, Secretary of War Calhoun convened boards of officers to weed out the unfit, incompetent or poorly educated among the Army's commanders. From 1821 to 1832 only West Point graduates were allowed to enter the officer corps, save for a handful raised from the ranks. Subsequently, after 1832, civilians were granted admission, provided they satisfactorily passed an examination. West Point, however, continued to provide the bulk of the Army's officers; by 1860 its graduates constituted 7.58 percent of

the officer corps, including physicians and clergymen (who had always been promoted directly from civil society). A second major result of the Calhoun reforms was to instill a high level of stability within the officer corps. Granted that the combination of low pay, harsh working conditions, the slowness of promotion (there was no mandatory retirement age) and lack of social status served to deter many from seeking or continuing with a military career. Nonetheless, compared to the pre-War 1812 situation, a considerable degree of constancy was imparted to the ranks of the officer corps as a consequence of Calhoun's reforms. For example, of the thirty-two men at or above the rank of full colonel in 1860, when the seniority system of promotion for line units was replaced by one of merit, ten had held filed commissions in the War of 1812. The overwhelming remainder, had entered the Army prior to 1830.⁹⁴

West Point succeeded in its central task of producing highly trained, professional soldiers, "men of intelligence and culture, who...[possess] the most exalted conception of integrity and moral and personal responsibility," according to graduate Colonel Randolph B. Marcy.⁹⁵ Without question, the four years spent at West Point, were the single most important experience of an officer's career. Cadet ranking in the senior year was the key to a high slot on the very slow promotion list (it usually took some three years for a brevet second lieutenant to gain an actual commission).⁹⁶

The more brilliant a cadet's performance, the greater the range of choice of selecting a branch of service.⁹⁷ After graduation, it was largely left to each officer to keep up with the changes in the science of war. Efforts at establishing a higher level of military education for senior officers, such as the Artillery School at Fortress Monroe, Virginia, collapsed in the 1830s due to lack of funds and the relentless demands of frontier security duty. In this regard, the United States lagged, but not all that much, behind its mentor, Bourbon France.

It should be noted that the cadets were after all, adolescent boys. For most, the freshmen year constituted their first protracted and independent stay away from home. Impressionable and malleable, the cadets were refashioned by the stern discipline into officers and gentlemen in four short years, after which they were expected to be able to lead men into combat. Inexperience and impressionableness thus added further to the extraordinary degree of influence and prestige enjoyed by the French-Austrian school of war among members of the officer corps. Thus as regards West Point's cardinal objective of instilling the principles of military science, history and of course honor in its charges, it succeeded, according to the rules of the day, with considerable effectiveness.⁹⁸

Part IV

The organization of the Antebellum Army reflected the realignment of the military service upon the French model. Prior to 1812, Army administration had been highly decentralized, largely under civilian control, plagued by the corruption and inefficiency of private contractors, and poorly organized and operated. In 1812 Congress initiated major reforms in Army organization. Of major note was the establishment of a military quartermaster corps. The outbreak of war, however, interrupted efforts at substantially revising Army administration until after the cessation of hostilities. The postwar reforms were given new urgency by the shocking lack of effectiveness of the earlier system. On April 14, 1818, legislation personally authorized by Calhoun was passed by Congress resulting in the centralization of Army administration under the auspices of the Secretary of War.⁹⁹ Specifically, a single quartermaster department was created as well as a commissary general of subsistence and a surgeon general. More significant than the establishment of any one office was the introduction of the bureau system of administration. Major executive departments were created under the auspices of the War Department and, in turn, subdivided into subdepartments, each with its own chief and staff of clerks.¹⁰⁰ The one critical failure of the reorganization scheme which, in 1821, the ordinance bureau was combined with the artillery

as a single corps. This inefficient shotgun marriage was annulled by Congress in 1832.¹⁰¹

The organizational scheme of the Army, hammered out in the years 1815 to 1821, established two broad, independent divisions of the military command and administrative structure. The General Staff was composed of the semi-independent bureaus, such as the quartermaster corps, the corps of engineers, the adjutant general's office and the civilian-run paymaster's department in Philadelphia. Each bureau chief held the rank of colonel, with the exception of the Quartermaster General, who as a brigadier-general due to the great demands and prestige of his office. The bureau chiefs enjoyed considerable organizational autonomy, reporting directly to the Secretary of War. The national Headquarters was organized parallel with the General Staff. It consisted of the Commanding General and his small direction of Army field operations. By custom, the Commanding General was allowed the use of the two Inspector Generals and the Adjutant General. The former were responsible for inspections and insuring the military fitness of line units and bases. The latter functioned as the effective head of Army field operations, a kind of executive secretary insuring clarity of orders issued by the national Headquarters.¹⁰²

At the apex of the Army's chain of command, at least in theory, was the Commanding General. This office was

established by default under the terms of the 1821 reorganization, which retained one of the two major-general positions. The immediate purpose of this office was to address the severe problem of lack of supreme intra-Army command authority. During the War of 1812, one major failing had been the marked absence of any one officer empowered to act as the senior representative of the Army, positioned in the chain-of-command between the field department commanders and the Secretary of War. The primary command problem was one of definition of authority. The exact powers and duties of the Commanding General were thus exceedingly vague and ill-defined. Gradually, both Congress and the draftsmen of the Army's Regulations invested this office with seemingly impressive administrative powers. Functionally, however the position of Commanding General remained largely declared; whatever official powers it may have possessed, its authority ultimately lay in the personality and charisma of the holder of that position. The first Commanding General, Jacob Brown, ran this office as if its authority was truly vacuous. Essentially, Brown, who was extremely deferential to his superiors was content to be no more than the senior military advisor to the Secretary of War.

In 1828 Brown died, precipitating a bruising and quite unseemly tussle between the two brigadier-generals, Edmund P. Gaines and Winfield Scott, over the right of succession

to the office of Commanding General. In the end, both prospective candidates, by their vitriolic sparring and by refusal to obey orders, succeeded only in discrediting themselves. A compromise choice was found in Inspector General Colonel Alexander Macomb. The undercorous row over the position of Commanding General compelled Congress to undertake a re-examination of this office. Seeking to clarify the purpose and the purview of the Commanding General, Congress in 1828 formally defined it as the "medium of communication" between the government and the Army. This hardly constituted either a blanket or even a specific grant of administrative authority to this office. No real or substantive redefinition of the Commanding General's office emerged from Congress's further ponderings.¹⁰³ Thus it rested once again on the holder of the office, with the assistance of increasingly more specific Army regulations, to determine his role in the structure of organization and command. While Macomb (and from 1841 to November 1861, Scott) pursued a far more pugnacious policy of asserting the authority of the Commanding General, no substantial gains of administrative power were in fact tallied by such efforts. At no time was real authority over the bureaus ever exerted for any appreciable period of time by the Commanding General. Moreover, field operations were frequently conducted by the department commanders, on their own authority or directly under the orders of the Secretary of

War.¹⁰⁴ Consequently, the Army lacked a centralized, overarching command structure to direct and coordinate all aspects of organization and administration. The lack of central executive authority in the Army later proved one of the key difficulties in the Union efforts to win the Civil War and remained unsolved until 1903 when a modern general staff was created.¹⁰⁵ Yet this was a time when field commanders, according to the rules of the French-Austrian school of war, were expected to be brash and unflaggingly assertive in the direction and handling of military matters. Once in the presence of the enemy, the effective and honorable commander was expected never to "accept any plan ready-made, or any fixed instructions from your government on the manner of carrying on the war." according to Captain Auguste F. Lendy of the French general staff.¹⁰⁶ In this regard, military command continued to resemble more closely the practices of Seventeenth Century mercenary free companies than the highly bureaucratic armies of today. All in all, therefore, the office of Commanding General remained quite weak.

It has been argued and widely accepted that the organization of the Antebellum Army was principally derived from British military practice and was corresponding, highly decentralized.¹⁰⁷ In fact, while deficient in such respects as the training of staff officers, the United States nonetheless substantially realigned its system of Army

administration directly on French practice and methods. The general staff, responsible for army administration, had historically evolved out of the quartermaster corps.

The development of improved roads and significantly better techniques of topography, in the late Eighteenth Century led to a much greater level of army mobility. Thus, in order to locate camps and sources of provisions, the function of strategic reconnaissance and long range planning devolved out of necessity to the quartermaster corps. Slowly this fusion of administration, planning and intelligence gathering crystallized into what would begin to be recognizable as a true general staff by the conclusion of the Napoleonic Wars.¹⁰⁸

Of particular interest was the role of the field commander in French-Austrian tactical doctrine. The worship, as it were, of military genius and the coup d'oeil, was wholly representative of traditional aristocratic warrior values, not easily translated into an organizational chart. Consequently, as under Napoleon, staffs were defined as no more than tools to facilitate the will of the warrior commander. While transportation and communication expanded and military operations assumed continental proportions, the staff remained underdeveloped. Even the pronounced difficulties experienced by Napoleon in attempting to personally direct the massive warfighting operations of his vast Empire had no effect, save for the Prussians, on post

war military planners. The staff was thus confined principally to "supervise and coordinate the various branches, and thus relieve the commanding general of a multiplicity of details," as explained by General George B. McClellan.¹⁰⁹ "Without a well instructed and intelligent staff," counseled Colonel MacDougall, "the difference divisions, however admirable in organization and discipline as independent military units, would, when required to combine their action toward a common object, be found wanting in that unity of impulse which is indispensable to military success."¹¹⁰ Staff work remained no more than a coordinating process in this era. It did not, as is the rule today, plan and implement army operations. Only the Prussians developed the modern conception of the general staff, aimed specifically at correcting this key weakness in the Napoleonic warfighting system. The General Staff, was, by royal decree, in 1821, made a completely independent body from the civilian war ministry. The result was that the General Staff and its supreme chief-of-staff were responsible for all facets of Prussian army organization and leadership. American and French general staffs, in sharp contrast, merely tinkered with the Eighteenth Century model of military command and organization.¹¹¹

Structurally, French Nineteenth Century army organization was not dissimilar from contemporary American practice. Both were divided into administrative and command

departments, with strong institutional barriers between each. Thus, the General Staff was the equivalent of the intendance, the Etat Major, of the French Army, consisting of the quartermaster corps, the adjutant general's office and the other logistical and administrative bureaus. Similarly, the national Headquarters and the subordinate department responsible for field operations were patterned directly after the directory of the French army.¹¹² In sharp contrast to the orderly state of military administration in France and the United States, the British army's system of organization was exceedingly diffused. The Royal Army's administration was a veritable crazy quilt of separate and independent civilian and military department encrusted with tradition and custom; the artillery regiments, reminiscent of medieval guilds, did not even own their cannon, which were in fact the property of a civil ordinance office. Regimental supply, quite unlike either American or French efforts at centralizing military logistics, was in the British army left to the individual units. During the latter Crimean War (1853-1856), many of the crippling supply problems of the Royal Army could be directly traced to this enormous gulf between field units and the disorganized civilian administration.¹¹³

Though the office of Secretary of War was established by Congress on August 7, 1789, its precise role, relative to senior military leadership and the chain of command, was to

remain unclarified for over a century.¹¹⁴ The early experience of the War Department did little to enhance its reputation or authority. Only two truly effective and influential men held the office of Secretary of War in the Antebellum years: Calhoun and Jefferson Davis. The primary managerial flaw was that the position was usually filled by short-term professional politicians.¹¹⁵ The high level of turnover at the top thus served to frustrate the development of comprehensive and original war policies. It worked as well to undercut the personal authority of most Secretaries of War, who simply could not match the administrative knowledge, expertise in bureaucratic infighting and longevity of the bureau chiefs, who essentially served in their offices for life.¹¹⁶ At a still higher level of command, lay the perpetual battle between the President and the Congress over which branch would exert primacy in the development of national war policy. In the Antebellum era, this political struggle would ascend to inconsequential matters as the personal weapons of the rank-and-file or even the style of uniforms issued. Generally, in periods of war or during the infrequent tenure of an aggressive and interested Secretary of War, domination over military affairs swung to the president's corner. Thus, under the less than effective prosecution of the War of 1812 by the Madison administration or in the case of the far more successful (if no less combative) efforts of James Polk in

directing the military effort in the Mexican War, control over national defense policy was almost solely the province of the executive branch. Similarly, during both Calhoun and Davis's tenures as Secretary of War, the executive branch effectively controlled the outcome of most major policy resolutions. Generally, in the Antebellum period, however, military policy was essentially a Congressional prerogative. The legislative branch exerted dominance by its strangle hold over the budget and on occasion, by the direct passage of legislation encompassing specific policy decisions. One may wonder what influence, if any, senior military leadership exerted in this process. The answer is not much at all. The divided system of command, the ambiguous role of the Commanding General and the creed of military professionalism, which advocated that the officer corps stand aloof from the coarse and unseemly world of civil politics, combined to mitigate Army influence in the formation of war policy. In put was limited to unofficial personal correspondence with members of Congress. Lobbying by the Army was not a feature of Antebellum politics.¹¹⁷

Underlining the problem of executive versus the legislature, was the larger and more problematical question of civil control over the military. Standing armies only began to reappear in Europe in the 1640s. They were one of the most telling badges of the newly emergent absolute monarchies. So to was the switch to the use of aristocratic

officers. No country satisfactorily resolved the thorny dilemma of civilian control over the permanent military establishment. The very nature and composition of a standing army resisted being bent to the will of elected civil authority. Its makeup was that of socially elite officers, isolated from and contemptuous of civil society and politics, and commanding the sweepings and dregs of that society. Furthermore, in the United States, while the larger society, during the course of the Jacksonian Age as a result of industrialization, was experiencing an era of startling growth of personal and social mobility, the perspective of military professionalism was backward looking in its reaffirmation of traditional, aristocratic warrior values. Military service had been, for several hundred years, a matter of personal loyalty to a superior and not to some disembodied and impersonal entity such as the state. From the viewpoint of the officer corps, an equally troubling problem was the relationship of the militia forces, by relying largely on the standing army. The only traditional monarchial state to fashion a workable solution was Prussia. In 1858, by royal decree, the Prussian militia, or Lander, was placed under the direct authority of the General-stab, with regular officers placed in command and sergeants drawn from a pool of loyal veterans. For most other nations, the process of integrating the army into society would only be resolved early in our own century.¹¹⁸

American popular opposition to the idea of a standing army can be traced back to the Radical Whig ideology of late Seventeenth Century England. The new permanent Royal Army, authoritarian and aristocratic by nature, was viewed by some as a constant threat to parliamentary government.¹¹⁹ In the American colonies this issue came to the fore in the 1760s. Following the conclusion of the Seven Years' War, permanent British garrisons were established. Close association with the Redcoats provoked a revival of the earlier Radical Whig opposition toward standing armies. One key result of this reaction was a dramatic reassertion of the role of the militia as the primary source of colonial military power. To this end, the militias were overhauled and centralized under the authority of the local governing body, instead, as before, at the county level. In this movement lay the origin of the idea of a truly national American army, a concept which, however, would have a very long and quite painful gestation period.¹²⁰ In 1776 Samuel Adams warned:

A standing army, however necessary it may be at some times, is always dangerous to the Liberties of the People. Soldiers are apt to consider themselves as a Body distinct from the rest of the Citizens. They have their Arms always in their hands, their Rules and their Discipline is severe. They soon become attached to their officers and disposed to yield obedience to their commands. Such a power should be watched with a jealous Eye.¹²¹

The fierce and passionate debate between proponents of the militia and the advocates of permanent military forces, had, at its heart, the fundamental question of the

legitimacy of the regular Army itself. What struck in the craws of many Americans was the fear that standing armies were an inherent threat to civil liberties and freedoms. In other words, whether to choose between Lundy Lane, General Scott and the professional army of General Jackson, New Orleans and the state militias, as per the still fresh experience of The War of 1812. Fundamentally, both sides either for tactical reasons or out of conviction, would have concurred with the views of Brevet Major General Gaines, who in 1828 wrote:

That the militia forms the basis of the defense and productive power of the republic, the history of our independence and fortune, success and triumphant wars, with one of the strongest powers of Europe, offers the most inefragable ((sic.)) evidence.¹²²

Basically, the opponents of the standing army concurred fully with Adams' earlier comments; Benjamin Butler forcefully stated, in no uncertain terms, that such bodies are "injurious to the habits and morals of the people, and dangerous to public liberty." Moreover, the Army was "productive of needless waste and expenditure."¹²³ To insure against the use of the Army as an instrument of tyrannical power by some would be Napoleon skulking within the ranks of the professional officer corps, it was thus necessary, according to militia officer, Captain M. W. Berriman, "to maintain a regular army not larger than the immediate needs of the frontier." To the proponents of the militia, the citizen soldiers of the several states were

thus the true bulwark of national defense. "It is in this grand element of the volunteer soldier, the alacrity with which our young citizen chivalry leaps to arms... with eager and clamorous offers of service.... This indication of a warlike and inestible spirit that we find our real protection from old world jealousies and hatreds."¹²⁴

The defenders of the standing army number more than the members of the regular Army officer corps, although never a majority of the body politic. For example, the Attorney General of Massachusetts, William H. Sumner, in 1823, while accepting the correctness of the proposition that the regular military establishment was the historic enemy of liberty, nonetheless found a very real need for a standing army. "The militia intended for defense only; standing armies for aggression, as well for defense."¹²⁵ Thus effective national defense mandated both elements, acting in harmony and close cooperations.¹²⁶ Far less temporizing in his enthusiasm for the regulars was Western traveler Eastwick Evans, who excoriated the proponents of the militia for being simplistic in their opposition to a large standing army:

In this particular, we seem to have been unduly influenced by our too general idea of a standing army; - an idea which at the ceremony of a hearing, every suggestion of reason. We are not children, and it is high time to put aside bugbears. Our prejudices against the standing armies are natural, and in some respects, salutary, but in fleeing from the water, let us not run into the fire.¹²⁷

Naturally, of course, it was the regular army officer corps who were the most ardent defenders of a large standing army. Their arguments were premised on the ineffectiveness of the militia, again revealing the Janus-like quality of the new officer professionalism. According to one side of the argument, the standing army was an effective means of sparing the nation the expense, fiscally, socially and politically, of the burdens and terrors of war; as expressed by Captain Philip Cooke:

What amount of treasury has been expended the guardians of the Treasury can best answer, those conversant with militia claims, can best estimate: - to what purpose with what gains to the nation, military men might answer if they pleased, but all conversant with figures can demonstrate that the militia operations ((in)) 1832 ((e.g., the Black Hawk War)) cost a sum that would support the regiment of dragoons for ten years, to say nothing of an immense loss arising from a general neglect of business, particularly farming. ¹²⁸

A second line of professional officer criticism, as announced by General Scott, was reflective of the new technocratic expertise in the science of war. As a fighting force, the militia graded out very badly, due to its lack of discipline and for an almost complete ignorance of the science and art of war. Such criticism was characteristic of the intense post-Napoleonic conservative reaction against the excesses of the French Revolution in particular and democratic government in general:

Discipline is the sole ((sic.)) of an army, and that, without the habit of obedience, a mass assemblage of men in battle can never be more than a panic stricken mob. The fields of Princeton,

Spanish River, Camden... during the war of the Revolution not to speak of latter disasters, amply sustain the declaration of Washington, that such undisciplined forces are nothing more than a destructive, expensive, and disorderly mob. When danger is a little removed from ((i.e., the militia)), the well affected, instead of flying to arms to defend themselves, are busily employed in removing their families and their effects while disaffected are concocting measures to make their submission and spread terror and dismay all around, to induce others to follow their example.

Short enlistments and mistaken dependence upon our militia, have been the origin of all our misfortunes, and the great accumulation of our debt. The militia comes in, you cannot tell how; go you cannot tell when; and act, you cannot tell where; consume your provisions, exhaust¹²⁹ your stores, and leave you at a critical moment.

Thus, the Army defined the militia as simply "respectable mobs, useful, if at all, as auxiliaries for the regular troops."¹³⁰ Or more colorfully, according to Cooke, as a "swarming hive, catching horses, electioneering, drawing in auctions... electing officers, mustering in, issuing orders, disobeying orders, galloping about, 'cursing and discussin'... everything but actual hard fighting."¹³¹

The Army's position was strengthened by the militia's gradual disintegration as a military organization over the course of the Antebellum period. The militia, to a limited degree, was federalized under the terms of this legislation, all citizens between eighteen and forty-five years obligated to perform annual militia duty with their state forces. Ideally, the forces of the U.S. Navy, Army and Militia, "should be so organized and arranged, as to cooperate harmoniously and effectually, in all times of emergency, for

the promotion of the public security."¹³² In operation, however, the militia act was exceedingly decentralized in its effect: state armed forces remained largely independent, with little federal input as to such elementary matters as uniforms, weaponry or tactics. Initially, all equipment and arms were to be supplied by the militia-men themselves. The clear lack of enthusiasm for such a burden by the citizen soldiers led to state provision of military stores, followed, from 1808 on, by limited amounts of arms and accouterments by the federal government. As the sense of national insecurity from a European threat diminished following the War of 1812, the popularity of the militia correspondingly decreased.

An alternative to militia service, developed by the states themselves, in particular Massachusetts, from the 1820s on, was the establishment of volunteer companies. Such units satisfied the letter of the militia act, while at the same time, allowing the members of a volunteer company to create their own style of military service. Such companies, marked by gaudy uniforms, were a great hit on the two annual militia days, as would-be heroes tried not to embarrass themselves unduly by their pronounced lack of expertise in the manual of arms or the issuing of the simplest commands (frequently from printed cards). From a practical military perspective, both varieties of state troops were almost completely unfit to take the field as

combat troops. Moreover, the lack of integration with the regular Army further weakened the overall effectiveness of the national defense system or, as stated by Colonel Jonathan Winters, "without uniformity every military system must be a rope of sand."¹³³ Still another problem arose from the terms of service of militiamen in comparison to the volunteers. Militia units could only be led by their own officers, did not have to serve beyond their state boundaries and were not subject to the provisions of the Army Regulations. Volunteer companies, in contrast, were obligated, in periods of hostilities, to submit to either state or federal officers and could be employed in military operations beyond their state borders. The unpleasant possibility of being mustered into federal service was of little consequence compared to the decided social and political advantages one could reap as a member of one of the more elegant volunteer companies. While repeated calls bemoaned the deterioration of the militia and the numerous plans were trotted out to remedy this problem, no actual reform was in fact undertaken. There was lack of interest, save for a brief flurry of activity in the early 1840s, for an effective overhaul of the militia and virtually no real enthusiasm for the development of a truly centralized military reserve. Thus, as opposition to the standing army hardened, the only countervailing force to the regulars, the militia, was wasting away due to neglect.¹³⁴

The development of military professionalism was by no means a complete success. Certainly, the vigorous and frequently virulent politicking of even senior officers in the public domain, for position within the Army was not conducive to the achievement of political isolation of the military as required by the tenets of professionalism. In the 1820s and 1830s professionalism by-and-large was practiced by Army officers in their official capacity as soldiers but not in their own private sphere. Slowly, nonetheless, as more West Pointers entered the officer corps, professionalism grew substantially in dominating, however imperfectly, the perceptions and beliefs of the Army's leaders. Moreover, a strong, administratively centralized Army emerged, which unlike its pre-War of 1812 predecessor, was fully capable of warding off the attacks of its many critics and riding out fluctuations in popular opinion toward the professional military establishment. The Army which emerged in the years 1815-1821 would not alter its essential mission, its professionalism or its doctrine until late in the Civil War. It remained until then, a modern, progressive military service, the embodiment of the French-Austrian school of war.

CHAPTER II

THE FRENCH-AUSTRIAN SCHOOL OF WAR: STRATEGY, TACTICS AND CAVALRY WARFARE

Part I

Two great war-fighting systems emerged from the wake of the Napoleonic Wars. For the preponderance of the Nineteenth Century, military science in Europe and the United States was dominated by the tenets of the French-Austrian school of war.¹ Within its ranks could be numbered such luminaries of the new science of strategy as Archduke Charles of Austria, Colonel Henry Halleck of the United States and Colonel Patrick MacDougall of Great Britain. Its grandmaster was Baron Antoine Henri de Jomini of Switzerland and France, whose clear, precise and traditionally-grounded writings served as the foundation of the nascent concepts of military professionalism, science and education on both sides of the Atlantic Ocean.² The other school of strategy was that of Prussia, and was led by General Karl von Clausewitz, whose writings would only begin to have influence on the trans-Atlantic military community after France's crushing defeat in 1870. In the Antebellum era, Clausewitz was known to some American officers (his seminal treatise, On War, is listed in Halleck's bibliography to Elements of Military Art and Science for example), but generally was not

influential since the Prussian's writings constituted such a radical departure from the orthodox military tradition.³

The French-Austrian school of strategy constituted the conservative military reaction to the excesses of the French Revolutionary and Napoleonic Wars. It embodied the conservative reaction against the legacy of the French Revolution as manifested by the Congress of Vienna in 1815. Fundamentally, as the keystone of the French-Austrian school of war, Jomini and his followers concluded that the Napoleonic Wars were an historical fluke, a brief retreat into the ideologically-motivated style of the earlier Thirty Years War. They advocated that the Eighteenth Century limited-war tradition should be restored so that wars would once again be limited in purpose and scope. Essentially, the French-Austrian school failed to come to grips with the militant nationalism, the development of citizen armies, the importance of ideology and the increasing importance of economics and technology in determining the outcome of armed hostilities. These innovative aspects of the French Revolutionary and Napoleonic Wars were not comprehensible to traditionalists like Jomini, who expected the profession of arms to resume its function as an increasingly scientific and yet deeply heroic and aristocratic discipline.

As a second fundamental conclusion, future wars would not assume the colossal scale of the Napoleonic Wars. Army size would shrink to the proper size of fifty to two hundred

thousand men. Such small armies would accommodate fully the needs of professional military services with only limited requirements for reserve forces. Such numbers reflected the optimum size of a military force which could be commanded and directed with orthodox principles of command and leadership doctrine. A warrior commander could, with traditional line-of-sight techniques and without the necessity (or nuisance) of a large staff and more complex, sub-army formations such as divisions or corps, direct no more than fifty or so thousand men. Essentially, the warfighting system of the Antebellum American Army was that of the French-Austrian school. In turn, the French-Austrian school, in the main, was a slightly updated version of Eighteenth Century limited war. The goal of limited warfare was to minimize, to the greatest possible extent, the cost to society of war by insulating it from its worst and most destructive effects. This same goal motivated the professional soldiers of the post-Napoleonic era, in their quest for a cleaner, more scientific warfare.⁴

Strategically, warfare was, from the Seventeenth Century on, essentially a function of siegecraft until the French Revolutionary and Napoleonic Wars. None of the uncertainties or hazards of pitched battle in unfamiliar enemy country were present in a well executed siege. The geometrically precise techniques of siegecraft were certain and highly effective. Armies on the move, on the other

hand, were subject to an iron law of declining effectiveness, as wear and tear increased, as the discipline of the parade ground flagged and as desertion increased. While siegecraft could, if bungled, result in an army penned between a fortress and an adversary's field forces, it was far less risky than open battle.

Still another brick in the foundation of limited war lay in the tactical movement of armies. Due to the pronounced limitations of Eighteenth Century drill systems, one army could not maneuver with sufficient dispatch or celerity to force a second into battle or even surprise it. Pursuit of a retreating foe was not feasible, save in the extremely rare case of a rout. The danger was that the pursuing army would be drawn out and extended over many miles, thus providing a very tempting target to the enemy.⁵

Army mobility was further imperiled by the paucity of good roads and navigable rivers, a problem which only began to be solved by the close of the Nineteenth Century. Maps were in short supply and of exceeding poor quality. Principles and techniques of army direction were those of line-of-sight command; the warrior commander was, due to the primitive quality of signal communications and the absence of staffs, personally required to lead his men into combat. Arms technology placed limitations on the nature of war. The flintlock musket and bayonet combination, mandated the use of highly trained and disciplined soldiers; the close

order nature of battle in these years, compelled by the limited range of the musket, resulted in the frightfully high average casualty rate of between thirty and forty percent per battle. The need for highly-disciplined, veteran (most men were in their mid-thirties) soldiers led commanders to place a premium on experience over youth, proficiency over agility and strength and discipline over innovation.⁶ The combination of all of these varied factors, in conjunction with the limited financial resources of agrarian, pre-industrial states and the scarcity of all kinds of military resources, established a strong inclination against the free expenditure of manpower in battle.⁷

The French-Austrian school of war, however, did not simply revive Eighteenth Century warfare in total. Instead, they forcibly grafted upon this earlier military doctrine Napoleon's emphasis on the offensive. The defensive character of limited war was thus augmented, if only in spirit, by a new emphasis on the offensive; or as forcibly stated by Jomini:

Battle once resolved upon, be the first to attack; if the defensive is to be avoided in the general conduct of war, it is entirely unreasonable in action. It is a known fact that the offense, besides its tactical advantages, excites the ardor and courage of the men. Thus, when compelled to fight, always advance towards the enemy, unless you are under the cover of impregnable entrenchments, and even then always manage some outlets that will allow you to debouch from them.⁸

The fundamental maxim of grand tactics, according to American military writer Jacob K. Neff, was "to attack the most vulnerable point of the enemy, which conquered, would be the most decisive in terminating the war."⁹ At the same time however, the goal of war remained firmly within the limited war tradition--competitive states resorting to the use of armed force, when other methods had failed, to redress grievances against their neighbors or for limited strategical gain such as acquiring, a valuable port or a desirable treaty concession.¹⁰

The French-Austrian school of strategy therefore fused the defensively centered concept of limited war with Napoleon's penchant, for offensive warfare.¹¹ The real failure of the French-Austrian school of war, in a strictly military sense, was in not understanding how the radical changes in tactics brought about by the French Revolutionary Wars and later exploited by Napoleon with such outstanding success, had in fact washed away much of the bedrock of limited war theory.¹² This failure of comprehension foreshadows the later problem, beginning in the 1840s, of how radical technological change, including armament, could as well change the practice and nature of warfighting.¹³

Contradiction was the hallmark of the French-Austrian school. What thus issued from this marriage of opposites was a system of war in which the attack was everything and in which the frontal assault was hailed as the true test of

an army's martial prowess. At the same time, however, this body of military science, with equal emphasis, counseled the studious avoidance of pitched battle. Combat was to be accepted only when one possessed a decisively superior tactical advantage. Furthermore, while championing the spirit of the offense, what would in time be called the elan vitale, war, in accordance with the tenets of Jominian strategy, was waged for limited political objectives and goals, in the classic Eighteenth Century manner.¹⁴

The competitive strategical system was that of Prussia and General Clausewitz. The Prussian school serves to highlight the deficiencies of their competitor's system. Inexplicably, it was one of Europe's most traditional and autocratic states that pioneered a wholly different school of warfighting. As the heirs to the grand legacy of Frederick the Great, the shattering defeat at Jena in 1806 by the upstart French armies was world shattering in its impact on the Prussian high command. It was almost incomprehensible to the senior Prussian army commanders how the ragtag, undisciplined citizen soldiers of France commanded by an ex-corporal could so totally whip the once pre-eminent military power of Europe.¹⁵ The basic premise of the revamped Prussian warfighting machine was completely contrary to the French-Austrian brand of military science. Wars were defined as being struggles between not only warring nations, but warring peoples as well. Consequently,

huge conscript armies would be required, dependent upon the availability of well trained, ready reserves; the regular army would therefore not bear the brunt of the war alone but instead would serve as the leader of a collective national effort. Fundamentally, the Prussian concept of war was militantly aggressive; the quaint gentlemanly notion of limited war being shunted aside. In addition, the concept of soldier as robot, as in Frederick's day was forever replaced by a new and radically different emphasis on teamwork. Prussia, became the prototype of the modern nation in arms, with the army on a permanent footing.¹⁶

United States Army warfighting doctrine was completely Jominian in the Antebellum era.¹⁷ Tactical theory, whether artillery, infantry and later, cavalry, were wholly based on standard French manuals, translated into English. Winfield Scott's 1818 and 1836 infantry manuals represented no more than formal ratification of the 1816 and 1833 French works.¹⁸

Part II

The classical tradition of mounted warfare constituted a very traditional and aristocratic body of military doctrine, increasingly out-of-place in the post-Napoleonic era of scientific warfare.¹⁹ The cavalry was traditionally regarded as morally superior to all other branches of army service on the ground that it was blessed with inherently

greater endowments of aristocratic virtue, honor and elan than the more plebian infantry or technocratic artillery. The hallmarks of the mounted service were its zeal, its nobility, its richer sense of honor and its superior style and audacity.

The golden or classical age of European cavalry ran from the 1640s to 1815. In the mid-Seventeenth Century, Gustavas Adolphus of Sweden almost singlehandedly resurrected the use of cavalry as an effective tool of war. Prior to the classical age, cavalry had been in a state of severe decline. Its utility as an effective military weapon had withered due to the introduction of vastly improved missile weapons and the revival of the phalanx. Gustavas, through the development of combined arms doctrine, developed a means of redressing the balance of warfare so as to allow for a renewed, if more circumspect, role for mounted troops. Small light-weight cannon (falconets) were introduced in combination with detachments of musketeers to provide direct fire support for the Swedish cavalry. While this technique, due to improvements in artillery, of mixing infantry and cavalry in the same tactical formation, below that of the division was declared taboo by later cavalry theorists, it was nonetheless, a significant break-through in mounted warfare in its day. The key to Swedish cavalry success lay in this effective use of missile fire in disrupting opposing infantry formations prior to launching the horse soldiers on

their headlong, and hopefully, decisive charge. The net effect was a dramatic revival of cavalry effectiveness.²⁰

Insofar as the specifics of mounted warfare were concerned, Gustavas made a crucial advance, perhaps the single most significant one prior to the Civil War, in cavalry organization by reworking his horse soldiers into a disciplined and controlled fighting force. In order to maximize their shock potential, Swedish cavalry was reorganized into formal military units, expressly designed to engage the enemy as a tightly disciplined and controlled military force and not as a mob on horseback. To this end, cavalry was, for the first time, deployed in a linear formation of three ranks, replacing the traditional, densely clustered cavalcade assemblage. Tactically, cavalry deployment would, over the next two-hundred-and-fifty years, be largely a matter of gradually reducing mounted formations to double and single rank formations. In regards to armament, Gustavas authored a revival of the arme blanche, or in this case, the saber, as the quintessential cavalryman's weapon, a position that the sword would retain into the 1930s.²¹

The next great era of cavalry development was initiated by Frederick the Great of Prussia. Inheriting one of Europe's worst mounted services, noted for fat troopers on slow plow horses, Frederick transformed his cavalry into the most effective horse units ever created in the classical

tradition. The key improvement lay in the use of artillery. Specifically, Frederick created the first true horse artillery. Consequently, the Prussian mounted service was provided with its own organic fire support. Horse artillery consisted of small, highly mobile cannon drawn by teams of fleet horses bestride which rode the gunners rather than being transported in a separate wagon. Thus hard-moving mounted units, for the first time, were assured of having ready artillery support capable of marching their own high rate of movement. This system represented a further enhancement of the crucial principle of combined arms; tactically, the horse artillery served to pulverize opposing infantry formations so as to facilitate an effective cavalry attack.²²

Frederick's cavalry attained a level of training and organization never achieved before or since by classical European mounted units. Due to the efforts of the first military veterinary service and the first army breeding farms, the Prussian cavalry was provided with excellent horses. Tactically, this advantage translated into an ability of Prussian horse units to charge exclusively at the gallop, over unprecedented distances of up to eight-hundred yards. Such breakneck speed allowed the Prussian mounted troops to reach opposing infantry and artillery before a second volley could be discharged against them. The trend toward placing primary emphasis on the arme blanche as the

cavalry's weapon, was continued by Frederick; pistols and carbines were therefore relegated to such secondary tasks as reconnaissance and guard duty. To enhance the cavalry's shock effect, Frederick popularized the trend toward outfitting the largest percentage of his troopers as heavy cavalry or cuirassiers, so named due to their distinctive breastplates. It was in this period that the tendency toward specialization of cavalry into light, heavy and dragoon units jelled. Tactically, the cavalry, under Frederick, continued to place a key emphasis on the charge; all other duties being demoted to a distinctly secondary role.²³ As the Prussian warrior king himself put it, laying down at once both the fundamental principle of cavalry warfare as well as its most salient and essential myth: "with the cavalry attack it is not the size of the horse but the impetuosity of the charge that turns the scales"....²⁴

The third and last great cavalry innovator was Napoleon of France. The pre-Revolutionary French cavalry was an exceedingly ineffective branch of service even though its schools of mounted warfare were without peer in Eighteenth Century Europe. The actual worth of French cavalry in combat, however, was negligible, due to exceedingly poor horseflesh, deficient organization and mediocre officers. The key changes introduced in the French cavalry by Napoleon lay mainly in organization (for the first time mounted units were concentrated into brigade and even divisional size for-

mations), unit specialization and the strategic application of mounted troopers in intelligence gathering. At no time during the assorted Napoleonic Wars did French mounted units enjoy the benefits of prime quality mounts or even an adequate supply of horses of any kind. Correspondingly, charges had to be made exclusively at the trot rather than the gallop and the employment of cavalry in battle was held to a minimum, so as to keep as many animals fit as possible. Tactically, Napoleon authored no new model of mounted warfare. Rather, as in other tactical aspects of war, Napoleon was content to borrow wholesale from the earlier French Revolutionary generals. Napoleon simply concentrated much more of everything--cavalry, artillery and infantry--in his battles, relying on his personal brilliance at tactical and strategical management.²⁵

The overriding factor in determining the way that cavalry was utilized in battle was the type of armament it carried. The cardinal weakness of mounted troops, was in fact, its extremely ineffectual armament. Granted that all weapons were exceedingly limited in range and lethality (some infantry commanders, for example, considered the musket little better than a fire stick, useful for making a disquieting noise and slightly more so, as a convenient place to attach a bayonet), cavalry armament was even less effective. Three distinctive types of weapons were employed by mounted troops: firearms (pistols and carbines), lances

and swords. In determining weapon effectiveness, writers of this period fused technical performance with perceptions of how such a device stood in relationship to such aristocratic values as an elan and honor. Universally considered distinctly inferior to the lance of saber, firearms were largely confined to secondary tasks such as scouting and picket duty and thus occupied the lowest rung in the hierarchy.²⁶ Basically, "the pistol can only be considered as a weapon of necessity," according to Count von Bismark of the Prussian cavalry, for "its fire is uncertain, short, and seldom efficacious."²⁷ As for the smoothbore carbine or musketoon, it was "an important weapon for the attack of the skirmishers in extended line," but otherwise not a useful cavalry weapon.²⁸ Only the lowly, jack-of-all-trades dragoons were customarily equipped with the carbine and in turn expected to fight, in a fashion, while dismounted. The true cavalryman, however, had little, if any, affection for this weapon and would have fully concurred with Jomini when he wrote:

I do not know what the carbine is good for; since a body armed with it must halt if they wish to fire with any accuracy, and they are then in a favorable condition for the enemy to attack. There are few marksmen who can with any accuracy fire a musket while on horseback and in rapid motion.²⁹

This opposition to firearms was rooted in cavalry history and experience. Gustavus's revival of the arme blanche was done precisely because of the pronounced

inaccuracy and lack of range of the firearms of his day. The horse pistol was a true monster of a weapon. Virtually a miniature cannon, it weighted up to six pounds (about the same as a modern infantry rifle), had a hellish kick to it when it indeed actually discharged and its effective range was less than fifteen yards. The butt of the horse pistol was therefore usually bulbous in shape and heavily weighted so that it could easily be wielded as a club for the purpose of bashing an adversary's skull. Otherwise, one literally had to have the barrel touching one's opponent in order to insure registering a kill when discharging this gun. Furthermore, attempting to fire a pistol accurately while sitting astride a moving horse at the trot, let alone at the gallop, while simultaneously attempting to stay in formation bordered on the impossible. Trying the same stunt with a musketoon simply lay beyond the province of most mortals. As for the effective range of the smoothbore carbine it was at best no more than seventy-five yards. Since both species of firearms were flintlocks, with an exposed primer for the ignition powder for the primary charge inside the weapon, connected by a touchhole, they could never be employed in adverse weather. Still another shortcoming was the ever present danger that a poorly loaded gun, or one with an inferior grade of powder could easily blow up.³⁰ This lack of firepower of traditionally armed cavalry produced, out of experience, the following maxim of war, as stated by

Lieutenant-Colonel George T. Denison of the Canadian Army, that cavalry "has no fire, and therefore is not suitable for defense, and can only resist an attack by making an anticipatory onset."³¹ Gustavus's technique of interspersing musketeers among his mounted squadrons or Frederick's development of horse artillery were no more than partial solutions to this pressing lack of firepower or mounted units. Thus, horse soldiers were compelled to rely largely on edged weapons, best suited for use in the charge.

An alternative, and far more noble, cavalry weapon was the highly controversial lance, which reappeared in Western Europe in the middle of the Eighteenth Century. Its immediate origin lay with the Asiatic, semi-nomadic tribesmen of the Polish and Russian steppes. Made of hardwood, preferably oak or ash, it featured a sharpened metal tip and frequently as well, metal sheathing for the forward third of its length so as to prevent it from being hacked off by a sword. Such weapons were invariably adorned with the colorful regimental pennant. Precisely due to the lance's superior length and its supposedly greater fear-generation capacity than the saber, more than a few cavalry commanders preferred to send their lancers in first against the enemy line, followed by the heavy cavalry. This greater psychological terror of the lance was a result of the "apprehension of being run through ((which)) has a powerful effect upon a man."³² But only a few zealots, at any given time,

ever believed one could actually fight a cavalry melee with lances against sabers and have the former prevail. The lance was simply too clumsy and too unwieldy for close-in, mounted horse-to-horse fighting.³³

Specifically, "a lance is useless in a melee", according to cavalry expert Captain L.E. Nolan of the British Army, "the moment the lancer pulls up and impulsive power is stopped, the instant the power of the weapon is gone."³⁴ The lance was a wholly offensive weapon according to Bismark, "only applicable to the attack and the charge."³⁵ A major disadvantage of the lance was that it took far more time than the customary two years of basic cavalry instruction to train a trooper in its use. "This is a most efficient weapon when used by a thoroughly trained man," cautioned Bismark, "but in the hands of new levies it is perfectly worthless."³⁶ The lance enjoyed fits and spurts of enthusiasm by rather fickle cavalry leaders. In general, it was not terribly effective; its limitations virtually outweighed, in practical terms, its alleged frightfulness. Yet it possessed a strong visceral appeal to the aristocratically minded professional cavalry officer which transcended such mundane issues as tactical effectiveness.³⁷

The premier cavalry weapon was of course the arme blanche: The saber or sword. In order to master this deceptively simple weapon, some nine months of intensive practice was devoted to learning the innumerable intricacies

of the saber dance or drill. To the popular mind, fancy uniforms, mighty steeds and the flashing glint of cold steel constituted the images of what cavalry should be. To extremely conservative cavalry commanders of the Eighteenth and Nineteenth Centuries, the saber was without peer; the pistol and the carbine second-rate interlopers of limited utility. Such perspective, which at times bordered on the mystical, did in fact make perfectly good sense in an era of exceptionally short range muskets and highly exposed, tightly packed infantry formations; an age in which the cavalry still had a fair chance of succeeding in its role as shock.³⁸

Even in the Eighteenth Century, the saber was held to be more useful for the infliction of psychological rather than physical injury, but the droit and effortless motion of the swordsman on horseback is far more the stuff of legend than of historical reality. Such feats were perfectly possible if one's target were meekly standing still, one's mount not unduly active and one's weapon indeed had an edge on it. Such combination of fortuitous circumstances was all but unheard of in the customary melee or in cavalry versus infantry engagements. The horse provided a very unstable platform; the trooper in battle was in a constant state of motion as were his mount and his adversaries. A goodly portion of the saber dance was directed to training the would-be trooper how to fight in the environment of several

different but interrelated planes of space with geometrically precise patterns of sword play in the course of the very jumbled and exceedingly disorienting cavalry melee. Rarely did a trooper have more than a few opportunities for a head-on clear shot. Rather, the norm were glancing blows which rarely proved fatal or even disabling. The traditional heavy cavalry garb afforded ample protection against the saber, further diminishing its effectiveness. Moreover, it was virtually impossible to maintain a truly sharp edge on a saber while in the field. And it was deemed a breach of the rules of war to employ a grinder to give a sharp edge to a sword.

Despite the clear ineffectiveness of the saber, cavalry men remained, in effect, spiritually wedded to the arme blanche. Even the later introduction of revolvers and breechloading, magazine carbines failed to shake most cavalry leaders in their faith in the deadliness of cold steel. The mystical devotion to the saber long after Samuel Colt had manufactured his first cap and ball revolver had little if anything to do with a carefully reasoned and rationally based evaluation of the comparative merits and demerits of each category of cavalry weapons and the corresponding tactics that would best exploit their particular characteristics. Rather, from the mid-Seventeenth Century on, the cavalry branch of service came to be dominated by a very aristocratic brand of officer, self-

cloistered as it were from the disagreeable changes in the technology of war, beginning with the introduction of the flintlock musket and running through the more deadly by-products of the Industrial Revolution. This overwhelming commitment to tradition regardless of military and social change was the hallmark of the blueblooded European and American cavalry officer.³⁹

The types of cavalry armament described above, engendered the development of specialized mounted formations tailored so as to enhance either a particular weapon or a specific tactical role. What were in effect the equivalent of today's main battle tank were the armored cuirassiers or heavy cavalry. Out of necessity, as well as to enhance their shock effect, the cuirassiers rode the largest and heaviest horses. In the years immediately preceding the Civil War, considerable debate raged among cavalry experts as to the merits and utility of the cuirassiers. The crux of this issue was whether the advances in weaponry in the 1850s, in particular the Minnie bullet rifle, would so shift the balance of tactics in favor of the infantry as to liquidate the shock function of heavy cavalry altogether. This controversy was the leading issue with cavalrymen on both sides of the Atlantic as to the future character of their branch of service. The minority view was propounded by, in the main, light cavalry officers such as Captain

Nolan, who rather caustically dismissed the worth of heavy cavalry when he wrote:

Composed of large men in defensive armor, mounted on heavy, powerful horses are held in hand for a decisive charge on the day of battle, and their horses are so deficient in speed and endurance, being so overweighted that they require light horse to follow up the enemy they had beaten.⁴⁰

The scantiness of actual battlefield experience as to the deadliness of the weapons served to undercut the credibility of the position of the light cavalrymen. Moreover, the considerable hold of tradition on cavalry doctrine further hindered any effort at modernizing mounted warfare. J. Roemer, of the Dutch cavalry, and a passionate proponent of the cuirassiers as the elite of the mounted service, rejected the minority's position as unsound:

...substituting fervid inclination for cool judgment, they have concluded that henceforth there is need but for that one kind of cavalry, and the one in whose welfare they are particularly interested.⁴¹

The dragoons were proper members of the cavalry fraternity, albeit of distinctly lower military status. While trained to fight as skirmishers when dismounted, the signifying characteristic of the dragoon was that he could, in a pinch, deliver a charge, in lieu of heavy cavalry. In addition, the dragoons could be gainfully employed for reconnoitering and camp security duties. Historically, dragoons, named for their early hand armament or dragons, first appeared in the English and French armies in the

Fifteenth Century as mounted infantry. Such units were originally created to provide a more versatile and cheaper form of horse soldier than the mounted knight. By the Nineteenth Century, however, the dragoons had been largely shorn of their tainted infantry traits. Correspondingly, their prowess at dismounted combat declined as mounted duties took increasing importance in the role of the dragoons.⁴²

The dragoons were therefore not mounted infantry in the classical European definition. Technically speaking, mounted rifles or infantry (depending on the kind of small arms carried) were hastily formed outfits customarily created due to a pressing local shortage of full-fledged cavalry units. Mounted infantry, as understood in the first half of the Nineteenth Century, were essentially ground pounders inelegantly perched on whatever horseflesh was readily available. Under no circumstances were jerryrigged outfits intended to mount a real, saber waving cavalry charge. Rather, as pointed out by Colonel J. Lucius Davis, "MOUNTED RIFLES differs from all other cavalry in arms, manoeuver and in habitually dismounting for the combat, their horses chiefly the means of rapid locomotion."⁴³ Such formations were rarely, if ever, equipped with the proper regalia and accouterments of "real" cavalry. Instead, the mounted infantryman's equipage was standard issue for foot soldiers plus harness, saddle and perhaps a short sword.

Spurs, the earmark of a true horse soldier, were seldom if ever bestowed upon the lowly mounted infantryman. Mounted infantry proved especially useful in European colonies where imported horses did not fare as well due to local diseases and because the indigenous horsemen were only rarely organized along lines approximate to classical theory.

Finally, there was the light cavalry. In terms of the peerage of the European mounted services, these sportive and spunky lads were, in effect, the equivalent of the traditionally good-hearted but naughty younger sons of the aristocracy. Awash in splendor, overloaded with color and marked by a surfeit of cheek and temerity, these daring descendants of the cavalier tradition were generally not particularly effective in their designated role of harassment and reconnaissance. This was due to the recurring habit of such units, in peacetime, of bulking up, in terms of horse size, into the range of the heavy cavalry; the British Army was clearly the worst offenders in this regard. The very embodiment of aristocratic frivolity, the light cavalry were markedly different in spirit and appearance than the somber, stout oaks of the heavy cavalry, which were the personification, as it were, of respectability and order. The popularity of light cavalry was subject to recurring shifts of enthusiasm on the part of military leaders due the waning of combat experience following a war and the gradual reassertion of tradition as dominated in

peacetime cavalry planning. Battlefield experience tended clearly to show the ineffectiveness of heavy cavalry and in turn, suggested that the most profitable application of mounted units would lie in scouting, which was of course the suit of the light cavalry. Doctrine, in contrast, overwhelmingly rested on the side of tradition and of the cuirassiers and thus trumpeted the crucial role of cavalry as being the forceful and expert delivery of the charge.

Light cavalry units, however, possessed other than strictly military virtues. For one, they were socially attractive to the upper class, what with their largely patrician officers (it took considerable sums to maintain a stable of fine horses, a retinue of servants, a couple of closets of exquisite uniforms and to bear the heavy burden of monthly mess fees) and their lush finery and splendid pageantry. No better exponents could thus be found of the romantic style of military service in the first half of the Nineteenth Century. The light cavalry also afforded an excellent place to pigeonhole dimwitted sons of distinguished officers and the less mentally agile youth of the aristocracy.

The hussars and chasseurs, the species of light cavalry most frequently encountered in European armies, and functionally interchangeable in nature, were intended to perform the more venturesome duties of cavalry. Thus their forte was the collection of battlefield intelligence, escort and

patrol duty and to a lesser degree, the execution of the shift, dauntless raids on the enemy's flanks and rear. In addition, the light cavalry was also most regularly assigned the grinding and highly unpleasant task of providing local army security as pickets and vedettes. The romanticism of the light cavalry was well described by Mahan, himself supposedly a very practical engineer:

The dashing bold hussar, the epitome of military impudence and recklessness...should present these qualities in a sublimated form on the field. Regardless of fatigue and danger, his imagination should never present to itself an obstacle as insurmountable.

Furthermore, the light cavalryman should always attack his foe, "with a falcon's speed and glance upon his quarry, however it may seek to elude his blow, such be the hussar."⁴⁴

Cavalry was traditionally defined as an intrinsically offensive tool of war, in that it "is always weak on the defensive."⁴⁵ Consequently, according to Major William Gelhorn, "a body of cavalry which waits to receive a charge of cavalry, or is exposed to a force of infantry, or artillery, must either retire, or be destroyed."⁴⁶ Since the "paramount purpose of cavalry is to attack," it was a fundamental maxim of cavalry tactical doctrine, as here stated by Roemer, to "always husband the strength of the horses and never expend more of it than is necessary for the object aimed at."⁴⁷ The charge of horse was not dissimilar to the one shot musket: once a round was discharged or a

cavalry attack launched, in order rapidly to reengage the enemy, a fresh line had to be brought up or new mounted units unleashed at the enemy. The thundering cavalry attack was, in effect, a race against unit disruption and exhaustion, particularly with the heavy cavalry. The longer the distance over which mounted units charged, the greater the fatigue of the animals and, in turn, the lower its combat effectiveness. Similarly, upon impact with the enemy's line or mounted units, the assaulting cavalry was rapidly broken up, with tight formations quickly replaced by small packets of troops engaged in what were basically, private duels with their foes. Thus, in the course of a battle, cavalry units could be realistically expended only a couple of times at best, before becoming effectively hors du combat. Moreover, while a cavalry attack or melee was customarily brief in duration, no more than half an hour at most, mounted units, unlike the infantry, required almost an entire day to reform themselves for further action. The type of terrain upon which a battle was fought controlled, to a very large extent, the deployment and application of cavalry theory; to use mounted units on imperfect ground was to cause the fragile yet mighty power of the horse soldier to be disrupted or even broken. "The horse's power...", according to L.V. Buckholtz, "...is effective only by rapidity, and therefore, motion is the true element of cavalry." Furthermore, "it is only offensive, and depends entirely on the

contours of the ground, it is invincible on level ground, but useless in broken...land."⁴⁸ It was this fundamental sense of risk and imperilment, embodied in the vertiginous nature of the charge itself, a gamble with the fates as it were, that gave cavalry its distinguishing characteristic for being audacious and undaunted in battle, qualities that had particular attraction to the aristocratic military elites of this era.⁴⁹

Cavalry-versus-cavalry engagement were thus, by definition, a higher sphere of battle than either cavalry versus infantry or artillery engagements. Such a clash of opposing cavalry was as much a duel as a battle. It was to a very great extent, a test of one's mettle as a horseman, of a unit's prowess and fortitude. Success, since "the advantage is always with the attacking party" counselled Captain Emric Szabad of the Italian Army, thus depended upon the execution of a near flawless charge.⁵⁰ Or as Roemer put it,

A charge is a rapid and impetuous onset of a body of cavalry upon the forces of a body of cavalry upon the forces of the enemy. To be useful, it is necessary that the horses be at their utmost speed at the moment of collision, and if arrived well aligned and in a compact body, the shock must... overthrow everything that happens to stand in their leap.⁵¹

Courage, impetuosity, verve and honor were tested to the limit in such an engagement. "Cavalry", according to Nolan, "seldom meet each other in a charge executed at speed; the one party generally turns before joining issue

with the enemy, and this often happens when the line is unbroken and no obstacles of any sort intervene."⁵² In regards to the broader tactical aspects of battle, cavalry was deemed in the post-Napoleonic era as a necessary adjunct to true victory.⁵³ Thus while infantry was the most flexible and cost-effective combat arm, the cavalry was, as stated by Halleck, "indispensable for beginning a battle, for completing a victory, and for reaping its full advantage by pursuing and destroying the beaten foe."⁵⁴

The moral superiority and intrinsically greater virtue of cavalry served to grant true nobility and honor to a victorious army. Of course infantry and artillery were acknowledged as capable of achieving great tactical success in the absence of cavalry yet to the early professional military leaders such victories were viewed as tainted by lack of true elan and mettle.⁵⁵ Moreover, the lack of pursuit afforded by mounted troops was seen as robbing the victor of long-term success, a point well stated by Roemer:

Battles have been won with little or no cavalry, but they have always proved sterile and without results. The enemy is repulsed, but not destroyed; and after a few days reappears in the field with undiminished numbers, and ready to renew the contest.⁵⁶ [Thus,] no victory is brilliant which is not followed up by cavalry, and no battle is really destructive which is not determined by them.⁵⁷

If the engineer was the most advanced and scientific type of officer in the Antebellum era, then, in terms of military professionalism, the officer of horse was the most

traditional in character.⁵⁸ Or as Captain Nolan put it so ably:

With the cavalry officer almost everything depends on the clearness of his coup d'oeil, and the felicity with which he sizes the happy moment of action, and when once action is determined upon, the rapidity with which his intentions are carried into effect. There is little time for thought, none for hesitation; and once the movement is commenced, its successful accomplishment is the ([only]) thought allowed to pass through the mind of the commander.⁵⁹

There was a virtual timelessness to many aspects of the leadership style of the cavalry officer. While separated by a hundred years and by many military advances and numerous battles, there was nonetheless a deep kindred spirit between brethren officers of horse, of the early Nineteenth Century and those of the early Twentieth. In contrast, the perceptions and style of officership of engineer or infantry commanders changed markedly. The cavalry remained, to a much greater extent, wedded to their pre-professional, warrior traditions.⁶⁰

The belief in the moral superiority of cavalry had its roots in the uniquely hazardous nature of mounted duty. "Infantry, or artillery in position may passively stand fire;" instructed Roemer, "to strike down his adversary, the horseman must close, and the chances are that he receives a blow in return for the one he deals."⁶¹ Yet, romanticism dominated the conceptualization of the characteristics of mounted warfare. There was clearly a higher social connotation associated with horse soldiers. In other words, horses

and thus cavalry were the badge and the province of true societal elites; infantry, in sharp contrast, were representatives of the plodding, lethargic masses of the peasantry. The bond between rider and mount was esteemed as being a truly spiritual relationship, one connoting not merely higher social standing but also greater moral force. On a practical level, cavalymen were trained to regard their mounts as merely another piece of equipment and hence, disposable. Yet virtually all cavalymen would have endorsed the concept, articulated by Buckholtz, that "man and horse are a unity, the brute force submitted to the rational will,....⁶² The very essence of cavalry theory was that it was an art and not reducible to a science. Thus the nature of cavalry, quite unlike other aspects of war and the profession of arms, by definition, could not be translated into mere mechanized routine or subject to scientific experimentation. Expressions by military writers of the efficacy of cavalry were really statements of faith; of a deep, underlying, pre-professional commitment to traditional warrior values.⁶³ Naturally, therefore, since cavalry was defined by its advocates as a way, a path and a tradition, such spiritual growth, warrior prowess and expertise in horsemanship could not be readily taught or learned. Hence, reliance on militia or hastily organized and improvised cavalry units, save for the most elementary tasks was

defined as sheer folly, a point very forcibly stated by Roemer:

When we reflect that it requires threefold more time to teach a man to ride and have a perfect mastery of his horse than to teach a foot soldier his complete drill and that when the horse soldier is thus far instructed he has still a vast deal to learn before his education is complete, it becomes evident that the hurried augmentation of cavalry forces should be scrupulously avoided. A regiment of infantry may be speedily increased without greatly impairing its usefulness in the field, by incorporating a certain number of recruits, most of whom had probably served already in the militia; but a few half-drilled horsemen, a few unbroken horses, will throw a whole line into disorder, and mar every effort of the most able commander.⁶⁴

This crucial rule of cavalry organization was fully supported by Secretary of War Lewis Cass:

Untrained men on untrained horses, form a combination of awkwardness that can ensure nothing but extravagance and disgrace.⁶⁵

Cavalry warfare stood aloof from the post-Napoleonic surge of professionalism and military science. Yet as an elite military force, cavalry served as a living expression of the essential aristocratic, warrior values that ultimately were the bedrock of the new mathematic style of war. In time, however, while the other arms of service prospered from technological advances engendered by the Industrial Revolution, the cavalry withdrew behind the ramparts of tradition. The increasingly evident obsolescence of cavalry, due to enormous increases of firepower, were, in the main, countered by cavalry leaders with re-expressions of the past triumphs of Gustavus, Frederick and Napoleon.

In effect, the cavalry was slowly becoming a prisoner of its myths and customs, refusing to accept the necessity of change. Yet this was not blind military stupidity, until perhaps late in the Nineteenth Century, when cavalry zealots began pushing for the successful revival of the lance in face of the growing adoption of the Maxim machine gun. In the first half of the Nineteenth Century, while the efficacy of horse soldiers was indeed dimming, the recognition of this fact, was by and large still many years away.⁶⁶

Chapter III

THE RE-EMERGENCE OF THE AMERICAN CAVALRY -- FRONTIER SECURITY AND THE PROFESSIONAL ARMY

Part I

Cavalry, in the years prior to John C. Calhoun's tenure as Secretary of War, enjoyed only slight support from either the national political leadership or the Army's commanders. General George Washington, during the Revolutionary War, opposed the development of a large American cavalry arm. The objection, drawn from classical European cavalry theory, was based upon the less-than-ideal terrain of the eastern United States. The absence of broad expanses of flat, open country and the existence of dense woods, hilly terrain and thick swamps barred the widespread use of mounted troops. This basic rule became ingrained in United States tactical doctrine through the early years of the Civil War.¹ Two collateral arguments against political support for mounted forces were commonly raised: first, the significantly greater expenses of maintaining cavalry units, which were of lower tactical utility than infantry; and secondly, the traditional association of horse soldiers with aristocratic power. The first objection was unquestionably the more tan-

gible of the two. Cavalry units were nearly twice as expensive to maintain as infantry formations of equivalent size.

Nonetheless, the pre-War of 1812 Army had occasionally experimented with the use of cavalry. The first post-Revolutionary war cavalry unit was a squadron (about two companies of one hundred and sixty or so officers and men) created by Congress in 1792. This small force was subsequently raised to full regimental strength. The legislative warrant for this unit expired in October, 1796, leaving the Army with only the original two cavalry companies. Indian unrest in the Old Northwest Territory occasioned the creation on July 16, 1798 of six additional companies, merged with the existing force into a single mounted regiment. Due to the needs of frontier security, Congress on March 2, 1799 authorized three regiments of light dragoons, but these units never reached their targeted strength. The first era in the history of the United States Army's cavalry forces ended on March 16, 1802 with Congress's passage of the Jefferson administration's Peace Bill. This legislation abolished all of the Army's cavalry units. Due to increasingly troublesome relations with Great Britain, Congress, on April 12, 1808, legislated a general expansion of the Army, including a new regiment of light dragoons. This unit, however, remained dismounted until the outbreak of hostilities in 1812, due to financial restraints. Four years later, on January 11, 1812, a second light dragoon regiment was cre-

ated for duty against the British. "Having proved almost unserviceable in the several campaigns", according to Secretary of War Lewis Cass, "the dragoons were disbanded at the peace with little or no remonstrance from any quarter.² Thus, in March, 1815, Congress abolished the light dragoon regiments in conjunction with a general reduction of the Army. As before, the objections were tactical, fiscal and political in nature.³ As Secretary of War Lewis Cass put it:

Troops of the latter character ((i.e., cavalry)) have never done anything as yet... the greater portion of the country in the East is unfitted for its use in masses... there only small numbers would be needed....⁴

United States frontier security policy, particularly the role of the Army in the maintenance of order and Indian control underwent significant change during the Antebellum period. Prior to the War of 1812, as with most aspects of United States war policy, the precise mission of the Army as to the issue of frontier security was quite ill-defined. On occasion, as in the 1790's campaign by the Legion (the organizational precursor of the division) against the Indians of the Old Northwest Territory, the Army played the leading role in formulating and executing frontier security policy.⁵ In the main, however, prior to the War of 1812, the Army lacked a coherent mission in regards to the issue of policing the western and southern territories.⁶ After the War of 1812, however, the Army gradually assumed a

virtual monopoly of organized military power on the frontier. Thus, with brief and rare exceptions, principally during the Civil War years, the Army was gradually assigned the exclusive role of providing military protection to frontier settlers. The acceptance of such a responsibility, in contrast to the earlier mixture of militia and regular troops, was assumed reluctantly by the Army's leadership. To them the Army's mission, as a progressive, professional and French-Austrian military organization, was the defense of the nation against an invasion by a European power. Congress and, in the main, the President defined the immediate justification for the maintenance of a military establishment in ensuring the peace of the country's frontiers. Nonetheless, while unenthusiastic about being saddled with the duty of frontier security, the Army's leadership accepted this irksome, fatiguing and even dishonorable work as a kind of unofficial quid pro quo, a bargain as it were, between the Army and its civilian masters: the professionalization of the regular military service in exchange for the use of the Army in frontier security. In other words, the far greater fighting power and organizational effectiveness of the regulars, as compared to the militia, was accepted as essential for ensuring the successful pacification of the Indian, despite the resulting development of a strong professional Army. While this unofficial compact would be beat and challenged severely in the course of the recurring

and quite ferocious debate over the utility and even the legitimacy of the regular Army, it nonetheless survived more-or-less intact through the Civil War.⁷

Prior to the creation of the Civilian Indian Bureau in 1849, as a division of the Interior Department, the Army stood in the problematical role of being at once both the guardian of the Indian and the protector of frontier settlers. Such an ambiguous and potentially contradictory set of responsibilities would seem to have demanded carefully crafted policy guidelines for the frontier officer.⁸ Instead, officers were required to muddle along, protecting settlers, maintaining a semblance of order and all the while guarding the Indian from the designs of unscrupulous whites, particularly those engaged in the nefarious whiskey trade, with no clear guidelines. Or as Inspector General Edmund P. Gaines put it, with less than clarity, in 1821:

No specific instructions can be given to the commandants of frontier posts, to govern their intercourse with the Indians in their vicinity, so as to meet all the exigencies of the service. After receiving such general directions as the case admits they must be left to exercise a sound discretion, being careful to avoid all occasions of collisions and of involving the country in hostilities with them.⁹

Army frontier policy in the immediate post-War of 1812 years, during Jacob Brown's tenure as Commanding General, was essential and reactive in nature. The Army's field command structure was changed in 1821 from a North-South alignment to an East-West division of active combat forces. This

realignment was made in order to improve the Army's ability to carry out the task of frontier policing. In tactical terms, the new policy emphasized the establishment of a line of forts and cantonments along the principal rivers of the Mississippi Valley as far south as present day Arkansas and Louisiana and as far north as Minnesota. Water transport, via flatboat and more-or-less portable water craft served as the principal linkage between individual garrisons and frontier settlements. Essentially, there was the establishment of a firebreak between the white settlers and the western Indians. The problems with this wholly defensive approach to frontier security were numerous and substantial. Minuscule packets of infantrymen scattered over several thousand square miles, were simply too few in number and too widely scattered to be more than locally effective. A closely related problem was the inherent lack of mobility of the regulars. Water transport into the Indian country was usable only so long as the river systems remained navigable. The frontier Army, bereft of mobility and speed of movement on land, was incapable, with rare exceptions such as the 1819-1820 Yellowstone campaign against the Arikara and Sioux Indians, of mounting effective retaliatory strikes against marauders. A still larger failing of this static defensive scheme lay in the very nature of frontier settlement. The idea was to create a barrier between the Indians to the west of the Mississippi River network and the settlers to the

east. Moreover, eastern Indians would be forcibly resettled onto the western plains creating, as it were, a cordon sanitaire to further guard against attacks. In reality, the plan never succeeded. As soon as an Army post was established, traders and then pioneers would aggressively move beyond the effective range of the infantry garrison, fifty miles or so. During the 1830s a far more active and mobile frontier defense policy emerged during the tenure of Alexander Macomb and later, Winfield Scott as Commanding General of the Army. The primary hitch in implementing a more effective policy lay in overcoming Congressional opposition to the enlargement of the Army in general and in the creation of a cavalry force in particular.¹⁰

Notwithstanding the political and military objections to equipping the Army with a mounted component, demands for a cavalry force began to rumble eastward from the West from the 1820s on. One major source of political pressure for the establishment of a mounted unit stemmed from the growing Santa Fe Trail trade. Starting in 1823, the Missouri caravans for the first few years managed to complete their expeditions without any Indian interference. The caravans of 1825 and 1826, however, were both attacked by increasingly belligerent groups of Comanche and Kiowa Indians. In the main, such attacks were little more than nuisances. The merchant caravans, with over a hundred armed men and equipped with even small brass cannon, were quite formidable

as an armed force in their own right.¹¹ And, on the Mexican side of the border, the undermanned and poorly equipped light cavalry or pictadores, nonetheless provided a limited military force to cover the most dangerous leg of the journey.¹²

Many merchants involved in this commerce were either unenthusiastic or even hostile toward the idea of American Army escorts. However, such voices were a minority among the influential St. Louis merchants engaged in the Santa Fe trade. Ironically, the leading (and by far the most powerful) advocate for Army escorts, was Missouri Senator Thomas Hart Benton, the leader of Congressional opposition to the professional army.¹³ The sharpness of one member of the expedition, generated sufficient political pressure to compel the Army to provide an escort. In 1829 such an escort was provided, on an experimental basis, consisting of a detachment of foot soldiers from the Third Infantry Regiment commanded by an experienced Indian fighter, Major Bennett Riley. The fleet Indian tribes of the Southwest plains, such as the Navaho, Kiowa and Comanche, were undaunted by the presence of American troops. The infantry, "walk-a-heaps" to use the derogatory Cheyenne term, proved wholly ineffectual as a deterrent to the frequent hit-and-run raids on the caravan. What was so discouraging to the officers in command of the protective guard was their lack of mobility. As Major Riley put it with a deep sense of frustration:

Think what our feelings must have been to see the [Indians] carry off our cattle and horses, when if we had been mounted, we could have beaten them to pieces, but we were obliged to content ourselves with whipping them from our camp. We did not see any of them killed or wounded but we saw the next day where they had dragged them off. They have said sense ((sic.)) that our fire from the big gun ((i.e., a six-pounder cannon)) killed five or six.¹⁴

A similar sense of resignation at his inability to mount an aggressive pursuit was recalled by Major-General Philip St. George Cooke, then a second lieutenant and later, one of the leading Army cavalry experts in the pre-Civil War years:

It was a humiliating condition to be surrounded by these rasically ((sic.)) Indians, who, by means of their horses, could tantalize us with hopes of battle, and elude our efforts; who would insult us with impunity, much did we regret that we were not mounted too.¹⁵

No further effort was made to provide an Army escort on the Santa Fe Trail until 1833.¹⁶ Field performance clearly demonstrated the lack of tactical effectiveness of relatively immobile foot soldiers against the fleet Indians of the West. The result of such an ignoble performance of arms was even louder calls by Western politicians for enhanced military protection in the form of cavalry units.¹⁷ Leading the growing chorus of support for such units were such traditional opponents of a large standing army and military professionalism as Senator Benton and Secretary of War Cass, of the Jackson administration. Joseph Duncan, a Congressman from Illinois, on March 25, 1828, wrote to Major-General Ed-

mund P. Gaines, arguing for the formation of mounted units composed of "young men of vigor and enterprise, reared in the western country, acquainted with the Indian artifice and their mode of warfare, full of pride and patriotic spirit."¹⁸ Such units, embodying the full spirit of opposition to the regular Army, were claimed not only to be a more formidable threat to the Indians, but also far more responsive to the needs of Western pioneers.

By 1829 reports of difficulties with frontier security as then provided by small packets of relatively ponderous infantry manning static garrisons began to filter back east to an ever more receptive War Department. In April, 1830, Quartermaster-General Thomas S. Jessup, in a formal position paper, signaled the growing enthusiasm for the resurrection of a mounted arm. The problem, however, was the fear that a penny-pinching Congress would simply order one or more existing infantry regiments to be converted into cavalry units. Such a course of action would in no way address the critical lack of numbers of the Regular Army, increasingly burdened by the demands of frontier security. Moreover, infantry units, manned according to the tenets of limited war doctrine, were composed of the dregs and sweepings of society, hardly the kind of personnel required for what would be, according to European practice, an elite formation. Thus, as Jessup pointed out, there did in fact exist a paramount need for regular Army mounted units:

As well you might leave the defense of our maritime frontiers and the protection of our foreign commerce to the artillery stationed on our seaboard. The means of pursuing rapidly and punishing promptly those who oppress whether on the ocean or on the land are indispensable to a complete security, and if ships-of-war are required in one case, a mounted force is equally so in the other. Were we without a navy, pirates might operate with entire impunity, not only on the high seas, but in our very harbors, and within view of our forts. So, without a mounted force on the frontier south of the Missouri, the Indian confident in the capacity of his horses to bear him beyond the reach of pursuit, despises our power, chooses his point of attack, and often commits the outrages to which he is prompted by either a spirit of revenge or love of plunder in the immediate vicinity of our troops, and the impunity of the first act invariably leads to new oppression.¹⁹

The Black Hawk War of 1832 constituted the first significant military problem faced by the Army following the War of 1812. The suppression of the Sac and Fox Indians and their allies, demonstrated the need for a reasonably large and professional military force. The state and territorial militia units, in the main, proved ineffectual as military forces. Troops broke and ran, were far less than diligent in the pursuit of their duties and of course, were far less proficient than the regulars in the performance of tactical operations and in maintaining discipline. Still another major problem was the constant wrangling and less than fully cooperative behavior of many state, territorial and local politicians; General Henry Atkinson, in overall command, labored mightily to employ his militia troops, in conjunction with handfuls of regulars, to bring Black Hawk's

warriors under control.²⁰ The lack of sufficient numbers of regular troops and the resulting dependence upon militia forces, which prolonged hostilities and in turn heightened the cost to civil society, again, demonstrated to professional officers the clear need for an overall increase in Army strength. Thus the Army's leadership, in accordance with limited war doctrine, strongly questioned the wisdom of relying on ineffectual militia forces, the absence of which from the civil economy was costly and exceedingly wasteful.²¹

The Black Hawk War also demonstrated the need for a new Army mounted arm. The regular infantry were simply not fleet enough to pursue their adversaries; the Army was correspondingly dependent upon the availability of militia mounted infantry units to form the chase element in the order of battle. And as an Army officer put it, with a fair degree of frustration:

The war of last summer showed very clearly the impossibility of succeeding against the Indians with infantry alone. March after march was made by the regular troops without coming in contact with the enemy and it was only after many forced marches of the most harassing description that he was finally overtaken and brought to an engagement.²²

Limited funds were scraped together to mount a few companies of regulars as mounted infantry, but this improvised technique was not satisfactory. One of Atkinson's major complaints to Commanding-General Alexander Macomb was exactly this lack of mobility of his regular forces:

As the Regular troops had no means of transportation by land and our supply of provisions and munitions required protection; and feeling unwilling to leave my base of operations I fell back with the regulars to this place to act as circumstances might require; besides none but a mounted force could come up with the Indians, unless they made a stand to contest the point of superiority, which was not expected.²³

Heeding the wishes of his field commanders, President Andrew Jackson openly pushed for the re-establishment of an Army mounted force as a result of the tactical experience of the Black Hawk War. Congress, however, quite unlike Calhoun's days as Secretary of War, was now dominant in the determination of a national war policy. While it was increasingly evident that a cavalry force was needed, there was no consensus whatsoever in Congress as to the form such a unit should take. Congressman William Drayton of South Carolina expressed the recognition of Congress that the issue of cavalry forces for frontier security was indeed a pressing one:

It would have been a vain attempt to pursue the Indians who committed these outrages, for they were all mounted on fleet horses, while the troops of the United States consisted of infantry alone, and they were therefore compelled to endure all the insults and injuries so sure to arise from Indian hostility.²⁴

The 1832 Congressional debate on the formation of a cavalry arm reflected the broader debate over the standing army. The distinctly minority position in the House of Representatives favored establishing formal cavalry units as a full branch of the regular. As articulated by such

Congressmen as Dutee J. Pierce of Rhode Island and interestingly enough, former advocate of volunteer mounted forces, Duncan of Illinois, their position was expressly founded upon professional Army doctrine.²⁵ The majority perspective, to the contrary, was seething with opposition to professional military forces of whatever stripe. The regulars, as pointedly stated by Congressman John Carr of Indiana, were simply incapable of manning and operating any form of mounted force:

There was not... twenty of them ([i.e., regular Army troops]) who could ride a horse fifty yards, and if the Government should furnish them with horses, they knew nothing about taking care of them, and would destroy just as many horses as were put under their management.²⁶

Secondly, aside from the supposed lack of horsemanship of the regular Army, Congressional objections centered upon the very character and physical condition of line troops. Thus as the delegate from the Arkansas Territory, Ambroshe H. Sevier, critically noted:

What were the garrison troops? They consisted generally of the refuse of society, collected in the cities and seaport towns; many of them broken down with years and infirmities; none of them use to rid [(sic.)] nor in anywise fit for the service to be assigned them.²⁷

Finally, as passionately stated by Representative George Grennell of Massachusetts, the volunteer soldier, drawn from the environs of the frontier, would possess virtues and skills which would render him vastly more effective as an Indian fighter:

Frontier volunteer soldiers would "counter wile with wile, and frustrate one stratagem by another, and loss ((sic.)) upon those savage men their own schemes of surprise and blood."

Moreover, the frontiersmen-soldier would be intrinsically loyal; thus, unlike the scurvy lot of the regular army, such noble men could not be corrupted into following the trumpet call of some would-be Napoleon:

There was no danger that these farmers would become... ((tempted to join)) the flying corps... [by] a summer's term of duty in defense of their farms and their firesides.²⁸

On June 10, 1832 Congress authorized the establishment of a battalion of mounted rangers, signaling the victory against the regular Army. The rangers, numbering some six hundred officers and men and organized into six companies, was clearly not an orthodox, professional military outfit. Rather they constituted a unique federalized species of volunteer unit; the men were subject only to a single year of service and were expected to arm and equip themselves.²⁹ The problem was that this unit, expressly unprofessional in character, was certainly not the cavalry force sought by the Army's leadership. This rough-hewed, highly undisciplined assemblage, which saw no action against the Indians, was simply too irregular an outfit to be freely accepted into the professional ranks of the Army. This short-lived experiment, unsuccessful and impractical, succeeded, ironically, in providing the advocates of a regular mounted ser-

vice with the evidence necessary to prevail in Congress. Support for converting the mounted ranger battalion into a proper cavalry unit came from all quarters responsible for developing and implementing war policy in the Antebellum era. Captain Cooke, expressing the verdict of professional officers, curtly rejected the battalion as a military unit, with even less prowess in arms than some of the volunteer and militia units field in the Black Hawk War:

Of this corps (in justice not so formidable to its friends ((in Congress)) as a certain brigade of Illinois volunteers of notorious memory),... none more readily than myself would presume its requiescat in pace.³⁰

Similarly, Secretary of War Cass, reflecting a major shift in the war policy of the Jackson administration argued strongly for the creation of a full-fledged regular cavalry force, using of all things, the very rhetoric of military professionalism that he had so long been opposed:

Besides other important objects, it is desirable to preserve in our military system the elements of cavalry tactics and to keep pace with the improvements in them by other nations. The establishment of a regiment of dragoons would complete the personnel of our army, and would introduce a force which would harmonize with and participate in the esprit du corps so essential to military efficiency, and so easily... created by military principles.³¹

Congress as well moved to support the establishment of a regular Army cavalry service, following the complete failure of its non-professional mounted ranger battalion. The development of the new regiment of dragoons was spearheaded by Congressman Richard M. Johnson. Chairman of the House

Committee on Military Affairs and interestingly, a renowned former Captain of the Kentucky Volunteer Mounted Rifles. Johnson succinctly listed the numerous failings of the battalion of mounted rangers when he wrote:

...the organization of the present battalion of mounted rangers... does appear to the committee to be very defective. It must be evident from the constitution of the corps of rangers, and from the short period of their service, their efficiency will be but little superior to that of the ordinary militia -- every year there must be loss of time in organizing and recruiting the corps and the acquisition of the necessary experience and knowledge, besides it cannot be expected that their equipment and horses will be equal to those furnished by the public.³²

Congress, therefore, on March 2, 1833, passed an "Act for the more perfect defense of the frontiers," converting the battalion of mounted rangers into the (First) Regiment of Dragoons.³³ The creation of the Regiment of Dragoons established a precedent for other pre-Civil War mounted units. Essentially jerry-judged, with no organic ties to any tradition of mounted warfare, these units fell completely outside of table of organization and division of functions established for European cavalry regiments. At this stage in American military affairs, Congress was dominant in the development of national war policy. Consequently, the dragoons were largely a reflection of Congress's limited expertise in the mechanics of cavalry organization. Input from the Army's leadership was indirect and fragmentary. Congressmen Johnson, principally responsible for the

final form of the dragoons, detailed the intended functions and duties of the Army's new horse soldiers:

Regular dragoons, it is believed, are fully competent to discharge all the duties that can be required of mounted rangers.... In celerity of movement they will of course be equal, and as it is the duty of dragoons to serve on horse and foot, they may be trained to the use of the rifle and the sword as occasion may require.³⁴

The dragoons could not, in any formal sense, be regarded as an American importation of European cavalry doctrine. Representative Johnson spoke of the ability of the dragoons to fight both mounted and dismounted. The formal, European definition of "dragoon" bears at best, a slight resemblance to the American form of this type of unit. As one European military dictionary put it, in 1745, dragoons were:

...mounted, who serve sometimes on Foot, and sometimes on Horseback; being always ready upon any thing that requires expedition, as being able to keep pace with the Horse, and do the service of Foot.³⁵

Thus, by definition, dragoons were expected to fight when necessary, on foot. However, unlike infantry, which usually fought in tight disciplined formations, dragoons' customary tactical deployment was in skirmisher order. This loose and even stylized formation was designed to allow the dragoons to do no more than simply harass enemy units with carbine fire. In other words, when dismounted, the European-style dragoons would form a long, loose line, one rank deep, and then, by the specified steps of the Skirmish

drill, proceed to lay down, on the enemy's infantry and artillery, several volleys of harassing fire. Dragoons had gradually mutated into a generally orthodox cavalry formation; consequently, their earlier infantry attributes had either become largely vestigial or were shorn completely. Therefore, they generally fought as still another mounted unit, albeit with the carbine as well as sword and pistol.³⁶

What, therefore, was intended by designating the first post-War of 1812 cavalry as "dragoons"? They were certainly not intended to serve as "light cavalry", as hussars or chausseurs. While the appellation of light cavalry has been commonly applied by later writers to describe the true character of the American dragoons, it is, misleading.³⁷ Being capable of fighting on foot as true light infantry, exploiting the terrain for concealment and cover, the Regiment of Dragoons had considerably more tactical flexibility than the European hussars, which were intended to fight exclusively on horseback and to perform scouting and raiding duties, or the European style dragoon.³⁸ Nor were the Regiment of Dragoons mounted rifles, in that they lacked infantry weapons and were thoroughly trained to fight while on horseback. What lay behind Congress's establishment of a dragoon-like cavalry unit was two-fold: first, of less importance, was the fact that pre-War of 1812 units had borne a similar designation; and secondly and more importantly, was the fact that of all the orthodox types of mounted units, the dra-

goons were those which most approximately fitted the requirements of the frontier. Congressman Johnson had been a highly successful exponent of the Kentucky style of mounted volunteer rifles, which had performed with considerable effectiveness against both Indians and the British.³⁹ This experience was probably most important in determining the rough organizational make-up of the Regiment of Dragoons. The American dragoon regiment was thus a unique admixture of European dragoon, light cavalry, mounted rifle and light infantry principles, plus a liberal dash of the mounted volunteer experience of one highly influential Congressman, the by-product of political expediency and military necessity and not the creation of any conventional manual of cavalry organization.⁴⁰

Part II

The establishment of the Regiment of Dragoons, regardless of its lack of formal ties to the classical European cavalry tradition, was, nonetheless, a telling, if temporary, victory for the advocates of the professional army. In what amounted to direct competition, the volunteer ranger concept had failed as an alternative to the use of mounted regulars in providing frontier security. However, as a much broader consequence of the Black Hawk War, the Army, contrary to its self-defined, professional mission of preparing to meet an invasion by a major European power, was hereafter

saddled with the primary responsibility of providing organized protection against Indian incursions.

The dragoons were a variety of cavalry, more or less, and thus the Army's leadership, in a manner unanticipated by Congress, determined to mold them into the shape of an orthodox mounted unit, at least in regards to tactics and equipment. Structurally, the organization of the dragoons was that of an American infantry regiment. Therefore, the Regiments of Dragoons possessed ten companies instead of troops, with battalions instead of squadrons as the next smaller unit below the regimental level. The regimental commander, for the interim period of unit organization, was the mounted rangers' senior officer, Colonel Henry Dodge. Prior to his service in the United State Army, Dodge had earned a reputation as an efficient volunteer officer in the War of 1812. During the Black Hawk War, Dodge distinguished himself as a colonel in the Michigan Territorial Mounted Militia, by winning the last and very decisive victory over the Sac and Fox Indians. Since Dodge was not a professional Army officer and desired early retirement to enter civil politics, real leadership of the dragoons fell to Lieutenant-Colonel Stephen Watts Kearny, formerly of the Third Infantry. Principally for political reasons, six of the former officers of the mounted rangers were accepted for service with the dragoons. This decision occasioned a fair degree of resentment among regular army officers, who saw it

as "an absolute infringement of their implied rights" and which in turn, reduced the number of new slots on the very slow promotion list.⁴¹ All other officers were either recent West Point graduates, trapped in the limbo of brevet second-lieutenant status awaiting an opening in the career lists, or seconded from existing infantry units.⁴²

The dragoons were at once reconstituted into an elite regiment, not dissimilar from the British Guards. Because of the higher worth of mounted units in the hierarchy of traditional, aristocratic warrior values, despite being at the bottom of the career list in the ranking of the different categories of Army officers, the dragoons offered a higher degree of social status and prestige.⁴³ The romantic character of the dragoons was sprightly presented in the barracks song (or, in military slang, "Jody"), "The Bold Dragoon", of the later Second Regiment of Dragoons (who were tagged the "sons of Bacchus", for their supposed off duty revelries):

Oh: the dragoon bold! he scorns all care as he goes
Rounds with uncapped hair reverends no thought on the Civil war
that sent him away to the border war.⁴⁴

The composition of the rank-and-file of the dragoons was to be very different from any other Army regiment. In accordance with limited war doctrine, the rank-and-file were usually filled out with the refuse and sweepings of society; according to Frederick Marryat, a British traveler:

The privates of the American regular army are not the most creditable soldiers in the world; they are chiefly composed of Irish emigrants; Germans, and deserters from the English regiments in Canada. Americans are very rare; only those who can find nothing else to do, and have to choose between enlistment and starvation, will enlist in the American army.⁴⁵

While such men "were necessarily inferior as material to the... volunteers enlisted... expressly to fight..." recalled General Ulysses S. Grant, the value of such soldiers, to a professional army, one expressly founded on the limited war traditions of the French-Austrian school, was considerably greater than the eagerest of volunteers.⁴⁶ Such men were by nature of little use to civil society, hence the cost to the nation of manning a military establishment was correspondingly lessened. Moreover, such men, particularly the immigrants and British deserters (prized by Army officers for their high level of training and discipline),⁴⁷ lacking any ties to the larger society, were thus dependent on the military for succor. In turn, they could be subject to far more stringent discipline than would have been tolerated by citizen soldiers. In its recruitment policies, the United States Army therefore continued to follow the principles of limited war doctrine, in the Frederickian tradition.

The dragoons, however, were to be organized quite differently from all other Army units. The rank-and-file were intentionally recruited from every state in the union; the manpower was to be distinctly American in character, as

opposed to the usual offscourings of society dredged up by the Army's recruiters, and the unit's spirit, that of highly motivated volunteers. This was not, most assuredly, and abandonment of one of the central tenets of limited war doctrine. This style of recruiting was the norm in most European elite units and the reliance on one's own nationals was increasingly common over the course of the Nineteenth Century as the demands for labor grew with the development of the Industrial Revolution.⁴⁸ The recruitment for the dragoons was enormously facilitated by the fact that the unit was cavalry and by the lure of western adventure. As then Lieutenant Cooke pointed out, a recruiting expedition to Tennessee was a wholly successful undertaking:

Early in the summer of 1833, I was among the hardy sons of West Tennessee seeking to infuse an ardor for service in a wide regiment of cavalry, one destined, we believed, to explore far and wide the western territory, and bear the arms of the Union into the country of many Indian tribes. It was a prospect that did not fail to excite the enterprising and roving disposition of many fine young men, in that military state.⁴⁹

The army's haul from their recruiting efforts was, according to one of those enthusiastic Dragoon recruits, James Hildreth, composed of "young men... which in point of talent, appearance and respectability, perhaps never were... surpassed in the history of military affairs."⁵⁰ The high quality of the recruits and their boisterous spirit occasioned a fair degree of press attention. The Albany Daily

Advertiser, for example, commented quite favorably on the unusually high quality of the new cavalrymen:

...a particular fine body of men being selected with the greatest care--not only as to thews and sinews, and horsemanship, but as to their moral qualifications, and their general adaptation for a service requiring an unusual degree of skill, courage, coolness, and power of endurance.⁵¹

In part, the strategy of presenting the dragoons as an elite unit was no more than a recruiting ploy. Certainly the artful blandishments and sales puffing of the recruiters exploited fully this sense of superiority of the dragoons as an Army unit. According to Hildreth, such advertising methods were necessary because "so superior a band of young men could not have been induced to enlist themselves as common soldiers... where the very fact of a man's being a soldier seems to imply that he is fit for no other employment."⁵² On a deeper level, however, the deliberate recruitment of Americans rather than immigrants was representative of the same spirit of military professionalism as the Army's devotion to the French-Austrian school of war. In effect, the Regiment of Dragoons created an elite, pan-nationalistic unit: a physical representation of the central political tenet of the French-Austrian school of war that a country's army was to stand separate-and-apart from civil society, as a guardian of order and tradition.⁵³

There were substantial problems associated with the establishment of the dragoons as an active Army unit. First

and most critical was the simple fact that the Army had few if any regular officers with cavalry experience. Due to the passage of some eighteen years since the disbandment of the light dragoons, the Army had to start anew with the creation of a cavalry establishment.⁵⁴ As one of the harried officers (some in Congress were pressing for an early termination of the dragoons if they did not take the field with dispatch), Cooke elaborated on the numerous difficulties facing the new unit's commanders:

These persons who may at times have felt symptoms of envy at the fortunes of officers preferred to new regiments, might console themselves if they could but realize the amount of labor, care, and vexations attendant upon the task of enlisting, organizing, disciplining, and instructing a new corps, of producing order from chaos (and much the more cavalry) where the amount of duty, instruction, and responsibility may safely be considered double in comparison with the infantry. And this, without consideration of the extra-ordinary fact, that cavalry tactics were unknown in the army, and with the whole theory and practical detail, were to be studiously acquired in manner invented- by officers, before they could teach others.⁵⁵

Much of what Cooke complained could be traced to the fiscal restraints imposed by Congress. "The most egregious oversight on the part of Congress," according to Hildreth, was "...in not providing proper instruction in horsemanship and dragoon tactics...."⁵⁶ The result of this combination of inadequate funding and planning with Congressional pressure for quick deployment of the regiment was forcefully pointed out by western traveller Charles Fenno Hoffman:

The omission of providing riding masters and a school of practice for both horse and men is a defect that all the care and exertions of the accomplished and energetic officers of the corps can hardly remedy.

The omission of the necessary provisions in the bill reported by Congress and the dispersion of the regiment on the frontier as each company is recruited... forbids an approach to such a state of discipline. The three new companies here ((e.g., Fort Gibson, in what is present day Kansas)) are nearly perfect in the light infantry drill, which enters largely into the maneuver of dragoons, but the exactness of their movement when mounted varies with the skill of each individual horseman.⁵⁷

The clear thrust of Colonel Dodge's exacting training regimen was to create a high quality, European-style cavalry unit. The difficulty was in translating foreign drill manuals into everyday practice for the officers and men of the dragoons. "Everything was new to them," recalled then Lieutenant Philip Kearny, nephew of the regiment's Lieutenant-Colonel Stephen Kearny. "The cavalry regulations for the maneuvers were taken from the French, almost literally translated."⁵⁸ The difficulties of trying to train men, when the officers and non-commissioned officers were virtually ignorant of cavalry tactics and with only three or four copies of an obsolete French manual to guide them, is illustrated by how the intricate saber dance or drill was taught. At night, the officers were drilled as if they were back on the parade field at the Point; the following morning, the sergeants and corporals were put through their paces and, in turn, tried to instruct the men in this very difficult wea-

pon. Moreover, there were no qualified riding masters to oversee the training in horsemanship; only in 1837 was a cavalry school established at Carlisle Barracks, Pennsylvania.⁵⁹

The Regiment of Dragoons, at least for parade drill purposes and in the eyes of western travelers inexperienced in the military arts, was quickly assuming the appearance of a disciplined and polished unit. "They were," as Edmund Flagg wrote, "all Americans, resolute looking fellows enough..." and apparently ready for the rigors of frontier patrol duty.⁶⁰ What caught the eye of most observers was the supposedly higher level of individual motivation and the "ethnically pure" character of the men. Charles Joseph Latrode commenting favorably on the new regiment, stated that "the recruits for the service of the newly-raised regiment of Dragoons organizing for the future service of the frontier in place of the Rangers... were distinguished from the rag-tag-and-bob-tail herd drafted in to the ranks of the regular army by being for the most part, (["all Americans"]) athletic young men of decent character and breeding."⁶¹ In reality, the unit was seething with discontent and plagued by such high rates of desertion (as many as one hundred by October, 1833) as to seriously undermine the process of unit formation. The chief cause of this deep dissatisfaction among the men was the unexpected reality of the unpleasant conditions of frontier service. Upon the unit's initial

posting to Jefferson Barracks, St. Louis, the first four companies that had been organized were required to act as common laborers in erecting barracks and stables for the regiment. Such mundane labors contrasted quite unfavorable with the recruiting officer's hyperbole regarding the supposed ease of service in an elite cavalry regiment.⁶²

In 1834 the First Dragoons, for the first and only time prior to the Civil War, went into the field at something approaching full strength. Overall command of the expedition was vested in Brigadier-General Henry Leavenworth, then in charge of Fort Gibson and the Western Division of the United States Army.⁶³ The purpose of this campaign was to present a show of force so as to overawe the Plains Indians, particularly the recalcitrant Pawnee, Kiowa and Comanche, into respecting the rights and interests of Santa Fe Trail merchants, Arkansas Territory settlers and recently relocated Eastern Indians. A second and perhaps crucial purpose of the expedition was to prepare the way for the forced resettlement of the Southeast Indians onto the Plains. The original May date for launching the expedition was canceled due to difficulties in completing the formation and initial training of the regiment. Only in early June was the regiment's second battalion fully formed; the last three companies arrived only three days before the departure of the expedition. On June 15, 1834, approximately five hundred officers, men, Indian scouts and assorted civilians embarked

on this ill-fated campaign. The primary failing was a dangerous combination of ignorance and bravado. Virtually to a man, the Dragoons were wholly incognizant of the dangers associated with travel on the Great Plains, particularly by such a relatively large force. The campaign set out in June, during a year of exceptionally high temperatures, when potable water and forage were at their scarcest. Furthermore, the formation of the dragoons as a combat unit was nowhere complete. Not only was over half of the regiment either in transit to Fort Gibson or still in training, there had been no time for the assemblage to coalesce into an effective military force. Consequently, the poor performance of the regiment could be attributed to lack of organization and planning; or as Hildreth commented, "with but about six months training, and that under officers who know less of the maneuvers of a cavalry corps, than some of the dragoons themselves."⁶⁴ Accompanying this expedition was noted artist and western chronicler George Catlin, then engaged in gathering information for his major work on North American Indian tribes. Catlin succinctly diagnosed the causes of the expedition's problems when he wrote:

In the first place, from the great difficulty of organizing and equipping, these troops are starting too late in the season for their summer's campaign by two months. The journey which they will have to perform is a very long one, and although the first part of it will be picturesque and pleasing, the after part of it will be tiresome and fatiguing in the extreme. As they advance into the West, the grass (and consequently

the game) will be gradually diminishing, and water in many parts of the country will not be found.⁶⁵

The expedition ended in disaster. Catlin authored a haunting assessment of the progress of the campaign in mid-course: "of the 450 [actually, five hundred plus] fine fellows who started from this place [Fort Gibson] four months since, about one third have already died, and I believe many more... will yet fall victim to the deadly diseases contracted in that fatal country."⁶⁶ Some sense of the severe hardships and privations which befell the dragoons is afforded by the journal of First-Lieutenant Thomas B. Wheelock:

August 8. Marched at eight o'clock. Halted at three o'clock; distance eighteen miles; course east by south. Exceedingly warm day. Stubborn thickets. Crossed and encamped in the bottom of Little River; shallow stream, narrow bed, miry shores. No water from morning till the halt for the night. Passed many creeks the beds of which were entirely dry. Our Horses looked up and down their parched surfaces and the men gazed in vain at the willows ahead, which proved only to mark where water had been. The timber is larger here.... No longer any trace of the buffalo. Sick report numbers thirty men and three officers.⁶⁷

The result of this folly was to put the regiment out of action for some four months as an effective military unit with the loss of over one hundred troopers and officers, including General Leavenworth, as well as a third of its mounts. Nonetheless, there were very important and valuable gains recorded by the Army's first major campaign on the Great Plains. First, it served to establish the basis for subsequent intercourse between the United States government

and the assorted Indian tribes of the Great Plains. Secondly, it served as vast classroom in which the Army was tutored, although quite harshly, in the skills essential to the effective operation of military forces on the Great Plains.⁶⁸ Such was the speed of the Army in mastering these lessons, a point too easily obscured by the misfortunes of the Leavenworth-Dodge expedition, that within a year's time, the dragoons could easily mount reconnaissance and diplomatic forays of well over a thousand miles without incident. For example, on June 7, 1835, Lieutenant-Colonel Kearney began a highly successful expedition into the Iowa Territory, a journey of some one thousand miles, with B, H and I Companies. This force returned to base on August 19, 1835, without the loss of a single man or horse; or as the anonymous chronicler of this expedition put it, in words wholly different than those penned for the Leavenworth-Dodge mission: "Come 20 miles to the Fort ((Gibson)). Arrived there about 2 P.M. having been absent almost 3 months. Sickness and disease has been a stranger to the camp and all have emerged in good spirits... upon the whole I convey we have had a pleasant campaign."⁶⁹

Part III

The Second Seminole War, 1835-1843, was perhaps the Army's "dirtiest" war of the Nineteenth Century. It substantially influenced the development of military profes-

sionalism in the officer corps. Indirectly, as well, it led to the creation of the Antebellum Army's second cavalry regiment. It was a war of shadows, of small patrols struggling through the inhospitable mire of the Florida Everglades hunting and in turn being hunted by the Seminoles, Creeks and their black allies, of ambushes and reprisals. It was as well a second major test of the professional American Army in the post-War of 1812 era. The severe trials occasioned by this war stemmed as much from the numerous difficulties of jungle warfare, as from the confusion and disarray at the highest levels of the nation's war policy decision process. Ceaseless political pressure from Washington on the Army for a swift resolution of hostilities in conjunction with the failure of Congress to legislate adequate military resources to accomplish this task, served to derail any coherent and effective tactical solutions. The reasons for the Army's eventual success were principally ones of exhaustion and attrition of their enemies coupled with the painfully slow development of effective jungle war techniques. Seven senior officers and seven different tactical schemes were hastily devised and then just as hastily aborted due to the ever-louder chorus for an end to hostilities by Congress. The thoroughly European American Army was unsuited by organization, equipment and tactical doctrine, for the challenges posed by the unorthodox guerilla-style warfare. It took several years to devise

effective combined Army-Navy operations; lack of cooperation between these two services was as much a lack of tactical theory and practice in joint small-unit operations as it was one of politics. The lessons learned by the Army's leadership were not, however, those of flexibility and innovation in military doctrine. Instead, as in the earlier Black Hawk War, this protracted campaign served as a vindication of the essential correctness of the Army's post-War of 1812 decision to realign itself on the French-Austrian school of war. Thus, as before, effective military action had been crippled, vast resources of men and money squandered and lives lost due to the interference and lack of fiscal support of politicians in both the executive and legislative branches. There was as well the usual lack of cooperation of state, territorial and local officials; the customary lack of militia effectiveness as combat troops; and the persistent lack of adequate numbers of men, equipment and funds.⁷⁰

For eight long years, under the most oppressive and difficult of conditions, the Army labored in its thankless and ignoble job of suppressing the Seminole and Creek Indians. The terrain of the Florida Everglades presented exceptionally inhospitable country for the operation of conventional troops. The men were plagued by the heat, the swamps, disease, alligators and the hard biting "tiny sandflies popularly called 'noseeums'."⁷¹ The difficulties of campaigning in the Everglades were catalogued with a good

deal of anguish by Assistant Adjutant-General J. A. Chambers:

The troops have endured every hardship and privation, they had ((been)) exposed to the drenching rains, noxious vapors, and the scorching sun of an almost torrid climate; they had waded rivers, made long marches over burning sands, traversed almost impassable swamps, and sought the enemy in fastness such, as American soldiers had seldom penetrated before, and with a perseverance and energy, and a courage, worthy of the best era of the republic.⁷²

The Army's travails in the Florida mires and glades presented yet another example of an orthodox European-style army struggling to overcome an adversary that refused to fight by the standards of civilized warfare and on terrain that was inhospitable to standard tactics. From the Scottish Borderlands and the Balkans of the 1740s which had spawned the concept of light infantry, to the dense North American woodlands and General Braddock's massacre during the Seven Years War, to Wellington and the Spanish Peninsula, where modern guerilla warfare was born, to the burning sands of French Algeria in the 1830s and 1840s and the Great Plains and Florida Everglades of the United States, European-style armies had labored mightily and, on occasion, with a fair degree of ingenuity, to wage unconventional warfare. In the main, such efforts were rarely reflected in the manuals or in the training regimens of officer cadets. The only major influence on orthodox tactics lay in the use of light infantry as skirmishers to cover the advance of columns of conventional infantry.

Guerilla-warfare, in order to be effectively prosecuted required highly unorthodox tactics, the willingness of senior officers to trust the judgments of junior officers in the field and an effective, coordinated strategy with the diplomats and civil officials. The Army eventually solved the first two problems of tactics and command leadership. Out of the jumble of strategies tried in the Florida swamps, what emerged was basically the same strategy used seventy years later by the British in the Boer War. The swamps were sub-divided into a series of three-square-mile districts. In the heart of each district was a blockhouse and a lieutenant, captain or ensign with forty soldiers, Marines or volunteers. The emphasis was on aggressive patrolling, thereby severely curtailing the mobility of the Indians. In turn, larger detachments traversed the glades by water and on foot, progressively tightening the Army's grip on the Florida mires, in effect, squeezing the swamps dry of its Indian population. Indian Bureau agents, whose ineptitude and belligerence had been one of the primary causes of the outbreak of hostilities, eventually proved somewhat useful in securing the surrender of some of the Indians. Eventually, the Army more or less succeeded in pacifying the Everglades and bringing about the deportation of much, if not all, of the Indian population. These painful innovations in waging unconventional warfare, however, had no measurable impact at all on formal Army doctrine. The harsh

tactical lessons learned in the Everglades remained behind when the bulk of the Army was withdrawn to deal with the problem of frontier security on the Great Plains. It was the national political establishment which had failed to support the military effort effectively, from which the Army again learned the painful lesson that in a crisis, it would ultimately have to rely on itself to defend the country.⁷³

The professional officer corp's assessment of the causes of this war appear, on first reading startling: the two primary factors in bringing about open hostilities they argued, were white greed for land and the conflict between two quite different cultures. In fact, these factors were, from the perspective of most professional officers, the usual causes of Indian-white hostilities in this period. The Seminoles had therefore been pushed into war by the unscrupulous acts of some white settlers and the fraudulent and corrupting practices of the whiskey dealers, a problem found on both the Southern and Western frontiers:⁷⁴

...the passions of a people ((i.e., the Seminoles)), which had been smothered for fifteen years... were let loose, and the savage massacres which had appalled the stoutest breast, gave undisputed evidence of the character of the conquest. Florida, from this time forward, was a scene of devastation, murder, sorrow, and distress.⁷⁵

The patrician members of the officer corps, charged with the conflicting duties of looking after the welfare of the Indian and in turn protecting the frontier settlers, whose greed all too often brought on hostilities, found the

process of Indian control quite distasteful. Yet they dutifully set about their dirty work when the shooting started, the professional ethos of the officer corps placing it above the petty machinations and intrigues of the civil politicians. The Army had little affection for the savagery of their adversaries yet the members of the officer corps understood that it was a function of the Indians' very different culture, "their rude and uncultured code of laws."⁷⁶ The greatest complaint of the Army's leadership, however, was the usual lack of adequate manpower to prosecute effectively and speedily the wars foisted on them by the national political establishment, or as Potter put it:

If the President was determined to gratify the craving appetites of a few avaricious speculators, it was his duty to protect the respectable citizens of Florida against any injury ((that)) might result from his measure, he should have thrown such a force into the territory as to prevent the possibility of resistance....⁷⁷

At the onset of hostilities, the Army's forces in Florida numbered some five hundred men, mostly artillery troops manning the peninsula's fortresses. Their opponents, whose growing inclination to resort to war had been known for months, totaled some fifteen hundred Seminoles, Creeks and black allies. A considerable effort was thus spent by the Army and the Secretary of War in scraping up enough troops to prosecute the war.⁷⁸ Lacking resources and under intensive political pressure to produce a quick victory, the Army tackled its formidable problem with grim determination

and, in time, considerable skill. Brevet Captain John T. Sprague, chronicler of this war, expressed the bitter feeling of most Army officers toward their civil political masters when he wrote: "Blood is spilt, millions are squandered, the country ravaged, when the means upon which the only hope was based, to avert the calamity, one put in requisition ((i.e., creating an Indian reservation in Florida)), and the army, amid vindictive abuse and unreserved condemnation, accomplished the desired end."⁷⁹ As usual, the militia proved largely ineffectual; in the best tradition of limited war doctrine, Sprague stated the Army's severe criticism of citizen soldiers.⁸⁰

If mustered into service, each man inevitably leaves his home unprotected while absent, solicitous for the safety of others, his own dwelling may be fired, and his family murdered; his farm from which he draws his daily food, becomes a barren waste, and the habits of industry, which have grown with his... ((efforts)), become enervated by pernicious example.⁸¹

At about the same time as the beginning of the Seminole War, the Second Dragoons were created by Congress as the Antebellum Army's second cavalry unit. The exact motivation behind the establishment of a second dragoons regiment is quite murky. The Second Dragoons appear to have been part of the temporary expansion of the Army in 1836 due to the outbreak of hostilities in Florida.⁸² Consequently, the Second Dragoons have been frequently identified as having been authorized specifically for duty in the Seminole War.⁸³ This portion is supported by the fact that in 1843, after

cessation of hostilities in Florida, Congress moved first to disband and then to retain them as a dismounted rifle regiment. This decision was in turn reversed in 1844, when Congress authorized the remounting of the Second Dragoons due to strong Western political pressure for increased Army protection on the Great Plains.⁸⁴ The problem with this neat and quite linear progression of events in the complicated gestation period of the Second Dragoons is in the fact that the Everglades were the worst possible terrain in which to deploy cavalry. The morassy terrain of the Florida glades was completely impassable to mounted troops. Consequently, the Second Dragoons, during this campaign, were compelled to slog through the muck of the Everglades as lowly infantry along with the rest of the Army and Marines. Moreover, there is the interesting fact that the first posting of the Second Dragoons was not to Florida but rather to Jefferson Barracks, St. Louis, apparently for Western frontier security duty. It is thus probable that the Second Dragoons were created by Congress pursuant to increasingly vocal Western political demands for adequate military protection; in turn, the establishment of this regiment would have allowed for reassignment of an infantry regiment for Florida duty. However, the massive manpower requirements created by the Second Seminole War forced the Army high command to gut the Western Department for troops of all kind, including the Second Dragoons. The First Dragoons, save for perhaps a few

companies in the first months of hostilities, labored alone as the Army's only western cavalry unit until the 1840s.⁸⁵

A third unit of cavalry, the Regiment of Mounted Rifles, was established by Congress in 1846, professedly to man a series of new outposts along the now heavily-travelled Oregon Trail.⁸⁶ The origins of the Mounted Rifles if anything, are more shrouded in the obscurities of Congressional legislative history than the Second Dragoons. Certainly, this unit was one of congress's most whimsical and peculiar creations in the field of war policy. The primary armament was designated as the 1841-pattern rifle and, of all things, very oversized Bowie knives, which many officers replaced as soon as possible with a saber. The 1841-pattern rifles were simply too unwieldy and possessed too low a rate of fire to be effective for mounted frontier service. Moreover, there was simply no way such weapons could be used by a soldier when on horseback. Further complicating matters was the fact that a different table of organization than that of the Dragoons was established for the Mounted Rifles; thus this new regiment had two extra companies and over two hundred more men and officers. Even the facings on the uniforms were different: yellow (or orange after 1851) for dragoons, green for mounted rifles, as in British Army practice. The motive of Congress in creating such a unit instead of a third regiment of dragoons, which would have ensured the rationalization of Army units into a few spe-

cific types is obscure. The primary motivations appear to have been those of foreign policy and protection of the "true" Anglo-Saxon character of the American people and not the actual defense of pioneers on the Oregon Trail. In other words, nativism plus the then white-hot political issue of the Oregon boundary were really the principal influences upon Congress in creating the mounted rifles. The Congressional debates express concern for the racial purity of American society, the untoward threat of immigrants and the need to prove the superiority of youthful American society in the tussle over the Oregon Territory with decadent old Great Britain.⁸⁷ Of course such concerns had little rational connection with issues of national war policy; the mounted rifles was the least desirable form of cavalry in terms of European mounted warfare doctrine and the Army's senior leadership. Nonetheless, Congress did establish the mounted rifles, reasserting, if in a rather roundabout manner, its traditional opposition to military professionalism. The style of the mounted rifles--Bowie knives and long guns--conjure up images of such pioneer legends as Daniel Boone and Davy Crockett rather than regular Army soldiers. As an added benefit (if of small import), was the Army's growing surplus of expensive new percussion cap rifles (in the main, loathed by line infantry officers for their very slow rate of fire) could finally be

put to productive use rather than gathering dust in federal arsenals.⁸⁸

Part IV

The American West from 1812 to 1861 provided few opportunities for the youthful cavalry service to employ formal European mounted-warfare principles. The central obstacle to the effective mastery of cavalry tactics lay in the very wide dispersal of the Army on the Great Plains. At no time until 1861, did more than six companies of any mounted regiment ever serve together, after the initial assignment to the West. The ten companies of each mounted unit were scattered to isolated waddles vain-gloriously titled forts. Moreover, each company was further subdivided into still smaller detachments to man assorted cantonments and posts. The positioning of such detachments was chiefly a political and not a military decision; Army bases in this period were usually situated near settlements or astride commercial and pioneer trails. In 1835 the First Dragoons, according to the Annual Report of the Secretary of War, listed three companies at Des Moines, four at Fort Leavenworth and three at Fort Gibson (Arkansas). In 1848, the First Dragoons listed three companies within the New Mexico Territory and one each at Fort Leavenworth, at Fort Scott (in present day Oklahoma) and at Fort Snelling (upper Minnesota). For the same year, the Dragoons had deployed six companies in the

New Mexico territory, two in Texas and two in transit to California.⁸⁹ To put these numbers in perspective and to facilitate an understanding of how hard-pressed the Antebellum Army was in fulfilling its frontier defense obligations, consider the following (and quite typical) statement of the Army's western deployment in 1854;

A. The Department of the West, including the country between the Mississippi River and the Rocky Mountains, save for the Departments of Texas and New Mexico, with a total of 2,400 square miles of territory to be patrolled, occupied by an estimated 180,000 Indians and policed by a total of 1,855 officers and men;

B. The Department of Texas, consisting of that state and adjacent land for a total of some 2,000 square miles, with 30,000 Indians watched over by 2,886 officers and men;

C. The Department of New Mexico, with 1,500 square miles, 50,000 Indians and 1,654 officers and men.

D. The Department of the Pacific, embracing California and the Territories of Oregon, Washington, Utah and part of New Mexico, 3,100 square miles to be patrolled, 134,000 Indians and 1,365 officers and men for the job.⁹⁰

Fundamentally, the professional Army viewed the task of frontier security as not constituting a military problem. Irregular or partisan warfare, according to the prevailing military-legal doctrine, was barbaric and intrinsically dishonorable. John P. Curry, an author of field manuals for the militia, penned a precise statement, in 1861, of the formal military animus toward guerilla warfare:

This, the most barbarous and inhuman mode of warfare known, and by no means recognizable among honorable comba-

tants, is generally resorted to by irregular troops for the purpose of harassing and annoying an invading army entering an enemy's territory. They ((e.g., guerrillas)) usually murder for pay and plunder, and are not prompted by any spirit of patriotism or honor. Guerrilla warfare consists, mainly in making night attacks, way laying strangers, the free use of poison... firing upon victims from ambush... and in robbery, pillage and assassination. If a guerilla is caught, no clemency whatever should be extended to him.⁹¹

This pronounced opposition to partisan warfare by members of the trans-Atlantic military community, was part of the legacy of the limited war tradition and the profound intellectual reaction against the unrestrained violence and the brigandage of the Thirty Years War. War was thus supposed to be fought according to universal rules of engagement, by clearly identified combatants for limited objects and restrained by reason and honor.⁹² The problem, therefore, for the Professional American Army, was how to wage an unorthodox war without sacrificing its hard-won commitment to a European style of war and in turn, without sullyng its honor, "that active and heaven-born principle,... that purifying an ennobling sentiment which pervades every word and action, while it regulates and controls the passions...".⁹³ The Army, it should be recalled, was bound as well by its seconds obligation of protecting the samesaid Indians from the unlawful conduct of some whites. The problem was never formally tackled by the Army's leader of how to blend these disparate duties into a coherent policy: tactical problems of frontier security and legal questions involved in the

management of Indian affairs were largely left to the imagination and discretion of field officers.

That is not to say that the European military traditions and practices on which the professional Army was modeled had no utility in aiding officers in tackling the complex and thorny issues involved in frontier security duty. Surprisingly, it was again the tactics of the French Army which proved invaluable in solving the question of how to control the Indians. A frequently used term to describe the Indians, was that they were "Arabs" or "mussulmen". Captain John Pope, for example in describing the Indians of the Southwest in 1853, stated that their habits (including in battle) were similar to the "wild Arabs" of the desert.⁹⁴ Similarly, Army Surgeon R. Gilson, described the Comanches as "those arabs of the western prairies."⁹⁵ The origin of this practice of defining the Army's problem of Indian control as analogous to management of the Arabs was derived directly from recent French Army experience in North Africa.⁹⁶ In the 1830s and 1840s, French armies waged a protracted and highly fluid war with the Berber tribes. The initial and wholly unsuccessful tactical scheme was the "Great Wall", entailing reliance upon numerous small, static garrisons to seal off the Berber threat from populated areas. Essentially, therefore, in terms of American frontier military policy, the same type of tactics which had proved equally ineffective on the Great Plains and in the

Mississippi Valley in the immediate post-War of 1812 period. In 1840 Marshal Thomas-Robert Bugeaud was dispatched to Algeria to take command of the flagging war effort and to implement his quite original and even daring tactical solution to the Arab's guerilla tactics. Within his command were three American Cavalry lieutenants sent to France by Secretary of War Joel Poinsett with the objective of returning with the most up-to-date training and manuals in mounted warfare so as to ensure that the dragoons were truly an effective cavalry unit. Bugeaud replaced the numerous small garrisons with large, strategically positioned concentrations of troops. The new tactical emphasis was on celerity and mobility; heavy supply wagons were replaced by mules and the heavy artillery left at base. Small detachments of cavalry and infantry were sent out as scouts to shadow the Arabs and pinpoint their location. Aggressive patrolling and rapid and effective retaliatory strikes by cavalry and infantry, exploiting their new swiftness of action to the fullest, accomplished in four years what France had failed to do in the previous twenty; or as Bugeaud himself put it:

I have made myself as much an Arab as you are. More than you perhaps for I can remain on campaign longer without returning for supplies. Your vast solitudes, your steepest mountains, your deepest ravines cannot frighten me or stop me for a moment.... I am mobile as you are. There is not a single corner of your territory which I cannot reach. Like a river of fire I will scourge it in all directions, today to the south, tomorrow to the east, the day after to the west, then to the north.⁹⁷

Arab and Indian societies were highly dissimilar, the former being considerably more organized. Yet the styles of warfare of these two peoples bore many similarities: fleet, highly mobile adversaries, specializing in hit-and-run tactics, and exploiting the harsh, inhospitable terrain in which they lived to their advantage. Thus, there was a common bond of experience, based on the solution of broadly similar tactical problems, between American and French officers. Lieutenant Philip Kearny, who distinguished himself in the Algeria campaign of 1841-1842, returned to the dragoons imbued with the latest advances in waging both orthodox and unorthodox warfare. For Kearny, "the French theory of tactics... ((was)) the most perfect" of his day, a statement which would have been readily agreed to by most professional officers on both sides of the Atlantic. While the French tactics in Algeria, unlike their formal principles of mounted warfare, were never written down in any formal military treatise, they nonetheless influenced American counter-Indian tactics in the Antebellum era. Mule trains were used for resupply in rough country, infantry were employed to screen cavalry and supply trains from ambush in mountainous terrain and small herds of sheep and cattle were driven behind the troops to provision large field operations.⁹⁸ Thus, the definition of frontier security problems in the context of European military practice, particularly that of the Army's mentor, France, further

strengthened the ties of the officer corps to the professional concept of war.

Both the French and the American armies arrived, independently, at the conclusion that cavalry was fundamental to the effective control of hostiles, Arab or Indian. Thus without cavalry, according to Colonel George Croghan, "our interior commercial can ((not)) be protected against the tartars of the prairies by Infantry stationed at posts, without the assistance of a mounted force."⁹⁹ Again, as pointed out by Captain Cooke: "in no country of Europe, nor in Asia, can horses be so numerous and so cheaply supported as in the United States; and our plains and prairies plainly indicate that cavalry is the most suitable military force."¹⁰⁰ An alternative tactical solution to the problem of suppressing the raids of the Plains Indians would have been by the use of a largely mounted combat force, supported by limited numbers of infantrymen to man garrisons and for use in hilly terrain. Such tactics were used in the Nineteenth Century by Imperial Russia to secure control over their Central Asia territory. Such a radical departure from orthodox military tactics never developed due to two insurmountable obstacles. First of all, Congress had little enthusiasm for expanding the strength of the Army, resulting in a continual shortage of troops that was only gradually solved over the course of the Antebellum period. The second key obstacle lay in the intrinsic military professionalism

of the Army itself. The fundamental tactical precept of formal European-style warfare was that the infantry was the king of battle; cavalry was no more than a useful adjunct to the foot-soldiers. The Army therefore went about the difficult task of Indian control by bending and twisting their European oriented war fighting system to the requirements of the frontier.

Practically speaking, the basic operational character of the Army's means of suppressing Indian incursions was wholly military in character. It was not, however, defined as being military in nature by the officers waging these campaigns. On the other hand, it was clearly not the police-like campaign employed across the border in Canada. The Royal Canadian Mounted Police tackled the question of Indian control in the fashion of a conventional police problem of maintaining law and order. This approach was wholly reactive in nature: in the main, individual violators of Canadian law would be apprehended and tried for their offenses. Only infrequently did the R.C.M.P. resort to the use of large scale detachments of police and soldiers to control their Indian populations; for example, between 1886 and 1895, there were 943 military engagements in the American West compared with only six or seven in the Canadian Northwest Territory. Of enormous importance in aiding the efforts of the R.C.M.P. was the fact that the central Canadian government worked vigorously to restrain western

settlement until the Indians had been pacified. Consequently, the R.C.M.P. was not nearly as burdened as was the American Army with the task of safeguarding large numbers of western settlers from Indian attack. While seemingly more orderly and less combative, the Canadian police model did not, in fact, prove successful. It was rather the far more massive and belligerent campaigns of the American Army to the south that broke the resistance of the Great Plains Indians on both sides of the border.¹⁰¹

A second, very different strategy of Indian control was that of the Texas Rangers. Basically, in dealing with the Comanche and other tribes, their technique was to out-Indian-the-Indian, including, on occasion, the ferocity of combat. The Rangers attempted to drive their opponents to ground and then decisively engage them, exploiting the enormous firepower advantage of their Colt cap-and-ball revolvers to the fullest (the Rangers had these weapons in action some twelve years prior to official Army service adoption); an average company of one hundred and twenty men, armed with two revolvers each, could discharge a then mind-boggling total of fourteen hundred and twenty rounds without reloading compared to the earlier total of one hundred and twenty with single-shot weapons. When the Cossack-like Rangers were infused with military discipline, as in Rip Ford's famed 1858-1859 campaign on the Canadian River against the Comanches, the results could be devastating against the

Indians.¹⁰² The United States Army, inherently a military force and governed in its actions by its professional code of honor, chose instead to corral the Indians, who were at once their adversaries and in effect, their wards, onto secure reservations.

The concept of the American Indian held by Army officers was marked by a profound sense of ambiguity. Many officers, according to the popular stereotype, did find the Indians to be savages--cruel, selfish, treacherous, disgusting in their personal and societal habits and inveterate beggars,¹⁰³ As forcibly articulated by Lieutenant William Averall, there was something quite demeaning in the nation's practice of squandering its West Point graduates on the lowly and occasionally dishonorable duty of Indian control:

With all the elements of science and rudiments of art with which we had been loaded during the four years ((at West Point)), we were... now to be used simply and sadly to supervise the learning and disciplining of soldiers and to train them in the art of killing Indians.¹⁰⁴

As a rule, the greater the ferocity and the larger the variance from accepted practices of American culture, the greater the dislike of such Indians by members of the officer corps. One Army wife, Theresa Viele, writing for her husband, a captain, described the Comanche in the harshest of terms: "there could not be a blacker record of infamy and rapaciousness. The Comanche possesses no vestige of the noble traits of the redmen of the northwest." Rather, "he is a bloody, brutal licentious, and an innate thief."¹⁰⁵

Such perceptions, however, reflected only part of the complex set of viewpoints held by members of the officer corps concerning the Indian, who as Surgeon Gilsan pointed out, "range from the primitive savage to the half-civilized...."¹⁰⁶ The perceptions of individual officers thus varied with their own personal experiences and in turn, due to the particular tribe(s) with which they had contact. Thus, Major-General George A. McCall, as a youthful junior officer serving in Florida in the late 1820s, penned a quite perceptive assessment of the Seminole Indian and his relationship to white society:

The difference in the development of the intellectual facilities as well as moral, had they been by nature carved in the two races, which I am satisfied is not the case... ((lies in)) education or in other words, the habitual experience of the mental moral faculties in the different pursuits of savage and civilized life, would, in the course of ages, have produced the differences between the white man and the red which now exist.¹⁰⁷

Indian warfare, savage and barbaric to most whites, could thus be understood by the professional soldier as a function of his less developed culture, a point which was succinctly stated by Lieutenant Potter:

In war, the Indian has been regarded as a ferocious beast, and therefore life and death was a matter of mere precaution. He goes into battle smarting under manifold injuries and indignities, and he is driven into madness and despair by the overwhelming ruin which results from a war with us.¹⁰⁸

The duty of the Army in regards to the Indian was inherently contradictory, requiring it to protect both red

and white interests. Moreover, the professional ethos of the officer corps, their strong patrician values and sense of aristocratic honor, motivated them to intervene on behalf of the Indians and to protect them from the frontiersmen, particularly the infamous whiskey dealers, for whom they had little affection.¹⁰⁹ Yet with skill and determination, if not enthusiasm, these officers undertook the forced relocations of the Indians further West, onto increasingly less desirable terrain.¹¹⁰ While such efforts were "cruel in the extreme" they were nonetheless carried out.¹¹¹ Perhaps Surgeon Gilsan best expressed the tangled perceptions and values held by Army officers toward "those children of the forest", when he wrote with considerable insight and compassion:

Thus it ever is: the red man of the Atlantic slope must be crowded further west, whilst his race on the far-off Pacific shores, are jostled and pushed towards the rising sun. When at last the great tides of immigration met midway between the two oceans, the remnants of the sixteen millions of those native bands of the soil, that once roamed over this broad land, who shall have left their bones bleaching beneath the waves of advancing civilization. One shudders at the thought of the many blood conflicts yet to occur between these contending races of human beings....

If we are to take history as our guide in determining the future, the right and wrong of those cruel encounters will not always rest exclusively on either side -- but one time with the red man -- at another with his pale-face brother.¹¹²

Whatever its reservations toward the business of Indian control, the Army nonetheless had on occasion to use force

to suppress uprisings. Few comprehensive descriptions of cavalry versus Indian engagements were recorded in the Antebellum period, by American cavalry officers. One exception is the illuminating account by then Second-Lieutenant John B. Hood. The distinguishing feature in this skirmish was that Hood's men, due to insufficient numbers leaving no one to spare to act as horse handlers, fought mounted, rather, than as was customary, as dismounted light infantry. On July 5, 1857, Hood set out from Fort Manon, in the Texas Department of the West, with twenty-five men of Company G of the later First United States Cavalry. Their mission was a routine patrol of the area. After some ten days in the field, Hood's men chanced upon a two or three-day old Indian trail, which the patrol proceeded to follow along a line of dried-up waterholes. The Indians being stalked were suspected by Hood to have been a band of marauders, incorrectly identified as being Tokaways (who usually fought as scouts along side the Army), who had previously ambushed American soldiers whole under the guise of a flag of truce. After several days of difficult travel through the arid, rocky, desert country, Hood's detachment finally came upon the Indian band they had been diligently hunting. Hood's operational strength had diminished to only seventeen men as a consequence of injuries to eight of his horses. Upon reaching the Indian encampment, Hood proceeded to make an initial inspection while mounted. The Indians held a

waterhole, positioning their encampment on a hillock, concealed by thick clumps of Spanish bayonet. What Hood had come across was in fact a band of some one hundred Comanche and Lyan-Apache warriors and their families.¹¹³ While decisively outnumbered, these troopers had the advantage of greatly superior firepower:

Every man was armed with an Army rifle ((e.g., A Sharps 1854-pattern single shot, breech loading carbine)) and six shooter, a few of us had sabers and two revolvers, whilst I was armed with a double barrel shot-gun loaded with buckshot, and two navy six-shooters (.36 caliber as opposed to .44 caliber - officers still commonly purchased their own side arms in this period).¹¹⁴

Indian armament consisted of bows-and-arrows, lances, buffalo hide shields and a few single shot trade muskets (so-called, because they were cheaply made especially for the Indian trade).¹¹⁵ Despite the unfavorable disparity in numbers, Hood elected to close with the Indian warriors or dog soldiers because he, like many other officers, was personally inclined to accept "the belief... that twenty well armed soldiers should be able to successfully engage four times their number of Indians...."¹¹⁶ Such beliefs did not constitute idle boasting or false bravado on Hood's part. The combination of superior firepower, as provided by Colt-Dragoon pattern cap-and-ball-revolvers and Hall and Sharps carbines, with vastly greater discipline, fire control and marksmanship allowed small bodies of troopers to deal with much larger Indian warrior bands.¹¹⁷

Indian tribes did not fight according to European concepts of warfare; tactics as such were largely unknown.¹¹⁸ By-and-large, most cavalry-infantry skirmishes arose from chance encounters; it was the Army which was the aggressor on most occasions. For the most part, Plains Indians fought what were essentially individual battles regardless of how many warriors were involved. The aims of the combatants were completely different: for the Indian, war was a question of honor and necessity, such as contests for horses or valuable hunting land; for the Army, it was their full-time occupation. The first phase of such a battle was for the Indian warriors to charge in mass and then, at about one hundred yards, split into two formations skirting the soldier's position so as to avoid their greater firepower. The Indians hoped to cause sufficient disarray among their opponents so as to draw them into their style of individual, close-order combat. The warrior's greatest achievement lay in the accumulation of personal honor, achieved by scoring coups or touches with a specially non-sharpened stick or performing some other equally brave feat. Killing an opponent, while prestigious, constituted a somewhat lower level of achievement. Once one's personal honor had been vindicated, it was perfectly acceptable for that brave to sit out the remainder of the engagement. And there was no obligation of honor for any warrior to participate actively if he and the spirits did not feel it was a good

day for him to die. In contrast, the Army's soldiers attempted to ensure the death of their opponents by aiming their weapons, unlike the Indian practice of firing in barrage-like fashion, the same as they would when hunting buffalo. Furthermore, the Army fought in controlled, disciplined formations with a clear, concerted object of trouncing their foes.¹¹⁹

Returning to Hood's narrative:

When we were within about twenty or thirty paces of the mound occupied by the Indians... a force of them advanced towards us with the flag ((i.e., a white sheet fraudulently out as a flag of peace)). Suddenly they threw it to the ground and fired upon us.¹²⁰

The Comanche and Apaches proceeded to launch their attack, on foot and horse, against Hood's detachment:

Thus began a most desperate struggle. The warriors were all painted, stripped to the waist, with either horns or wreathes of feathers upon their heads; they bore shields for defense, and were armed with rifles, lances and arrows. The full and sharp report of our rifles, the smoke and encroaching noise of the fire ((a defensive blaze set by the Indians to screen their women and children)), together with the great odds against us, the shouts of the soldiers and the yells of the Indians, betokened ((sic.)) the deadly peril from which seemingly naught but a miracle could effect our deliverance. Each man after discharging his rifle, drew his revolver, and used it with terrible effect as the warriors, in many instances were within a few feet of the muzzle of our arms. Stubbornly did my brave men hold their ground; again and again they drove the enemy back to the edge and in rear of the burning mass of weeds in our front, when finally the Indians charged desperately and forced our line back a few paces in the centre.¹²¹

Thus raged this hand to hand conflict until all our shots were expended, and it was found that

owning to the restiveness of the horses we could not reload while mounted. We then fell back about fifth yards and dismounted for that purpose.¹²²

At this point in the engagement the Indians broke off the fight, signaled by a loud piercing scream from their squaws for their dead and wounded, with an estimated ten warriors killed. Hood's detachment had suffered two men killed, four severely wounded and several flesh wounds; the unit's commander himself suffered a grievous injury as a result of an arrow which struck his left hand, pinning it to his bridle. After retreating some fifty yards to reload, Hood decided to first care for his injured. Despite his wound, Hood continued the chase, which forced the Indians back on their reservation, first with infantry and then with cavalry reinforcements. Later intelligence from the local Indian agent confirmed the actual loss of nineteen warriors, including two minor chiefs, and many wounded. The Army's dead were buried with full honors, with the following eulogy:

No useless coffin confined his breast
Nor in sheet or shroud they buried him
But he lay like a warrior taking his rest
With his martial cloak around him.¹²³

For his handling of this action, Hood was personally commended by Brevet Major-General D. E. Twiggs, commanding the Department of Texas, and quite unusually, by Commanding General Scott, for his gallantry, coolness and efficiency.¹²⁴

The tactics which the American cavalry adapted for use on the frontier were wholly French in origin; Lieutenant Kearny championed the superiority of their mounted warfare doctrine when he wrote, "in cavalry which... the French, has kept progressing in perfection ever since the great wars of Europe, everything useless has been rejected, and everything... is practiced in the best manner."¹²⁵ The 1841 or so-called Poinsett manual of cavalry tactics was lifted in total from the then standard French work on mounted warfare. At Carlisle Barracks Army horse soldiers were drilled in the techniques and customs of European-style cavalry warfare, while field commanders were left free to devise their own schemes for instructing their men in Indian fighting. And at West Point, save for Captain George H. Thomas's brief tenure (1850-1851) as instructor of cavalry tactics, cadets received no instruction whatsoever in the intricacies of Indian management.¹²⁶

Not only were the cavalry tactics not affected by frontier experience but the Army's equipment and weaponry was equally little affected. The enormous gulf between the formal, professional Army and the ragtag force guarding the frontier, was demonstrated by their continuing commitment to the arme blanche as the primary cavalry weapon. Only a handful of men and officers carried a saber into the field; its principal functions in the West were ones of ceremony and as a badge of rank. Saber charges of the classical,

European variety were virtually unknown in the Indian wars of the Great Plains. Moreover, many a cavalry officer questioned the utility of carrying swords when engaged in Indian fighting. Major Albert Gallatin Brackett pointedly expressed the limitations of the saber, when he wrote:

The saber in Indian fighting is simply a nuisance, they jingle abominably, and are of no earthly use. If a soldier gets close enough to use a saber, it is about an even thing as to who goes under first....¹²⁷

Similarly, Major-General William Hardee argued that in Indian fighting, a saber was unnecessary because:

In marching it makes a noise which may be heard at some distance, perhaps preventing a surprise, and in a charge, when not drawn is particularly an encumbrance.¹²⁸

The cavalry was very deficient, as well, in its firearms. Granted that most soldiers, of whatever branch of service, were only "average marksmen", and that most commanders rarely emphasized target practice, yet the cavalry's firearms were exceedingly inefficient even by the standards of the day.¹²⁹ As Inspector General, Colonel Joseph Mansfield put it in his official report, "the musketoon as arm for the dragoon or mounted man in any way is almost worthless."¹³⁰ While "illy suited" for the demands of Indian fighting, the smoothbore remained in service until the Civil War.¹³¹ The Ordinance Bureau, hidebound in its devotion to orthodoxy in firearm design, fought aggressively to block the adoption of first the Hall carbine, then the Sharps carbine and the Colt revolver as mechanically unreliable, as

too complex to be issued to common soldiers, and far too expensive.¹³²

The uniforms of the dragoons and mounted rifles were wholly unsuited for the rigors of frontier service. Heavy wool cloth, tightly cut and adorned with brass scales on the shoulders to ward off saber blows were fit only for placid surroundings of an eastern parade field. Most soldiers and officers improvised their own personal field uniform, consisting of a mixture of civilian and Army-issued clothing.¹³³ Perhaps the most glaring example of the continuing domination of formal European military doctrine, regardless of actual experience in Indian fighting, can be found in the selection of mounts for the cavalry. The dragoons and the mounted rifles were created specifically to combat the swift and highly mobile Indians of the Great Plains. The Army's leadership, however, desiring to make their cavalry units fit-and-proper according to European military standards, chose standardbreds, thoroughbreds and Morgans as their mounts. Such majestic animals were functionally outclassed by the unimpressive-looking Indian pony. The Army's horses required greater care and were dependent for their sustenance on grain, preferably oats, and not the abundant wild prairie grasses. Not only were the Army's horses inferior as cavalry mounts, in regards to the requirements of Western Indian fighting, they were decidedly slower as well. Furthermore, speed was not an appropriate term to describe a

trooper in the field, weighed with up to a hundred pounds of weapons and supplies. Eventually, cavalry commanders, once having become adjusted to the realities of patrol duty on the Great Plains, trimmed the weight of the loads carried by their troopers to a more functional fifteen to forty pound range. The Army, unlike the Mexicans and the cowboys, never adopted the sensible Indian practice of maintaining a reserve supply of horses for their dog soldiers. The absence of such a remada system, as shown in Hood's account of one fire fight, meant that each trooper had to depend upon his one animal which, in turn, required over eight hours of rest per day.¹³⁴ Thus, to many cavalry officers, orthodox concepts of mounted warfare, as officially adopted by the United State Army, were inappropriate for the requirements of frontier security duty. Colonel Randolph B. Marcy succinctly stated the problem of inappropriate and largely unworkable tactical theory being out of line with tactical reality on the western prairies when he wrote:

The art of war, as taught and practiced among civilized nations at present day, is no doubt well adapted to the purposes for which it was designed viz.... The organization of armies acting in populated districts, furnishing ample resources, and against an enemy who is tangible, and makes use of similar tactics and strategy. But the modern schools of military science are but illy suited to carrying on a warfare with the wild tribes of the plains.¹³⁵

The quaint notion of trying to spear such a swift and dauntless adversary as the mounted American Indians with a lance or sending a relatively plodding cuirassier waving his

saber after such a nimble foe was patently absurd. Yet that was what was prescribed by the Army's manuals on cavalry warfare. Certainly, had the Army been so inclined, it could have developed its own unique school of cavalry tactics, tailored to the requirements of the Great Plains. The Congressional opponents of the regular cavalry emphasized the value of irregular troops, unburdened by the formalities of European warfare ala the Texas Rangers, as a preferable military force for the task of Indian control. The 1833 United States Army had no active cavalry tradition for nearly eighteen years prior to the establishment of the dragoons. As Cooke effectively argued: "the service of cavalry had become with us a forgotten and unknown branch of military knowledge, something to be read of, as we do, of the Macedonian phalanx."¹³⁶ The Army's leadership, however, had dedicated the regular military establishment to the French-Austrian school and the requirements of waging a European-style war, so as to avoid further humiliation of American arms as produced by the War of 1812. There was simply no room for the official sanctioning of deviance from the orthodoxy of European warfare. After all, frontier policing was not even a military task at all but rather a necessary but onerous duty imposed upon the Army by the President and Congress. In addition, even among the hardest and most experienced of cavalry officers there existed a deep, personal commitment to military professionalism.

Thus, for example, Cooke, long a dragoon officer and eventual commander of the First Regiment, could, in the best romantic style of military writing, author a stirring tribute to the ethos of cavalry warfare of the classical tradition:

The speed of a line of charging cavalry, the aggregate of life, motion, mass, and power gives a spiritual momentum to both rider and horse.¹³⁷

The long isolated service on the Great Plains would have appeared to have been a poor incubator in which to develop American military professionalism. Indian fighting certainly provided the Army's officer corps with few if any opportunities to employ their formal skills in the art of war. The political necessity of maintaining numerous tiny forts and garrisons scattered on the western prairies was clearly not conducive to supporting a high level of morale. Colonel Marcy, reflecting a general consensus of the officer corps on this issue, vigorously attacked this practice when he wrote: "The morale of the troops must thereby ((be)) impaired and the confidence of the savages correspondingly augmented. The system of small garrisons has a tendency to discourage the troops in proportion as they are scattered, and renders them correspondingly inefficient."¹³⁸ Considerable amounts of time and labor while on post had to be expended on such non-military chores as heavy construction and farming due to the financially stringent budgets passed by Congress.¹³⁹ Frontier service was hard, tiring, and un-

imaginative work. Most garrison posts consisted of a few huts, a well and little else, situated in the main, far from any town. The privations and hardships of the frontier made Army service unrewarding and unattractive. As one army wife so plaintively put it:

Little does the casual observer of West Point know of the after existence of its graduates and their lives of exile and privation on the frontier, passed in largely seclusion from the world, a stranger to the ordinary comforts of civilization.¹⁴⁰

The arduous requirements of frontier duty were reflected in the exceptionally high rates of desertion. In any given year during the Antebellum period, as much as one-third of Army strength was lost to desertion. This was in spite of brutal corporal punishment, including flogging and branding. Field patrols offered only an occasional respite from the tedium of garrison duty. For officers, there was no formal incentive for pursuing their studies in the art of war. For line officers, there were few of the opportunities for varied and interesting careers available to engineers, coastal artillery and staff officers.¹⁴¹ The grueling and highly taxing nature of frontier service was painfully described by Captain Lemuel Ford, who in his final two years of frontier duty with the First Dragoons (1834-1836) saw his family for only a couple of weeks and who died due to a disease contracted on the Plains: "I am clearly of ((the)) opinion that a soldier be so disencumbered from the things

of the world as to be all wasy ((sic.)) Ready to March, Ready to Fight and Ready to Die."142

It might seem, upon initial examination, that the conditions of western frontier security duty afforded the Army opportunities to employ the doctrine and skills of a European-style military service. Certainly the task of Indian control, with an emphasis upon highly unorthodox modes of warfare, provided no chance for the use of either classical cavalry or infantry tactics or permitted more than the infrequent employment of such key weapons as the saber or the bayonet. Yet valuable lessons of command and leadership were extracted from their long years of frontier service by Army officers. "The Dragoon regiments," as one officer stated it, "are almost constantly upon the move at the West, and the continued marching gives officers and men the practical knowledge of their duties so eminently essential to cavalry."143 The heart of a nation's war fighting system is not the particular tactical and strategical doctrines in use or the weapons which equip their soldiers. Rather, it is the constellation of social, professional, political and intellectual concepts and values that constitute the world view of an officer corps and which in turn, serves as the foundation of a country's war fighting system. Thus, it was the long, unrewarding and solitary years of frontier duty which served to create ties of fellowship and professionalism among members of the officer corps. It was

precisely the isolation and insularity of frontier service that gradually converted the goal of military professionalism in the American Army officer corps into reality. The long hours spent in casual conversation, when officers "fought their battles o'ver ((sic.)), from West Point and the girls they left behind them through the swamps of Florida, the wilds of Texas, over the great plains, the mountains, on the fields of Mexico" as well as other forms of social interaction created the mortar which bonded these soldiers together as professionals engaged in a unique activity as part of a collective enterprise.¹⁴⁴

Granted that individual enmities and personal dislikes between officers, many forged at West Point, were fueled by the smallness of the American officer corps and by the restricted opportunities for career advancement. In the main, however, military professionalism grew strongly in the Antebellum era. Of perhaps even greater importance, to the development of military professionalism were the continual proofs, provided by the various campaigns of the Army during the Antebellum period, of the essential validity of the post-War of 1812 reforms. Thus, the Black Hawk War and the Seminole War served powerfully to demonstrate the key lessons that due to massive and unwarranted political interference, the Army would have to rely on its own expertise to save the nation from foreign invasion and that in turn, reliance on the militia was dangerous and ineffectual.¹⁴⁵

The long years of frontier duty, hampered by grossly inadequate resources and funding, further reinforced ties of solidarity among the officer corps. The ceaseless and frequently unproductive involvement of Congress and the executive branch in what the officer corps viewed as intrinsically internal military matters, further solidified the sense of collegiality among Army officers.¹⁴⁶

Part V

In 1846, the United States Army was finally provided an opportunity to vindicate its faith in military professionalism and the French-Austrian school of war. The Mexican War (1846-1848) offered the Army its first chance since the War of 1812 to field brigade and division-size units. This war can be divided into two parts. The first was the irregular war, fought in what is now the Southwest United States and California. The centerpiece, insofar as the cavalry was concerned, was Colonel Stephen Kearny's almost bloodless seizure of Santa Fe, New Mexico, and his subsequent epic march through the uncharted Southwest desert to California. Kearny, with only one hundred regular dragoons of the First Regiment, prevailed against some five thousand Mexican regulars due to highly efficient and quite unusual close cooperation with a regiment of Missouri volunteer rifles. After almost effortlessly securing his assigned target, Kearny elected to take a proportion of his command westward to the

Pacific. The crossing of some twelve hundred miles of largely unmapped and exceedingly inhospitable country, without incident in three months, was brilliant proof that the United States Army had mastered the difficulties of long range western travel. While fascinating and heroic, Kearny's expedition was at best only a sideshow of the war with Mexico. The only significant application of American cavalry in this war, it was wholly lacking influence on Army tactical doctrine. The real war, to the south, was instead to be fought according to conventional tactical principles, under which cavalry would assume its proper function as an adjunct to the infantry.¹⁴⁷

The Mexican War proper, encompassing the campaigns of General Winfield Scott and Zachary Taylor, was marked by only limited and not particularly effective use of American cavalry. One crucial factor in hindering the field effectiveness of the regular cavalry was the notable lack of regimental unity. Neither the First, Second or Third Dragoons (the latter created by Congress for temporary war service on February 11, 1847) ever served as fully organic cavalry regiments. These units, as with the assorted volunteer cavalry formations, were habitually broken up into ever smaller detachments, doled out to various grades of field commanders when the need for mounted troops arose and when adequate numbers of horses were available. The Mounted Rifles fared much better in retaining regimental unity due

to the humiliating fact that all their mounts were lost when the transport carrying them to Mexico sank in a storm. Surprisingly, only a single company of the mounted rifles ever served on horseback in this war, despite the huge numbers of mounts captured from the Mexican Army.¹⁴⁸ The volunteer cavalry units were rarely more than nuisances, having only marginal offensive combat effectiveness as horse soldiers. According to one regular cavalry trooper, Samuel Chamberlain, sounding the complaint of most dragoons, the volunteers were almost useless:

The material that these regiments were composed of was excellent... the men possessed fine... strength combined with activity, but they had no discipline, or confidence in their officers....

Their impatience of all restraint and egotism made them worse than useless on picket; while in camp, they were a perfect nuisance.¹⁴⁹

The adversaries of the American mounted forces were highly trained, thoroughly European in their organization and tactics and superb horsemen. The Mexican cavalry numbered in the thousands, not counting auxiliaries. In comparison, the Americans never managed to muster more than six hundred troopers on horseback for any given battle. The high level of Mexican horsemanship earned their cavalry ample praise from their North American antagonists. According to Colonel Brackett, who served in Mexico:

Our people had the advantage of larger horses and heavier men as a general thing, but the Mexicans were much more agile, and would handle their horses as well as perhaps any people on

earth... as the Mexicans, accustomed as many of them are to a life on horseback, and all of them feeling a pride in owning horseflesh, it did not take them as long a time to train them as it did us, who particularly those from older states, knew little or nothing about riding or managing horses.¹⁵⁰

American mounted forces played only small, supporting roles in such key battles as Palo Alto, Buena Vista, Molino Del Rey and Mexico City. Their functions were principally ones of drudgery: guarding lumbering supply columns, serving as officer escorts and, more dangerously, hunting down the unprincipled Mexican guerrillas. Even cavalry's traditional forte, scouting, was performed by another branch of the Army--mounted engineers, with horse soldiers acting only as an escort. Aside from organizational disruption and the rough, jagged terrain of Mexico, the primary obstacle to the more innovative employment of American mounted forces lay with senior officers and their devotion to European rules of warfare. Both Scott and Taylor, by training and vocation, were infantrymen, with little more than theoretical knowledge of the use of cavalry in battle. Both officers were professionals, grounded in European concepts of tactics which made cavalry simply a handmaiden of the infantry. Where cavalry participated in major engagements, it usually fought dismounted. The general lack of troops caused the use of every available man--soldiers, Marines, volunteers and even sailors--as infantry. While the fortunes of the cavalry arm did not prosper in the course of the Mexican

War, the Army itself reaped massive benefits. With speed and dispatch, the Army had defeated a much more numerous foe on his home territory and quite distant from its supply sources. Granted that on a contemporary scale of international significance, the Mexican War was a rather piffling affair, it nonetheless was a considerable achievement for American arms. It was in particular, a triumph of military professionalism. Scott's brilliant campaign against Mexico City was a textbook application of Jomini's concepts to the solution of a particularly thorny military problem, which as the Commanding General himself put it, was "to compel a people, singularly obstinate, to sue for peace it is absolutely necessary... to strike effectively at the vitals of the nation."¹⁵¹ Scott therefore directed the main American military effort at the Mexican capital, in classic limited war fashion, avoiding pitched battle as much as possible and having accomplished his objective, forcing the Mexicans to sue for peace.

The relative isolation of the Mexican theater of operations from the United States lessened the availability of the militia forces and correspondingly increased the importance of the regulars; or as Captain W. S. Henry put it, "I can not but repeat, that we all ((i.e., the officer corps)) feel proud that these conquests had been effected by the army proper." That is not to say that the volunteers were unnecessary, far from it, since the regular Army was simply

too small to have undertaken the war by itself. The volunteers, overall, thus fit into the niche assigned them by the Army's warfighting system, as auxiliaries to the regulars. However, as in the earlier frontier wars, the Army retained its strong aversion toward the citizen soldiers as less than effective in battle. The general position of the Army that "campaigning is entirely out of... ((the militia's)) line," was as once again demonstrated by the Mexican War, as was forcefully stated by Henry:

Before this war is over, the government will be forced to confess, and the volunteers freely acknowledge, without any charge against their patriotism or efficiency, that the volunteer system is one of the most outrageously expensive and inefficient way with which any government could undertake a war of invasion.¹⁵²

A more savage criticism of the volunteers was made by a then highly promising Second-Lieutenant of Engineers, George B. McClellan, reflecting a good deal of the Army's pent-up resentment at these amateur soldiers:

I allude to the sufferings of the volunteers. They literally... ((act like)) dogs. Were it all known in the States, there would be no more hue and cry against the Army, all would be willing to have a large regular army that we could dispense entirely with the volunteer system.¹⁵³

The conduct of the war and the subsequent occupation of Mexican soil was conducted with honor and integrity, "that high standard of virtue and honor", according to General Scott, "which we boasted at home."¹⁵⁴ The Mexican War, however, was completely unoriginal in regards to the arts of war. Aside from a few percussion-capped rifles (which Scott

attempted to block from entering service on grounds of ordnance conservatism) there were no differences from the tactics, weapons and equipment used at Waterloo some thirty-two years earlier. Moreover, there were none of the numerous problems of command and logistics that plagued the British Army in the Crimean War to mar the Army's overall high level of military effectiveness. Of course there were still problems between the Army and the executive branch in the division of responsibility in directing the war effort; Scott and President James Polk were almost constantly quarrelling over American war aims and tactics, for example.¹⁵⁵ Measured by results, however, the American military effort against Mexico was considerably better managed than the War of 1812 fiasco. Acceptance of military professionalism thus enjoyed a badly needed and quite considerable boost from the stellar performance of the regulars.¹⁵⁶ West Point, according to Ashbel Smith, as a result of the superb performance of its graduates in Mexico, had "fought itself into favor at home; the science, skill, soldierly deportment, and valor of the graduates of the Academy have gained a great triumph over the prejudices of the ignorant among our citizens."¹⁵⁷

The Army had thus, in the span of only thirty or so years, matured into a truly modern and capable military force. It had done so in the face of massive popular and political opposition, crippled by lack of resources and

manpower and despite its long, odious and dishonorable misuse as a police force to suppress the Indians. The War of 1812 had been the nadir of the Army's prowess and reputation as a fighting force. Secretary of War Cass expressed this point exceptionally well in 1836:

We were comparatively ignorant of the state of military science and we did not fully recover our true position till we had received many severe lessons, at what expense of life and treasury need not be stated.¹⁵⁸

The efforts of the post-War of 1812 reformers-- Gaines, Macomb, Thayer, Calhoun, Scott and the others--was thus vindicated by the triumph of American arms in Mexico. While to many Americans the regular military establishment would remain tainted with the traits of decadent, aristocratic Europe and subject to obloquy and hounded with political opposition, the Army, despite the shrill cries of a few that in fact American victory in Mexico was really the rejection of European principles of scientific warfare, had won for itself a new and valid claim to be vital for national defense and an effective agent of the country's foreign policy.¹⁵⁹ Jefferson Davis, a West Point graduate and himself a hero of the Mexican War as a volunteer officer, in a speech given as a Congressman to honor General Taylor, announced the apparent lessons of the conflict quite effectively when he proclaimed:

Much was due to the courage which Americans have displayed on many battlefields in former times; but this courage, characteristic of our people, and pervading all sections and all

classes, could ever have availed so much had it not been combined with military science. And the occasion seem suited to enforce this lesson on the minds of those who have been accustomed in reason and out of reason, to rail at the scientific attainments of our officers... arms, like any occupation, requires to be studied before it can be understood, and from those things, to which he had called his attention, he will learn the power and advantages of military science.¹⁶⁰

This newly won sense of military honor and the potency of arms enormously increased Army morale and confidence. The final verdict on the effectiveness of the Army in transforming itself into a proper military service was best rendered by Captain Mahan, the United States' foremost military theorist of the Antebellum era. The West Point professor praised the achievements of the professional Army he had labored so long to create:

Of all the civilized states of Christendom, we are perhaps the least military, though not behind the foremost as a warlike one. A sounder era, however, is dawning upon us.... It was reserved for the expedition to Vera-Cruz, and its sequel, Cerro-Gordo, to bring into strong relief the fact, that we were unostentatiously, and almost silently becoming a powerful military state. The lesson will not be lost upon our neighbors, however slowly we, in the end, may profit by it. A shout has gone forth from the Rio-Grande, and the shores of the Gulf of Mexico, which heard on the Thames and the Seine, has resounded along the far-off shores of the Baltic and the Black Sea, and will reach farther Id., bearing with it a significance that no prudent statesman will hereafter affect to misunderstand. What are the military resources of this great republic is no longer a question; a more thorough organization is alone wanting for their complete development.¹⁶¹

Chapter IV

JEFFERSON DAVIS, THE 1856 MILITARY COMMISSION TO EUROPE

AND THE MINIE BULLET RIFLE:

THE REAFFIRMATION OF THE FRENCH-AUSTRIAN SCHOOL

IN AN ERA OF TECHNOLOGICAL AND SOCIAL CHANGE

Part I

The clear victory for military professionalism won by the United States Army in Mexico was translated into tangible gains for the nation's military service in 1853. Congress, at the request of President Franklin Pierce's newly inaugurated administration, approved the largest single increase in Army strength since the War of 1812. In addition to four infantry regiments, two new mounted units were added to the Army's order of battle, the First and Second Cavalry Regiments. Numerically, the strength of the Army expanded from approximately eleven thousand men to over sixteen thousand. For the first time since the War of 1812 the United States Army possessed sufficient numbers of troops to free it from dependence upon the militia save in the largest of conflicts. While the Army was still "inferior to the best armies of Europe," according to the former Secretary of War Joel Poinsett, the 1855 expansion signaled a new era enhanced military effectiveness as well

as new political enthusiasm for military professionalism.¹ In a very clear fashion the nation's political leadership, at least for the moment, had conceded Poinsett's conclusion:

...that no nation, whatever may be its resources and money, can long carry on an aggressive war with volunteer forces, or with a majority of its troops composed of volunteers who have, for the most part, to be drilled and disciplined in the presence of the enemy.²

Succeeding John C. Calhoun as the leading political advocate of a professional military service, was the new Secretary of War, Jefferson Davis. An 1828 graduate of West Point, Davis had soldiered some seven years with both the infantry and the First Dragoons on the western frontier. In the Mexican War, Davis had served with distinction as commander of the volunteer Mississippi Rifles. Davis was an ardent and influential proponent of the regular Army and of military professionalism. A student of military theory and history, Davis's personal philosophy of the art of war was totally Jominean and French-Austrian in character. In his 1854 Report as Secretary of War, Davis succinctly expressed his faith in military professionalism when he formally attacked the opponents of the regular military establishment: "It has been stated... that if in 1831 a small mounted force had been at the disposal of the War Department, the Black Hawk War might have been prevented; and... in 1835, if a few additional companies had been sent to Florida, the Seminole War would have not occurred."³

Under Davis's exceptionally effective administration, numerous significant improvements were made in Army weaponry, force structure and its preparation to wage war against a European would-be adversary. Davis compelled adoption of the 1856-pattern Springfield Rifle of the new Minie bullet type over the strong objections of some senior officers. To accompany this new weapon, a major revision in the infantry manual was authorized by Davis. Moreover, the first pay raises in twenty years were authorized as well as the introduction of a more modern and spiffier uniform, both items aiding the general uplift in the morale of the Army. Fortress design was overhauled as well, during Davis's tenure as Secretary of War, to bring American practice in line with the latest European advances. One of Davis's more whimsical experiments consisted of the formation of a camel corps, patterned on French Algerian experience, for patrol duty in the Southwest.

The establishment of the first American regular units to bear the designation cavalry, complete with the revived use of yellow facings and stripes on their uniforms, was also undertaken in these years. The first and Second Cavalry Regiments were the personal favorites of Davis, and were intended to be elite units. Granted that the less dashing Corps of Engineers and the Corps of Topographical Engineers ranked at the top of the list of career positions and that the cavalry was at the bottom. Yet the tradi-

tional, aristocratic lure of gallant troopers and powerful steeds, as well as Davis's personal involvement in the selection of officers for these regiments, led many promising men to join these units. Moreover, there was a distinct Southern bias to the officers of these two regiments. Officers such as Lieutenant-Colonel Joseph E. Johnson (general CSA), Captain George B. McClellan (general USA), Lieutenant George H. Stuart (general CSA) and Lieutenant James E. Stuart (general CSA) were among the staff of the First Regiment; the Second, in turn, included in its ranks such future luminaries as Colonel Albert Sidney Johnston (general CSA), Lieutenant-Colonel William J. Hardee (general CSA), Captain George E. Stoneman (general USA) and Lieutenant Fitzhugh Lee (general CSA). The predominance of Southern officers in these regiments would later serve as "evidence", during the Civil War, that Davis was in league with some fiendish cabal to create surreptitiously a future confederate mounted service.⁴

The immediate tactical role of the First and Second Cavalry lay in conventional Indian control duty in the Southwest and Texas. These two new regiments, plus the additional infantry units and the camel corps were the operational component of Davis's new, so-called desert plan of pacifying the western frontier. Patterned after Marshal Thomas-Robert Bugeaud's brilliant plan for the French conquest of the Algerian interior, Davis's new program for

suppressing Indian hostilities was intended to correct many of the deficiencies in the Army's earlier stratagem of frontier control. The cornerstone of the great desert plan was the abandonment of numerous small garrisons and the concentration of the Army's troops in large, strategically located forts. The problems of morale, isolation and poor logistical support were simultaneously dealt with by setting major Army garrisons near towns, and on major water transport routes near the edges of the western frontier. The addition to the Army's mounted resources was of vital importance; the desert plan required extensive patrolling and swift and efficient retaliatory action for Indian incursions. This new plan was thus the final abandonment of the static defense system implemented in the immediate post-War of 1812 years, during Jacob Brown's tenure as Commanding General. In turn, the great desert plan would serve as the foundation of the Army's Indian control policy for the remainder of the century.⁵ On the higher level of Army planning and organization, the First and Second Cavalry conformed closer, in theory at least, to European mounted warfare doctrine than had the earlier dragoon regiments. As a former cavalryman, Davis penned an authoritative and informed explanation of the organizational nature of the new mounted regiments and in turn, a withering criticism of earlier Congressional interference in internal War Department and Army matters, as to the composition, mission and equipment of horse units.

The cavalry force of our army being all required for active service of the same kind, there appears no propriety in making a permanent distinction in the designation and armament of the several regiments; it is therefore, proposed to place all the regiments on the same footing in these respects, and to leave it in the power of the executive to arm and equip them in the manner as may be required by the nature of the service in which they be employed.⁶

Davis's policy statement as to the nature of the new cavalry regiments and his sharp rebuke of Congressional involvement, as for example in the mounted rifles, in internal Army matters, had several aspects. The emphasis on unit rationalization into a few specific types (which for the Army's horse units was finally achieved in 1861 when Congress formally redesignated them all as cavalry) was clearly one of Davis's objectives. The specific form of the First and Second Cavalry as all-purpose mounted units, as opposed to being light, heavy or dragoon, was not however intended to improve the effectiveness of the Army's horse soldiers in Indian fighting. As with both the mounted rifles and dragoons, the cavalry followed the usual dismounted, informal tactics of Indian fighting. The emphasis on utility reflected, instead, the then latest fad in European-style cavalry units. Recall the debate between the proponents of heavy and light cavalry over first, which types of mounted units would be required in future hostilities, and secondly, whether advances in firepower rendered the cuirassiers and thus the use of shock as being

obsolete. This rather lively debate peaked late in the 1860s, when cavalry traditionalism reasserted itself. Thus the organizational character of the First and Second Cavalry reflected the perspective of those cavalry experts championing flexibility over tradition; mounted units which could effectively serve all three roles as light, heavy, and dragoons.⁷

On a broader level, that of national war policy, Davis's viewpoint was representative of the new, assertive sense of professionalism then being articulated by the officer corps. The growing sense of group identification among members of the officer corps was strongly articulated by Davis in direct criticism of Congress of overstepping its authority when it had involved itself directly in determining internal military policy matters, such as weapon types or uniform design, which properly were within the jurisdiction of the War Department and the executive branch. In this respect, Davis vocalized a far more direct and pungent critique of Congressional encroachment onto the authority of the executive branch in determining the particulars of national military policy than had earlier been expressed by Calhoun. The officer corps' new influence was the result of Calhoun's administrative reforms, the bureau system, which was thus beginning to assert itself in military policy formation. Thus, through the bureau's superior knowledge of military matters, the determination of the particulars of

Army equipment and organization, swung almost permanently to the executive branch.⁸

Part II

The 1850s background to Davis's Army reforms constituted an era of considerable change in not only military affairs, but also technology and society as well. On the broadest level were major changes in the nature, quality and quantity, of economic output. The enormous increase in the production of iron and the emergence of highly efficient steel manufacturing processes resulted in immediate changes in the nature of weapons production. The use of steel not only allowed for considerably higher levels of weapon performance, but also facilitated standardized and easily repairable machined parts which significantly reduced the costs, in both time and money, entailed in the manufacture of arms. Artillery, for example, was virtually reborn as a weapon system. No longer were clumsy reinforcing bands needed around the muzzle; unit construction permitted the use of much stronger charges of powder, hence greater range and the use of larger and more potent projectiles.⁹ The development of mechanized, factory assembly lines for the production of weapons, allowed for unheard of speed in equipping large numbers of troops with the tools of war.¹⁰ The railroad worked to dramatically multiply the quantities of goods and men which could be moved from one area to another. The speed of army movement, as regards the number

of miles per day, escalated from a maximum of sixty to eighty miles by forced march to between one hundred and two hundred and fifty by rail. And a unit transported by rail suffered none of the debilitating effects to unit efficiency and fighting power which followed a forced march.¹¹ Steam power also revolutionized ocean transportation. Ships were no longer captive to the currents and winds, sailing times dropped by as much as half and the size of cargos expanded. Steel in turn was being employed in the construction of larger, faster and more durable vessels than had heretofore been possible.¹² Communications were transformed as well, due to the invention of the telegraph. For the first time in history, senior army commanders could immediately and effectively direct military formations dispersed over distances of hundreds of miles.¹³

These new technologies were known to military leaders; the problem, however, was a lack of perception of how deep the impact would be on the practices of war. Moreover, except for the Prussians and their centralized staff command system, no army of this period possessed one central body to oversee and manage significant technological change. The series of innovations, which converged into a new industrial order in the 1850s, was not, however, without precedent. The agricultural revolution had by the end of the Eighteenth Century caused an enormous increase in fodder and food production. Consequently, there was a dramatic increase in

the ability of nations, during the Napoleonic Wars, to support armies of unprecedented size, hundreds of thousands in number, without the massive damage, as in the previous Thirty Years War, to the agrarian resources of those countries.¹⁴ Similarly, the considerable improvement in road construction in conjunction with the widespread building of canals had significantly increased the mobility of armies and the capacity of logistic nets during these wars. Furthermore, the enormous increase in army size and the corresponding growth in mobility occasioned the development out of the quartermasters corps the first general staffs in European military history.¹⁵

The most immediate effect on military theory and planning lay in the field of artillery improvement. The 1850s seemed to be the beginning of a new era in military tactics in which artillery would finally come to dominate the battlefield. The Queen of Battle only began to assert herself as a dominant weapon during the Napoleonic Wars, as the French Imperial Army, saddled with ever more poorly trained soldiers, shifted the tactical emphasis of battle from the bayonet to the cannon. The new iron and steel rifled cannon of this era could throw a shell the astounding distance of over two thousand yards compared to the rather feeble eight hundred or so of the smoothbores. Accuracy was greatly improved as well, with the introduction of the new weapons. The enthusiasm of the artillerists was in no way

dampened by the then little-understood fact that there was no way of directing long range cannon fire on land. Traditionally, smoothbore guns, characterized by relatively long range and flat trajectory, were unlimbered close to the forward edge of battle to be used as scatterguns. Such weapons could be directed very effectively against line-of-sight targets such as fortresses. Except for a small number of howitzers, featuring short range and high angle fire, little attempt was made to deliver indirect fire on enemy troops shielded by protective cover or to direct counter battery fire against enemy artillery. The problem lay in being able to observe the enemy's positions without the obstructions of smoke and obstacles and in turn being able to communicate quickly this information to the gunners. Artillerists for the previous three hundred or so years had developed their art on the basic premise that their target would be visible; the difficulty was therefore how to develop a system of indirect fire control by forward observers, with more effective field communication methods than flags, bugle calls or messengers, and in turn, having the gunners accurately deliver fire out of sight of and miles from their target. At sea, in contrast, with wide expanses of flat, open water, long range fire was not only possible but was in fact, standard for naval gunnery by the mid 1850s.¹⁶

The aspect of the new arms technology which would have the most immediate impact was the less impressive but vastly improved rifled musket. For one hundred and fifty years the primary weapon of the infantry had been the smoothbore musket of .54 to .75 caliber, firing a lead ball three quarters of an inch or so in diameter, weighing nine to twelve pounds and some eleven feet in length. Between forty and fifty yards, the smoothbore musket was a truly terrifying weapon. The hail of lead generated by a line of musketeers at this range hit with the impact of a huge shotgun, inflicting fearsome casualties. At greater distances, however, effectiveness greatly declined. One British ordnance expert, Colonel Henger, in 1814, expressed quite well the widely understood limitations of the smoothbore musket when he stated:

A soldier's musket, if not exceedingly ilbored ((sic.)) as many are, will strike the figure of a man at 80 yards... but a soldier must be very unfortunate indeed who shall be wounded by a common musket at 150 yards, provided his antagonist aims, and as for firing at 200 yards you might as well fire at the moon.¹⁷

As with all smoothbore weapons, the ball once fired, followed a trajectory that soon became excessively curved and erratic. Consequently, therefore, this severely limited the range of these weapons. Moreover, a smoothbore musket with an attached bayonet could not even be aimed. There were no rear sights and the primitive front sight (usually no more than a small knob of metal at the end of the barrel)

was completely obscured by the bayonet socket ring. Accuracy of this weapon was therefore minimal; only an average of between 0.2 to 0.5 percent of all rounds discharged per engagement, or about one out of every thousand or so, actually registered a hit. In effect, therefore, in order to kill a man in an attacking infantry column, one had to fire up to seven times an average man's weight in lead balls. Hence, in order to maximize infantry firepower, the troops of the line were arrayed in tight, compact formations and ruthlessly trained to function like well-programmed automatons. The weapon itself possessed many possible dangers to the soldier using it. The flash of the ignition powder in the pan of the weapon not only obscured vision, it could, on occasion, even blind a man. Slight variations in the quality of powder could cause significant changes in the force of the recoil or even cause the weapon to explode. Frequently, in the heat and confusion of battle, men forgot if the weapon had in fact been discharged, reloaded and in turn caused the double or even triple loading of the piece, the excess charges causing the weapon to explode. And if a soldier were a mere foot ahead of the firing line, his eardrums would be instantly ruptured by the discharge of a volley. Furthermore, the soldiers had to move in formation, to within one hundred yards of the enemy before fire was normally commenced, exposing themselves to the full weight of a counter volley. Infantrymen, first and foremost, had

to be experienced and highly disciplined for Eighteenth Century tactics to work. For men to stand fire under such circumstances and in turn to be calmly able to receive the still more frightening bayonet charge, when they were dispassionate mercenaries, frequently dragooned into service, demanded the most brutal of corporal punishment. Consequently, the terror of being caught as a deserter had to outweigh the risk of staying in formation.

From a design standpoint, the smoothbore had other significant failings as a weapon. The exposed panner meant it could not be used in inclement weather. And it was unreliable as well; out of an average 6,000 rounds fired from flintlocks, there were an average of 922 misfires or one in each six and a half rounds discharged.¹⁸ There were, however, no better weapons available to European-style armies. Tactically the one hundred and sixty years prior to the Civil War can be defined as a process of experimentation and refinement, of finding the best means of making do with the smoothbore in battle. Volley fire was expressly devised so as to concentrate the greatest number of projectiles at a specific target. The fundamental principles of effective volley fire were well described by Eighteenth Century military writer, Bland Humphrey, an accounting which would remain valid through the Civil War:

Draw your enemy's fire if you can, and if your battalion still advances you must win...it being certain that when troops see others advance, and going to pour in their fire amongst them when

theirs is gone, they will immediately give way, or at least it seldom happens otherwise.¹⁹

The solution to the numerous and manifest deficiencies of the smoothbore musket lay in the development of the military rifle, "the most formidable description of small fire-arms yet known," according to Lieutenant Richard Nicholson Magrath of the British Army.²⁰ The problems in making the rifle a truly practical replacement for the smoothbore musket, were, however, complex and extremely technical.

The rifle had been in use, principally as a sporting weapon, since the early Sixteenth Century. The distinctive grooves (or rifling) carved into the interior sides of the barrel, served to give the rifle ball greater velocity and higher angle of trajectory. The result was a considerable improvement in both accuracy and range relative to the smoothbore musket. The famed Kentucky or Pennsylvania rifle of Davy Crockett was accurate up to four hundred yards while the British Baker rifle, used in the Peninsular Campaign (by the rifle brigade) could do work up to three hundred yards. Mass use of rifles by armies, however, was simply not feasible. The overriding technical problem was the slowness of reloading the weapon. Whereas a smoothbore musket, in the hands of an average infantryman, could be fired at the rate of three or four rounds per minute, the rifle, at best, could be discharged no more than once every two minutes. The difficulty in reloading the rifle arose from the fact that

the soft lead ball had to be forcibly rammed down the barrel. The rifling, to which the ball was forced to conform by use of the ramrod and thus causing the characteristic spin of the projectile when fired, worked, however, as well, to obstruct passage of the round down the barrel. In fact, it was not uncommon for riflemen to resort to the use of hammers to pound the ramrod home when the ball became stuck in the barrel. A second major problem with most rifles was that a bayonet could not be attached. The dangerous combination of an exceedingly slow rate of fire and the lack of a bayonet caused the rifle to be loathed by most infantrymen. Still another major failing of the rifle lay in the poor fit between the rifling and the ball (since both were handmade, no standardization was possible, further imperiling performance). This resulted in the gas created by the ignition of the powder charge being able to escape, reducing velocity and range, and in turn causing the weapon to foul far faster than a musket. Thus, after the discharge of only a few rounds, the barrel became so obstructed as to cause a sharp decline in range. The combination of technical problems, the active hostility toward the rifle by most line soldiers and the resulting need for highly trained and quite expensive specialized units to use this weapon properly, worked against the wider employment of the rifle as a combat weapons.²¹

The first major technological improvement in infantry weaponry since the development of the flintlock musket-bayonet combination was the invention of the fulminate of mercury percussion cap. In 1807 Reverend Alexander Forsyth of Scotland patented use of this substance as the starter charger for the musket; permitting the detonation of primary charge by striking instead of by ignition. Only in the 1830s, however, was a practical means found to package the fulminate of mercury. The use of an enclosed copper cap containing a small amount of this material allowed for the first practical use of muskets in rainy weather since no powder was exposed to the elements. Variously invented by any number of persons, including the celebrated British gunsmith firm of Montan, Egg and Purdy, by Colonel Hawken and by Joshua Shaw, a British artist resident in Philadelphia as early as 1814, the percussion cap dramatically reduced the number of misfires and thereby improved accuracy or at least combat effectiveness. For every one thousand rounds fired, the number of misfires fell from four hundred and eleven to four and a half and the number of hits rose from an average of two hundred and twenty to three hundred and eighty-five. Adoption of the percussion cap by military services was, in spite of its clear superiority, exceedingly slow. In part this was a function of cost, the expense of converting existing weapons to the new system; in part, the traditional conservatism of ordnance bureaus and, in part,

the organizational gulf between line officers and staff weapon-experts. The United States, for example, only ordered the complete change-over to the percussion cap in 1848 and then, at a virtual snail's pace. While percussion cap was a significant improvement in the capability of the smoothbore musket it did not, however, solve the major problems of limited range and accuracy.²²

The key to any successful improvement in the rifle lay in the development of a practical cylindro-conical or oblong bullet, to overcome the problem of slow loading time for this weapon. Various experimenters, both military and civilian, labored on a solution. The ideal form of such a new rifle would have been a breechloader, provided that some form of effective sealer could be applied to the breech to prevent escape of propellant gasses. Only Prussia aggressively moved to develop a breechloader as its primary service weapon. The famed Prussian needlegun, perfected in the 1840s but only issued to line troops in 1851 for security reasons, was the first massed-produced military rifle. The weapon, however, was far too heavy as was its projectile, which due to a vastly higher rate of fire, created severe problems, for the first time, of ammunition supply. Nonetheless, the needlegun possessed an excellent effective range of eight hundred yards and like all breech loaders, and quite unlike the smoothbore musket, could be reloaded from the prone position.²³ The United States Army

flirted with the use of the Halls rifle and carbine for some forty years prior to the Civil War. Despite the weapon's clear superiority in official ordnance tests and the enthusiasm of most line officers who came into contact with the Halls weapons, the Ordnance Bureau steadfastly refused to authorize large scale production of this firearm.²⁴ Two principal objections were marshaled by traditional ordnance experts against the breechloaders; first was the issue of whether such a weapon could bear up in the field, in the hands of poorly educated soldiers. It was feared that, "No breach-loading weapon can stand the wear and tear of a campaign, and the careless and awkward usage of the soldier."²⁵

The second objection was drawn from tradition and the use of the flintlock musket for the previous one hundred and fifty years:

If by breach-loading... it was possible to fire ten or twenty times a minute, the result would be a great increase in noise and smoke, with no more effect [than a smoothbore musket].²⁶

The combination of military and fiscal conservatism forced most inventors to follow the so-called French-Belgium solution: using the existing format of the musket to make a better rifle. The culmination of these labors was the inaccurately labeled Minie "ball" rifle. The technological breakthrough of Captain Claude Etienne Minie, of the French Army, was the use of a pillar in the breech of a muzzle loading rifle. This device was driven by the force of the

detonation of the percussion cap into the base of the bullet so that it would cause the latter to expand into the grooves of the rifling. In turn a cup was placed at the base of the bullet which the pillar struck; it was this cup, in conjunction with the discharge of gas from the powder explosion, instead of the earlier method of ramming, which forced the projectile into the rifle grooves. The United States Ordnance Bureau quickly devised a superior version of the new Minie-bullet. The improved projectile used a steel stem or lige, attached to the base of the bullet, which worked "as a wedge to spread out the ball" and thereby causing it to assume the shape of the rifling when fired.²⁷ The key advantage was a greater conformity of bullet to rifling and a corresponding reduction in the loss of propellant gas. The effectiveness of these new weapons was astonishing. Clearly, as Captain Emric Szabad pointed out, "the new firearms present...a most formidable apparatus of destruction, both from their precision and wide range...."²⁸ Effective range mushroomed from sixty or one hundred yards to eight hundred or more; reasonably skilled shooters were assured good accuracy with some models up to thirteen hundred yards. Furthermore, the use of pre-packaged paper cartridges (to be replaced in only fifteen years by the modern projectile-propellant enclosed bullet) served to increase the speed of reloading the weapon. Therefore, as

many as twelve rounds could be fired a minute. And it could be used under almost all weather conditions.²⁹

The basic tactics of battle, as practiced by armies on both sides of the Atlantic, in the years prior to the Civil War, as succinctly described by General Henry Halleck in 1861 were based on the technological limitations of smooth-bore weaponry.

The attack is first opened by a cannonade, light troops are sent forward to annoy the infantry, and if possible, to pick off his artillerists. The main body then advances into lines ((i.e., deployment from column to linear formation)); the first displays itself in line as it arrives nearly within range of grapeshot ((about 200 yards)); the second line remains in columns of attack formed in battalions by division at a distance from the first sufficient to be beyond the reach of the enemy's musketry, but near enough to support the first line or cover it if driven back. The artillery, in the meantime, concentrates its fire on some weak point to open a way for the reserve which rushes into the opening and takes the enemy in the flanks and rear. The cavalry charges at the opportune moment on the flank of the enemy's columns or penetrates an opening in his line, and cutting to pieces his staggered troops, forces them into retreat, and completes the victory. During this time the whole line of the enemy should be kept occupied as to prevent fresh troops from being concentrated on the threatened point.³⁰

The impact of the Minie-bullet rifle and its progeny on conventional, post-Napoleonic tactics was in time to be devastating and even world shattering. Over a century of carefully thought-out military theory and hard-earned experience was effectively rendered obsolete. Shock tactics, relying on cold steel, no longer made sense. Formerly, infantry could safely approach to within one

hundred and fifty yards of an enemy's line before coming under effective fire from their adversaries. Smoothbore cannon, particularly of the horse artillery variety, could no longer gallop up to within three hundred yards of opposing infantry and provide direct fire support in relative safety. Their gunners now would be easily picked off by ordinary soldiers armed with the new rifles long before their pieces could be unlimbered, let alone brought into action. Moreover, even medium and heavy smoothbore cannon, with effective ranges of no more than eight hundred yards, were well within the range of trained snipers armed with the new rifles. Cavalry charges were rendered virtually useless. Infantry fire, from entrenched field positions, would annihilate mounted units long before they could successfully close with their adversaries. While such difficult and harrowing facts were to be stumbled upon in time by the military services of the United States and Europe, the awesome reality of just what the new rifle could in fact achieve was, in the 1850s, largely understood only by a handful of ordnance officers. One such officer, Captain Camdus Wilcox of the United States Army, in 1859 described the startling effectiveness of the new rifles:

In service use of the improved rifle it may be confidently asserted that battles will be more destructive than formerly, a greater number of balls will take effect, it will be difficult for the soldier to find himself in the presence of the enemy, and... [resulting] fire beyond the range of his present piece.³¹

Formerly, the position of the enemy could be approached to within 300 yards without experiencing much loss from the fire of the infantry. Now this fire is destructive at 1000 or 1200 yards, and well directed at 600 yards becomes irresistible. The range of the rifle, permitting battles to commence at considerable distances without great care on the part of the general, his whole line may become exposed at once to a destructive fire, the position assigned to troops not immediately engaged will require as much attention as those that are engaged.³²

Insofar as the cavalry was concerned, the effect would be to foreclose the effectiveness of shock tactics:

Formerly, cavalry could take as its position in columns of squadrons in full view of the infantry to be charged, at a distance of 40 yards, and could approach within 300 yards without experiencing much loss. At this distance it moved against ((the)) infantry, first at a trot, then gallop, and finally at full speed.... Even with the smoothbore musket, the cavalry charge against infantry, to be made with a probability of success, had to be in general proceeded by the fire of artillery; or the infantry must have been already exhausted or demoralized from its contest with other arms.... Under the existing conditions of the infantry armament, cavalry will be within its sphere of action at 1200 or more yards, and as it approaches nearer, the fire will become more and more destructive.³³

The foundation of Captain Wilcox's conclusion was a series of ordnance tests, first undertaken in Great Britain and later duplicated by every leading power, including the United States, with the new infantry arms. The 1855 and 1856 Hythe trials were conducted with the new English Enfield rifled musket, with which, according to Captain Sazaband, "a tolerably good rifleman will now fire with effect at 600... ((to)) 800 yards."³⁴ The 1855 test pitted twenty-seven infantrymen against a theoretical infantry

column, firing of the guns being carried out at five hundred and fifty yards (or the tail of the column) and at two hundred and twenty yards (the head). Within four minutes the infantrymen had succeeded in decimating their imaginary foes under fairly realistic battle conditions. And in 1856 a similar test was conducted against a theoretical artillery battery at a distance of eight hundred and ten yards, resulting in complete destruction of the unit in only three minutes. These tests were clearly devastating in their results on the effectiveness of conventional tactics. They were also either ignored or even incomprehensible to most military leaders. Firing at targets was one thing; firing at real adversaries, capable of returning fire was another. Moreover, there were significant problems of perception as regards the meaning of the term "firepower". The criticism of the breechloader, regardless of whether it was capable of being fired ten or twenty times that of a musket, stated above, was characteristic of most military thinking of this period. The comprehension of officers as to the effect of concentrated fire was expressed usually as the weight of the volley or the number of projectiles discharged. What was absent was any real understanding of the effect of multiplying the rate of discharge and thus creating zones of fire. Precisely the same lack of comprehension blocked the later adoption of the machine gun, in large numbers, prior to World War I.³⁵

The great master of the French-Austrian school of War, Baron de Jomini, initially examined the weaponry with trepidation, as to the potentially grave consequences on the process of military science in civilizing warfare:

The means of destruction are approaching the perfection with frightful rapidity. The Congreve rockets...the shrapnel howitzers, which can throw a stream of canister as far as the range of a bullet, will multiply the chances of destruction, as though the hecatombs of Eylau, Borodino, Leipzig, and Waterloo were not sufficient to decimate the European races.³⁶

In its first, limited employment in the Crimean War of 1856, the Minie-bullet rifle's impact was largely negligible. And in the 1859 War of Italian Unification, the French trounced the Austrians with the bayonet, instead of exploiting the capabilities of their new rifles. Jomini, along with most other officers, concluded that there would in fact be no telling affect on battle as a result of the new weapons:

The improvements in firearms will not introduce any important change in the manner of taking troops into battle, but that it would be useful to introduce into tactics of infantry the formation of columns by companies, and to have a numerous body of good riflemen or skirmishers, and to exercise the troops considerably in firing.³⁷

Thus there would be little direct affect on tactics by the Minie-bullet rifle, save for a slight increase in the importance of sniper fire. The formal response of the United States Army to the Minie-bullet rifle was the issuance of a new manual of infantry tactics. Major William Hardee, at the direction of Secretary of War Davis, under-

took a limited revision of General Scott's translation of the official 1836 French manual of infantry tactics. The changes introduced by Hardee were relatively minor. Of note were the introduction of two new commands for the movement of infantry; the double quick time (ninety steps per minute) and the run (120 steps per minute). The greater exertions required for these evolutions earned Hardee's tactics the sarcastic label of a "Shanghai fire drill" from both officers and soldiers.³⁸ In part, the lack of substantial change in infantry tactics was due to the problem of controlling troops in battle. In the heat of combat and the general din of war, auditory signal devices such as drums and bugles were largely useless. Alternative methods such as runners, flags or heliographs were equally unsuccessful.³⁹ Thus, prior to the development of the radio, small unit tactics as practiced today were highly impractical; troops command was still premised on the Frederickian concept of soldiers as mercenary robots. Loss of control over individual units, it was thus feared, would result in wholesale desertion while under fire.⁴⁰

On a deeper level than the mere technical aspects of infantry tactics, were the powerful restraints of tradition and experience of aristocratically oriented armies. Thus Jomini, with complete confidence, could conclude that in the end, regardless of the greater lethality of the Minie-

bullet rifle, orthodoxy would prevail, as before, on the battlefield:

In spite of the improvements of firearms, two armies in battle will not pass the day in firing at each other from a distance; it will always be necessary for one of them to advance to the attack of the other.

That victory may with much certainty be expected by the party taking the offense when the general in command possesses the talent of taking his troops into action in good order and of boldly attacking the enemy, adopting the spirit and quality of troops...to his own character.⁴¹

Fundamentally, therefore, understanding of just how potent the impact of the new rifle could be on orthodox tactics was lacking among most officers of this period. Simply put, it meant comprehending the fact that the new weapon had more than twice the rate of fire of the old one, with at least six times the effective range, which could be used in all weather conditions and was machine built, at very little expense and in vastly greater numbers than its predecessor. Granted that the actual range at which most soldiers could be reasonably expected to aim and hit a target was about two to four hundred yards, yet the very fact that a common infantryman could now actually pinpoint his fire at such a range was still a great change from the old smoothbore musket.⁴² An even greater problem of perception for traditional military leaders involved the concept of firepower, of the effect of the rapid discharge of many weapons in a confined space. Thus, for example, the quite typical assessment of Dutch cavalry officer J. Roemer,

a traditionalist in the field of mounted warfare doctrine, of the general lack of impact of the new rifles on battle tactics:

Infantry must...depend wholly on its fire, it has time to deliver only two volleys and these with largely the power to cripple every sixth horse. Experience shows that the effect of musketry is very trifling at more than three hundred yards and within this distance it is not prudent to try more than two discharges ((i.e., before the cavalry descended upon the infantry's position.⁴³

As late as 1868, after making a thorough study of the American Civil War, Lieutenant-Colonel George T. Denison, of the Canadian Army and one of the most progressive and reform-minded cavalry officers of his day, could just as easily misgauge the impact of the rifled musket on mounted tactics:

From 800 to 400 yards cavalry can advance at the trot in about one minute and a quarter. In that time some six or seven shots may be fired, but practically with no effect, the rapidly changing distances, the difficulties of guessing the proper elevation to strike a moving body, the necessity of having the sights accurate, will do away with much danger from these shots. From 400 to 100 yards--300 yards at a gallop will take half a minute, two shots can be fired in this time, leaving one for the last hundred yards, which can be run over in ten seconds.⁴⁴

The problem with these calculations is that they lacked understanding of the impact of volume of fire. A single rank formation of a cavalry company covered some three hundred yards. For two minutes or so it could be expected to be under concentrated infantry fire, from say an infantry company. Assuming a reasonable rate of fire of six rounds

per minute, a total as high as twelve hundred projectiles would be placed into those three hundred yards occupied by two hundred men and an equal number of horses. In turn, a bullet, when fired, travels at a speed of between eight hundred and five thousand feet per second, far faster than any horse. The resulting zone of fire would be such as to destroy the cavalry company or at least render it hors du combat. Moreover, the infantry would be deployed in the protective square formation or, as was increasingly the fashion, entrenched or positioned between defensive cover, further reducing the cavalry's potential effectiveness.

Aside from the lack of understanding of the effect of tremendously increased firepower, there were other intellectual problems associated with the adaptation by Nineteenth Century armies to these new weapons. Take for example the deceptively simple problem of how to train a soldier to "aim" his weapon. The basic pattern of using small arms of military purposes had been by volley. With an attached bayonet it was simply not possible to line the barrel of the piece with a desired target. Secondly, the very limited range of the smoothbore musket ruled out the use of long range fire. Finally, the paramount emphasis in infantry tactics on shock and the use of cold steel, reduced engagement of foot soldiers to short range, hand-to-hand engagements. Targeting a firearm was a matter left to the sportsmen and the hunter; many European light infantry

units, in fact, were, as in the case of German jaegers, former woodsmen recruited for their superior marksmanship. Soldiers were almost never given any instruction in how to direct their fire accurately. Since the infantry fire had been, for several centuries (at least as far back as the Fifteenth Century and the decline of the crossbow) equivalent to the scatterlike fire of a shotgun, there were thus no immediate historical examples of mass aiming of weapons to be drawn upon. Notice the repeated assertions of the authors above that the greater speed of fire would be negated by the inability of the soldier quickly to aim his weapon. Putting aside the issue of volume of fire, it is instructive to understand how a weapon was aimed in this period. Target weapons featured elaborate sighting systems while hunting firearms relied upon the experience of the shooter. Basically, one selected a target, determined range and speed of movement, if applicable, and then carefully sighted and fired. Such methods were necessarily too complex and too slow for use in combat, save by highly specialized soldiers. Only gradually would armies begin to master the techniques by which groups of soldiers could speedily identify and hit targets. The modern system of combat aiming began to be experimented with in the 1860s. Essentially the rifle is treated as an extension of the person, it is thus pointed at the center of the desired targets and the weapon leveled so the bullet will strike

about six feet above ground. In effect, therefore, the soldier shoots as if he were making a bayonet thrust. Though some difficulties as directed-firing by troops in battle seemed insurmountable, rendering the superior range of the new rifles useless, a few ballistic experts were already attempting to solve the problem. According to Captain Wilcox, the future promised a revolution in how a common soldier would manipulate his weapon in combat--the shift from volley and bayonet to firepower and controlled shooting:

He will be inspired with more confidence knowing the range and accuracy of his arms. At great distances he will no longer fire by hazard, but will use his elevating ((i.e., aiming)), at short distances, knowing the power of his rifle, he will fire with the utmost coolness, and with a certainty the smoothbore and round ball could never inspire.⁴⁵

The Industrial Revolution was, in addition to profound changes in technology, causing as well, considerable alterations in the composition and orientation of civil society that was to affect greatly the conduct of war. The Minie-bullet rifle was not simply a matter of improved hardware. As the question of aiming shows quite clearly, an intellectual as well as a social revolution in military science and organization was needed to exploit fully the possibilities of the new arms technology. Guilbert, in the 1760s pioneered the column as the solution of the complexities and failings of Eighteenth Century linear tactics. The intellectual breakthrough and in unison as opposed to the

earlier method of starting each movement from a fixed point and defining it as an end-to-itself. It was only until the French Revolution and the immediate need to convert untrained citizens into soldiers that Guilbert's concepts could finally be exploited to the fullest and in turn, under Napoleon, destroying the fundamental Eighteenth Century maxim that one army could not destroy another.

Similarly, the basic revision in the science of war made possible by the Minie-bullet rifle was one which required a massive redefinition of military theory and organization, which transcended such relatively mundane matters as increased range or firepower. Rather it offered the immediate end to the Frederickian tradition of soldiers as mere robots. The weapon required the use of loose-skirmish-order tactics in place of tight, disciplined formations. Neither exposed linear or column formations, designed to accommodate traditional volley fire and the bayonet charge, were practical against the fire of the Minie-bullet rifle. Even with such modifications as those developed by Hardee to conventional infantry tactics, of increasing the speed of movement, there was simply no way to close with an adversary without suffering massive casualties from his fire. To disperse men on the battlefield, however, demanded considerably more than simple tinkering with the infantry manuals. As shown by the French Revolution, effective soldiers could be trained in Guilbertian tactics

in about eight weeks; the Minie-bullet rifle, in turn, further speeded up training time.

The emergence of large middle class, urban populations and the development of national political culture on both sides of the Atlantic was as well rendering the principles of limited warfare anachronistic. The idea of war fought for limited gain by competitive princes, with small professional mercenary forces was increasingly out of line with mid-Nineteenth Century society; the Crimean War, for example, with popular involvement in the war effort by ordinary citizens and coverage in the newspapers was a portent of still greater change. The new style of tactics would require a willingness to trust the initiative of individual soldiers. Men would thus have to be led, not driven into battle, and non-commissioned officers would have to be redefined from brutal task masters to team leaders. The armies of the trans-Atlantic military community, save for Prussia, however, continued to plan and wage war as it had been done for the previous one hundred and fifty years.⁴⁶

Part III

The 1850s were in the United States, as well as in Europe, an era in which change in the military arts was beginning to be officially analyzed. Two major technological advancements, steam powered ships and the new rifled naval artillery threatened at once to sweep aside the twin

pillars of the Calhoun-national war policy. For the previous forty years the basic war-planning assumption of the Army had been that a minimum of three months was necessary for a European power to transport and deploy an initial invasion force; that in turn, sail powered ships could not support a force much larger than fifty thousand men for any extended period of time; and that the nation's masonry seacoast fortresses could withstand naval bombardment long enough for reinforcements to arrive. Thus, the army would have sufficient time to enlarge its forces and in turn be ready to meet a European invader. By the 1850s, none of these assumptions were valid. Steam powered ships could carry tens of thousands of men in a matter of weeks to America's shores and in turn, effectively supply them. The naval rifled cannon rendered America's coastal fortresses useless; they could now be demolished in a matter of hours, as opposed to weeks in the past. And the army was now saddled with a vastly greater country to defend, in regards to total area, including the two sea coasts.

In order to bring American military doctrine and practices in line with the latest breakthroughs in the science of war, Secretary of War Davis, in 1856, arranged for a military commission to undertake a grand inspection of the leading armies of the day. Moreover, the then on-going Crimean War offered a splendid chance to view the new hardware and doctrines of war in operation and in turn,

allow the army to gather invaluable field data on the fighting capabilities of potential enemies. The officers selected for this Commission were Majors Richard Delafield and Albert Mordecai and Captain George Brinton McClellan.⁴⁷ The first two officers were noted experts in their respected areas of military science (Delafield, fortifications; Mordecai, artillery), both were senior West Point professors and in their fifties. The third member of the Commission, Captain McClellan, was the representative of the mounted arm, a line officer with the First Cavalry (although his corps affiliation was with the Engineers) and barely thirty. McClellan was by no means an elder and accomplished officer in his supposed area of specialization; in fact, he had been in the saddle, as it were, for less than a year. Rather this plum was awarded to him as recognition that he was one of the most promising and gifted young officers in the Army.⁴⁸ The composition of the Commission reflected the War Department's concern that rifled artillery had rendered the nation's seacoast defense system ineffective. Delafield and Mordecai had strong engineering backgrounds, equipping them to understand collateral military advances such as steam-powered ships. The assignment of a would-be cavalry officer to the Commission reflected Davis's personal bias toward the cavalry. The absence of any representative of the King of Battle, the infantry, was characteristic of the general lack

of interest or understanding of the Minnie bullet's considerable impact on orthodox tactics.⁴⁹

The Commission toured the principal Crimean battlefields, although most of the fighting was over by the time they landed in Russia. The Crimean War had been largely traditional in the military technology used by both sides and even more so in the tactics. Most innovations that were tried out in this war--rifled naval artillery and steam powered ships (the Minnie-bullet rifle was in limited use with French and British troops, who, however, continued to employ traditional tactics) among others--had little direct bearing on the battlefield as such. Yet the crippling failures of logistics of the British Army demonstrated the need for greater improvements in military organization and logistics.⁵⁰ The military theorists of the day, while noting the interesting new developments in the tools of war, generally defined the Crimean War as unrepresentative of future wars. Jomini expressed this position quite aptly when he wrote:

This...contest between two vast entrenched camps, occupied by entire armies...is an event without precedent, which will have no equal in the future, for the circumstances which produced it cannot occur again. Moreover, this contest cannot influence in any respect the great combinations of war, or even the tactics of battle.⁵¹

Yet the Crimean War did, as one of the last, traditional examples of Eighteenth Century war, herald the beginnings of a significant alteration in the nature of war

occasioned by the first arms race in history and by the effects of social and political change on the conduct of war.⁵²

Cooperation with the French and Russian military services was difficult, but the British amicably welcomed the Americans. The return to the United States was routed through the leading European states. Thus the trio of American officers was able to scrutinize the military establishments of France, Great Britain, Austria-Hungary and Prussia, centering much of their attention on depots and fortresses. The reports that were subsequently published of their observations were of mixed quality. Delafield's Report on the Art of War in Europe and Mordecai's Military Commission to Europe were objective and professional in nature.⁵³ Delafield concentrated on his area of specialty, fortifications, while Mordecai emphasized the latest advances in artillery and other aspects of military hardware; both authors, as well, provided illuminating intelligence on virtually every other important aspect of military science and the capabilities of the leading European armies.

In striking contrast to the reports of the two senior members of the Commission, McClellan's European Cavalry and The Armies of Europe (both of which were privately published and distributed far more widely than either of the two government-produced reports) were flaccid and exceedingly indiscriminating. What was clearly absent from McClellan's

official reports were practical and comprehensive assessments of the military effectiveness of the various cavalry services of Europe. Moreover, McClellan made little effort to evaluate the combat worth of cavalry in the Crimean War; certainly the infamous charge of the British Light Brigade merited considerable inquiry as to the future prospects of horse soldiers in battle. One can learn from McClellan all kinds of quaint but largely useless trivia such as the types of drums used in the Prussian Army or even the relative merits of Sardinian wooden water caskets. Yet nowhere did the young Captain attempt to evaluate or analyze his data; rather McClellan was apparently content simply to report, without investigation or inquiry. The British Cavalry, for example, widely rated as the worst of any major power by the leading cavalry theorists of the day, was cheerfully presented in terms of its formal order of battle without a whiff of criticism by McClellan. One of the positive gains for the United States Cavalry service was the adoption of the Hungarian saddle (albeit that the original horsehair cover, due to the extreme discomfort it caused, was replaced by one of tanned leather); McClellan, in describing this key piece of cavalry equipment, however, did not lay out a process of evaluation from which the reader could trace out and comprehend how he arrived at the merits of his conclusions. The reason for McClellan's lack of analysis stemmed from the fact that, unlike either Delafield or Mordecai, he

was not an experienced student of his assigned area of the art of war. In fact, McClellan's understanding of cavalry theory was superficial at best. Analyzing European cavalry theory and practice on the basis of official tables of organization and elite demonstration units was for McClellan, the representative of a second rate power, akin to letting loose a very studious child in a marvelous store of infinite wonders, all very pretty and overwhelming in their splendor.⁵⁴

As an official observer of the major European cavalry services, McClellan was to exert considerable influence on the development of the American cavalry in the late Antebellum years. Yet McClellan, despite the adoption of a new saddle and helping to pave the way for the formal adoption of the new single-rank mounted tactics, was thoroughly traditional in his analysis of cavalry. The image of a young, overly enthusiastic junior cavalry officer, in effect a novice journeying as part of a distinguished United States Military Commission to study at the feet of the masters as it were, is well supported by McClellan's fanciful and utterly impractical notion of transforming Plains Indians into Cossacks:

It is impossible to repress the conviction that in many of the tribes of our frontier Indians, such as the Delaware, Kickapoos & c., we possess the material for the formation of partisan troops fully equal to the Cossacks, in the event of a serious war on this continent, their employment, under the regulations and restrictions necessary to restrain their tendency to un-

necessary cruelty, would be productive of most important advantage.⁵⁵

Far more biting was McClellan's assessment of the types of mounted units then in Army service and in turn, what improvements were necessary. Echoing Davis's argument for general-purpose cavalry, McClellan listed all the conceivable and probable types of wars in which American mounted units would be needed. The classifications of armed conflict which McClellan entertained in his report were the same essential types which had been the focus of national war policy since Calhoun's tenure as Secretary of War. What was not at all likely, McClellan concluded, was a full-scale, unrestrained and nationalistic struggle, of the Napoleonic variety, which of course had, as a consequence of the Congress of Vienna in 1815 and the emergence of scientific concepts of war, been exercised from the lexicon of armed hostilities. Thus three possible uses of cavalry for three types of potential wars were enumerated by McClellan:

- a. use against the Indians;
- b. to repel foreign invaders [which due to the limited capacity of mid-19th Century ships, would be woefully short of cavalry;
- c. an offensive war involving limited use of cavalry [as in Mexico].⁵⁶

Thus:

It could therefore, seem that heavy cavalry would be worse than useless for our purposes, and that we need only light cavalry, in the true and strict sense of the term.

Since the primary purpose of such cavalry would be frontier security (the East, as per traditional doctrine,

was supposedly unfit for conventional mounted units), McClellan argued that:

The tactical unit should be small, that it may be handled with the greatest possible ease and celerity, and that it may never be broken up. The regiment, also, should be small, for the same reasons.

It followed therefore, that:

The nature of cavalry service in the United States being quite different from that performed by any in Europe, we ought not to follow blindly any one system, but should endeavor to select the good features, and engraft them upon a system of our own.⁵⁷

Superficially, McClellan appeared to have addressed many of the concerns of frontier officers as to the need to maintain unit integrity as well as authoring a uniquely American form of mounted warfare. McClellan, however, most certainly did not desire to cut loose American cavalry practices from its theoretical umbilical cord to European traditions and doctrines of mounted warfare. Thus, as in accordance with classical cavalry theory, McClellan wrote: "the firearms...", of a mounted formation, "...used solely on guard, vedette, & c., to give the alarm, it being taken as a maxim to trust the saber." Furthermore, "against the Indians of our plains, who have no sabers, the far reaching lance would be no doubt an effective weapon; yet a light saber would be about as much so, and far less in the war."⁵⁸ Thus, in the grand tradition of mounted warfare, the strength of the cavalry is always in its "spurs and sabers."⁵⁹ What McClellan, who had no experience at all in

Indian fighting, intended was not the creation of a unique American style of cavalry adapted to the requirements of the Great Plains. Rather he was clearly in the long tradition of professional officers, dating back to the efforts to turn the First Dragoons into a proper European-like mounted unit, who were dedicated to the classical tradition of horse soldiering. Thus the desire to prepare the cavalry to fight a "real" war with a European adversary. The adoption of such useless European practices as the lance or saber, as argued for by McClellan, demonstrated his lack of comprehension of the practical requirements of Indian fighting.

The professional American Army approached the irksome task of Indian control as a non-military activity, of little honor, as the price for its dedications to the European-style of war. None of the official Army manuals, cavalry or otherwise, up to the 1850s, had made the slightest reference to the unique tactical problems of Indian fighting. Rather the Army chose to leave such problems to the discretion of individual field commanders. For example, General Dabney Maury, recalled in the 1890s, that in the late 1850s, as a consequence of frontier fighting and McClellan's examination of contemporary cavalry doctrine, a new system of tactics was introduced which:

...would enable men to dismount quickly and use their rifles [Sharps carbines] on foot and demanded also single rank formations. By this new system of tactics, a troops... could be moving at the gallop, and when the trumpet sounded, 'Dismount to fight', could halt, link their horses,

and be handling their rifles in line of battle...
[within] seconds.⁶⁰

While startlingly similar to later, innovative Union cavalry practice, Maury's statement is unsupported by any cavalry manual in use in the United States before or during the Civil War. Moreover, in its use of decidedly nonstandard cavalry tactics, it represented a clear departure from McClellan's emphasis upon orthodoxy in mounted warfare practice. Either Maury was reading later events back into his history (he was a Southern cavalry commander) or (more likely was referring to the growing emphasis on musketry in this period--confusing the traditional mounted warfare manuals with the seat-of-the-pants, ad hoc cavalry practice of frontier commanders.⁶¹ Only Major-General Philip Cooke, one of America's pre-eminent cavalry experts made a specific reference to Western military conditions in his own, official manual of cavalry tactics. Yet Cooke wrote nothing more than such common sense advice as the need for greater camp security; there is no mention or even hint of a detailed and unique body of frontier mounted warfare principles.⁶² McClellan clearly suggested in his official recommendations that most American frontier cavalrymen did not define themselves as true horse soldiers or considered that their grubby work constituted true mounted warfare. Fundamentally they were little more than mounted gendarmes forced to do the dirty work of Indian control. The professional Army, the one dedicated to fighting an invading

European army in the classical manner of the French-Austrian school of war, paid scant attention to the unique requirements of frontier security duty. Only one American officer, an anonymous Captain of infantry, actually formulated a unique system of war to deal with the elusive and extraordinarily mobile Plains Indians in the Antebellum era. Unerringly, this author rejected the use of classical European tactics as being inappropriate as well as ineffectual:

It [the Army] was...warfare in a country of resources and of comparatively contracted space, and for operations against forts, fieldwork, lines of men, communication or supply, or something that was accessible [which] could be found and seen.⁶³

The formal tradition of post-Napoleonic warfare was unsuited to the demands of the frontier security according to the Captain:

This condition is changed; and so the system. The change consists in the field of operations, its extent, resources and people. It is almost the entire country, washed by the waters of the Rocky Mountains...destitute of resources, its people...without permanent habitation, independent of agriculture, good hunters and horsemen and, with few exceptions, hostile.⁶⁴

The failure of the Army to undertake a complete reorientation of its tactics to meet the unique problems of the far West, lay in the military's unshakable commitment to European style warfare, according to this Captain:

Those having the power are looking across the Atlantic to France, waiting to adapt her practice in similar exigencies, while our officers are at least the equals of the French officers, and our men superior. Our line officers, have no voice,

they bear these evils and exercise the same quiet stoicism under existing deficiencies which they tolerate, the incubus, the man who shuns his duty or throws it on his superior, and with which they endure their life-long exile, and we have the material to make, as good light cavalry and infantry as any in the world. France felt a similar need in Algeria and she has her chasseurs d'Afrique and spahia....⁶⁵

It is time we acted upon our necessities. Europe comes to us for pistols and rifles, and we take back the latter, altered but not improved.⁶⁶

The assessment offered by this Captain of the limitations of the French-Austrian school of war carried no weight in official circles. Nonetheless, this officer brilliantly identified and criticized the futility of applying orthodox, European concepts of war to the American frontier. Unlike McClellan's romantic, and rather simplistic call for traditional light cavalry and for the conversion of the Plains Indians into Cossacks, this Captain's remarks were directly attuned to the actual difficulties of frontier security duty. Moreover, unlike the direct importation of French Algerian practice in unconventional warfare, as embodied in Davis's great desert Indian control plan, this Captain's concepts reflected, instead, the very originality of Marshal Bugeaud in developing unorthodox tactics uniquely suited to North African conditions. Thus, the development of Indian fighting tactics uniquely designed for the Far West. Specifically, therefore, "the inadequacy and unfitness of present organization...such as the injustice to heavy cavalry [i.e., the Dragoons] and infantry of employing

them to subdue a nation of mounted spies who have no home and leave no trace."⁶⁷ The correct, and pointedly unorthodox method of solving the prickly problem of dealing with an exceedingly mobile and fleeting adversary as the Plains Indians, was set forth by the Captain when he wrote:

To control these people or making a step towards doing so, it is proposed to do what has often been done before with a people to be conquered: take a lesson from them. Assimilate and equalize the two by giving to the soldier the horse, arms and dress of a hunter, the wont of which prevents his efficiency, without giving up the present organization for attacks and self support groups of fours [i.e., a kind of early fire team system adopted by some Western commanders].⁶⁸

The tactics which were in turn devised by this Captain constituted what could be defined as the nucleus of modern counterinsurgency tactics. The emphasis was on the use of small units, not dissimilar from today's LRPs (long range reconnaissance patrols) teams combined with the speed and endurance of the Indian dog soldiers. Specifically, he advocated the creation of a special, commando-like corps combining light infantry and light cavalry (but distinctly not of the usual European variety)--the former to deal with the Indians in mountainous terrain, the latter for pursuit on the Plains. The proposed armament would be principally breechloading carbines and revolvers plus sabers if required for close-quarter work.⁶⁹ The record, both before and after the Civil War, however, reveals no instance of such strikingly original tactics being employed by the Army. Thus

frontier commanders continued, as in the past, to make do with the existing, very ill-suited resources at their disposal in handling frontier security problems.

In the main, during the years immediately prior to the Civil War, the official, professional Army rededicated itself to its essential mission, the defense of the United States against foreign tyranny with the doctrines, weapons and equipment of the French-Austrian school of war and of contemporary France. The advent of radical technological, economic and social change was little understood and little exploited in the final years of the Antebellum era. In 1861 the United States Army would find itself fighting a mass, industrial and nationalistic war of survival. This was clearly not the kind of war predicted by either the strategists of the French-Austrian school of war or by McClellan in his official report. The United States had greatly changed since Calhoun's tenure as Secretary of War. What had been a minor power, perilously perched on the outer fringes of European civilization was now a continental size nation, a growing commercial power, increasingly urban in its social make-up.

The Calhoun war policy lay in ruins by the mid-1850s; casemate seacoast fortresses and the concept of the skeleton army were rendered obsolete by the development of steam powered ships, by the great improvements in naval artillery and by the considerable westward expansion of the country.

Yet the very French-Austrian school of war was already obsolete before its first theorists attempted to set its ideas down on paper. Only Prussia and General Clausewitz had fully understood that the Napoleonic Wars were truly the portent of future nationalistic tussles between warring peoples, dominated by ideology and by industry and technology. The Guilbertian tactical revolution demolished the cardinal military tenet of Eighteenth Century limited war doctrine, namely that one army could not move with sufficient dispatch to encircle and destroy another. It had as well made the need for a Frederickian, robot-like army of mercenaries obsolete as well. In turn, the Minie-bullet rifle, the culmination of the gradual shift toward firepower as dominating the battlefield since the end of the Seventeenth Century, rendered not only the formal tactical systems obsolete but also the principles of command and leadership. And it launched the armies of the trans-Atlantic military community on to the first arms race; weapons would be redefined and improved not every couple of hundred of years or more as in the past, but now every fifteen or less. However, to the vast majority of military officers and theorists, until World War I, the full impact of such radical change was at best, ill-understood and in the main ignored.

POSTSCRIPT

The Antebellum frontier experiences of the American cavalry had no direct effect upon the development of mounted warfare practice during the Civil War. Both Confederate and Union horse soldiers gradually adapted to the dense woodland terrain of the Eastern United States, through the use of dismounted tactics. Yet, the charges and the arme blanche continued to dominate formal Confederate and Union cavalry practice until 1864. The southerners achieved more success initially due to the simple fact that Confederate military commanders had to use their mounted volunteers due to the initial absence of any military organization. The North, however, blessed (or more aptly, cursed) with the existing Antebellum army organization dutifully, according to European cavalry doctrine, blocked the formation of state horse units. Only political pressure and the demands of field commanders for cavalry caused the military's senior leadership to begrudgingly accept such troops.

The initial Southern superiority in the large scale use of cavalry stemmed directly from support from senior Confederate commanders for their horse soldiers. Thus, Confederate cavalry performed better in the field due to

retaining their organization integrity (Union regiments, in contrast, were broken up and scattered among various larger units) and better leadership. Confederate Captain John N. Opie expressed very well the initial low opinion held by both southern and northern military men of horse soldiers.

It was the custom of the infantry to taunt and jeer the cavalry whenever the opportunity arose. They called them, the 'Buttermilk Rangers'. If the cavalry was going forward, they all cried out, 'No fight today, the 'Buttermilk Rangers' are going to the Front'. If they were going to the rear, they shouted 'The Buttermilk Rangers' running from the yanks, lookout for a battle.⁷⁰

It was such stunts as Colonel Jeb Stuart's 1862 ride around General McClellan's Army of the Potomac during the Peninsular campaign which greatly improved the morale of Confederate cavalry. In turn, rebel horse units won a measure of support from senior Confederate generals. Yet, the South failed to develop any advances in cavalry tactics; horse soldiers were wasted on unproductive raids. Such experiences--hard charging units scoring a few quick successes--is but of little substantial military value. Only the Confederate guerilla leader, General Bedford Forrest developed a form of highly mobile mounted infantry as an alternative to orthodox cavalry tactics. The traditional lack of firepower of horse soldiers and the logistical problems of supporting a cavalry field force crippled Forrest's efforts at devising a highly mobile Confederate strike force.⁷¹

In 1864, during the wilderness campaign, General Sheridan radically altered Union military practice. Essentially his thrust toward Richmond was not a raid, rather, his sole purpose was to draw out and destroy Confederate mounted units. The real break-through in Union cavalry, came with Brevet Major-General James Harrison Wilson. Incredibly, only twenty-three years old, in December, 1864, during the Battle of Nashville, Wilson's cavalry forces, fighting both mounted and dismounted and exploiting the enormous fire power of their seven-shot Spencer carbines, played the key role in annihilating General Hood's invading army. The culmination of Union innovative cavalry tactics was Wilson's 1865 Selma expedition. Combining firepower and mobility with the simple Napoleonic logistical solution of living off the land, Wilson's cavalry army destroyed the last major industrial center of the confederacy, crushed Forrest's army and captured Selma, protected by some of the most formidable defenses of the Civil War.⁷² While there was no direct link to the Antebellum army's frontier experience, the innovations of Wilson were of the same sort as earlier army officers' ad hoc solutions to the difficulties of western and southeastern border control. Thus while the French-Austrian school of war, overall failed during the course of the Civil War, professionalism allowed for the development of innovative and dedicated officers.

FOOTNOTES

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The development of military professionalism was by no means a complete success. Certainly, the vigorous and frequently virulent politicking of even senior officers in the public domain, for position within the Army was not conducive to the achievement of political isolation of the military as required by the tenets of professionalism. In the 1820s and 1830s professionalism by-and-large was practiced by Army officers in their official capacity as soldiers but not in their own private sphere. Slowly, nonetheless, as more West Pointers entered the officer corps, professionalism grew substantially in dominating, however imperfectly, the perceptions and beliefs of the Army's leaders. Moreover, a strong, administratively centralized Army emerged, which unlike its pre-War of 1812 predecessor, was fully capable of warding off the attacks of its many critics and riding out fluctuations in popular opinion toward the professional military establishment. The Army which emerged in the years 1815-1821 would not alter its essential mission, its professionalism or its doctrine until late in the Civil War. It remained until then, a modern, progressive military service, the embodiment of the French-Austrian school of war.

CHAPTER II

THE FRENCH-AUSTRIAN SCHOOL OF WAR: STRATEGY, TACTICS AND CAVALRY WARFARE

Part I

Two great war-fighting systems emerged from the wake of the Napoleonic Wars. For the preponderance of the Nineteenth Century, military science in Europe and the United States was dominated by the tenets of the French-Austrian school of war.¹ Within its ranks could be numbered such luminaries of the new science of strategy as Archduke Charles of Austria, Colonel Henry Halleck of the United States and Colonel Patrick MacDougall of Great Britain. Its grandmaster was Baron Antoine Henri de Jomini of Switzerland and France, whose clear, precise and traditionally-grounded writings served as the foundation of the nascent concepts of military professionalism, science and education on both sides of the Atlantic Ocean.² The other school of strategy was that of Prussia, and was led by General Karl von Clausewitz, whose writings would only begin to have influence on the trans-Atlantic military community after France's crushing defeat in 1870. In the Antebellum era, Clausewitz was known to some American officers (his seminal treatise, On War, is listed in Halleck's bibliography to Elements of Military Art and Science for example), but generally was not

influential since the Prussian's writings constituted such a radical departure from the orthodox military tradition.³

The French-Austrian school of strategy constituted the conservative military reaction to the excesses of the French Revolutionary and Napoleonic Wars. It embodied the conservative reaction against the legacy of the French Revolution as manifested by the Congress of Vienna in 1815. Fundamentally, as the keystone of the French-Austrian school of war, Jomini and his followers concluded that the Napoleonic Wars were an historical fluke, a brief retreat into the ideologically-motivated style of the earlier Thirty Years War. They advocated that the Eighteenth Century limited-war tradition should be restored so that wars would once again be limited in purpose and scope. Essentially, the French-Austrian school failed to come to grips with the militant nationalism, the development of citizen armies, the importance of ideology and the increasing importance of economics and technology in determining the outcome of armed hostilities. These innovative aspects of the French Revolutionary and Napoleonic Wars were not comprehensible to traditionalists like Jomini, who expected the profession of arms to resume its function as an increasingly scientific and yet deeply heroic and aristocratic discipline.

As a second fundamental conclusion, future wars would not assume the colossal scale of the Napoleonic Wars. Army size would shrink to the proper size of fifty to two hundred

thousand men. Such small armies would accommodate fully the needs of professional military services with only limited requirements for reserve forces. Such numbers reflected the optimum size of a military force which could be commanded and directed with orthodox principles of command and leadership doctrine. A warrior commander could, with traditional line-of-sight techniques and without the necessity (or nuisance) of a large staff and more complex, sub-army formations such as divisions or corps, direct no more than fifty or so thousand men. Essentially, the warfighting system of the Antebellum American Army was that of the French-Austrian school. In turn, the French-Austrian school, in the main, was a slightly updated version of Eighteenth Century limited war. The goal of limited warfare was to minimize, to the greatest possible extent, the cost to society of war by insulating it from its worst and most destructive effects. This same goal motivated the professional soldiers of the post-Napoleonic era, in their quest for a cleaner, more scientific warfare.⁴

Strategically, warfare was, from the Seventeenth Century on, essentially a function of siegecraft until the French Revolutionary and Napoleonic Wars. None of the uncertainties or hazards of pitched battle in unfamiliar enemy country were present in a well executed siege. The geometrically precise techniques of siegecraft were certain and highly effective. Armies on the move, on the other

hand, were subject to an iron law of declining effectiveness, as wear and tear increased, as the discipline of the parade ground flagged and as desertion increased. While siegecraft could, if bungled, result in an army penned between a fortress and an adversary's field forces, it was far less risky than open battle.

Still another brick in the foundation of limited war lay in the tactical movement of armies. Due to the pronounced limitations of Eighteenth Century drill systems, one army could not maneuver with sufficient dispatch or celerity to force a second into battle or even surprise it. Pursuit of a retreating foe was not feasible, save in the extremely rare case of a rout. The danger was that the pursuing army would be drawn out and extended over many miles, thus providing a very tempting target to the enemy.⁵

Army mobility was further imperiled by the paucity of good roads and navigable rivers, a problem which only began to be solved by the close of the Nineteenth Century. Maps were in short supply and of exceeding poor quality. Principles and techniques of army direction were those of line-of-sight command; the warrior commander was, due to the primitive quality of signal communications and the absence of staffs, personally required to lead his men into combat. Arms technology placed limitations on the nature of war. The flintlock musket and bayonet combination, mandated the use of highly trained and disciplined soldiers; the close

order nature of battle in these years, compelled by the limited range of the musket, resulted in the frightfully high average casualty rate of between thirty and forty percent per battle. The need for highly-disciplined, veteran (most men were in their mid-thirties) soldiers led commanders to place a premium on experience over youth, proficiency over agility and strength and discipline over innovation.⁶ The combination of all of these varied factors, in conjunction with the limited financial resources of agrarian, pre-industrial states and the scarcity of all kinds of military resources, established a strong inclination against the free expenditure of manpower in battle.⁷

The French-Austrian school of war, however, did not simply revive Eighteenth Century warfare in total. Instead, they forcibly grafted upon this earlier military doctrine Napoleon's emphasis on the offensive. The defensive character of limited war was thus augmented, if only in spirit, by a new emphasis on the offensive; or as forcibly stated by Jomini:

Battle once resolved upon, be the first to attack; if the defensive is to be avoided in the general conduct of war, it is entirely unreasonable in action. It is a known fact that the offense, besides its tactical advantages, excites the ardor and courage of the men. Thus, when compelled to fight, always advance towards the enemy, unless you are under the cover of impregnable entrenchments, and even then always manage some outlets that will allow you to debouch from them.⁸

The fundamental maxim of grand tactics, according to American military writer Jacob K. Neff, was "to attack the most vulnerable point of the enemy, which conquered, would be the most decisive in terminating the war."⁹ At the same time however, the goal of war remained firmly within the limited war tradition--competitive states resorting to the use of armed force, when other methods had failed, to redress grievances against their neighbors or for limited strategical gain such as acquiring, a valuable port or a desirable treaty concession.¹⁰

The French-Austrian school of strategy therefore fused the defensively centered concept of limited war with Napoleon's penchant, for offensive warfare.¹¹ The real failure of the French-Austrian school of war, in a strictly military sense, was in not understanding how the radical changes in tactics brought about by the French Revolutionary Wars and later exploited by Napoleon with such outstanding success, had in fact washed away much of the bedrock of limited war theory.¹² This failure of comprehension foreshadows the later problem, beginning in the 1840s, of how radical technological change, including armament, could as well change the practice and nature of warfighting.¹³

Contradiction was the hallmark of the French-Austrian school. What thus issued from this marriage of opposites was a system of war in which the attack was everything and in which the frontal assault was hailed as the true test of

an army's martial prowess. At the same time, however, this body of military science, with equal emphasis, counseled the studious avoidance of pitched battle. Combat was to be accepted only when one possessed a decisively superior tactical advantage. Furthermore, while championing the spirit of the offense, what would in time be called the elan vitale, war, in accordance with the tenets of Jominian strategy, was waged for limited political objectives and goals, in the classic Eighteenth Century manner.¹⁴

The competitive strategical system was that of Prussia and General Clausewitz. The Prussian school serves to highlight the deficiencies of their competitor's system. Inexplicably, it was one of Europe's most traditional and autocratic states that pioneered a wholly different school of warfighting. As the heirs to the grand legacy of Frederick the Great, the shattering defeat at Jena in 1806 by the upstart French armies was world shattering in its impact on the Prussian high command. It was almost incomprehensible to the senior Prussian army commanders how the ragtag, undisciplined citizen soldiers of France commanded by an ex-corporal could so totally whip the once pre-eminent military power of Europe.¹⁵ The basic premise of the revamped Prussian warfighting machine was completely contrary to the French-Austrian brand of military science. Wars were defined as being struggles between not only warring nations, but warring peoples as well. Consequently,

huge conscript armies would be required, dependent upon the availability of well trained, ready reserves; the regular army would therefore not bear the brunt of the war alone but instead would serve as the leader of a collective national effort. Fundamentally, the Prussian concept of war was militantly aggressive; the quaint gentlemanly notion of limited war being shunted aside. In addition, the concept of soldier as robot, as in Frederick's day was forever replaced by a new and radically different emphasis on teamwork. Prussia, became the prototype of the modern nation in arms, with the army on a permanent footing.¹⁶

United States Army warfighting doctrine was completely Jominian in the Antebellum era.¹⁷ Tactical theory, whether artillery, infantry and later, cavalry, were wholly based on standard French manuals, translated into English. Winfield Scott's 1818 and 1836 infantry manuals represented no more than formal ratification of the 1816 and 1833 French works.¹⁸

Part II

The classical tradition of mounted warfare constituted a very traditional and aristocratic body of military doctrine, increasingly out-of-place in the post-Napoleonic era of scientific warfare.¹⁹ The cavalry was traditionally regarded as morally superior to all other branches of army service on the ground that it was blessed with inherently

greater endowments of aristocratic virtue, honor and elan than the more plebian infantry or technocratic artillery. The hallmarks of the mounted service were its zeal, its nobility, its richer sense of honor and its superior style and audacity.

The golden or classical age of European cavalry ran from the 1640s to 1815. In the mid-Seventeenth Century, Gustavas Adolphus of Sweden almost singlehandedly resurrected the use of cavalry as an effective tool of war. Prior to the classical age, cavalry had been in a state of severe decline. Its utility as an effective military weapon had withered due to the introduction of vastly improved missile weapons and the revival of the phalanx. Gustavas, through the development of combined arms doctrine, developed a means of redressing the balance of warfare so as to allow for a renewed, if more circumspect, role for mounted troops. Small light-weight cannon (falconets) were introduced in combination with detachments of musketeers to provide direct fire support for the Swedish cavalry. While this technique, due to improvements in artillery, of mixing infantry and cavalry in the same tactical formation, below that of the division was declared taboo by later cavalry theorists, it was nonetheless, a significant break-through in mounted warfare in its day. The key to Swedish cavalry success lay in this effective use of missile fire in disrupting opposing infantry formations prior to launching the horse soldiers on

their headlong, and hopefully, decisive charge. The net effect was a dramatic revival of cavalry effectiveness.²⁰

Insofar as the specifics of mounted warfare were concerned, Gustavas made a crucial advance, perhaps the single most significant one prior to the Civil War, in cavalry organization by reworking his horse soldiers into a disciplined and controlled fighting force. In order to maximize their shock potential, Swedish cavalry was reorganized into formal military units, expressly designed to engage the enemy as a tightly disciplined and controlled military force and not as a mob on horseback. To this end, cavalry was, for the first time, deployed in a linear formation of three ranks, replacing the traditional, densely clustered cavalcade assemblage. Tactically, cavalry deployment would, over the next two-hundred-and-fifty years, be largely a matter of gradually reducing mounted formations to double and single rank formations. In regards to armament, Gustavas authored a revival of the arme blanche, or in this case, the saber, as the quintessential cavalryman's weapon, a position that the sword would retain into the 1930s.²¹

The next great era of cavalry development was initiated by Frederick the Great of Prussia. Inheriting one of Europe's worst mounted services, noted for fat troopers on slow plow horses, Frederick transformed his cavalry into the most effective horse units ever created in the classical

tradition. The key improvement lay in the use of artillery. Specifically, Frederick created the first true horse artillery. Consequently, the Prussian mounted service was provided with its own organic fire support. Horse artillery consisted of small, highly mobile cannon drawn by teams of fleet horses bestride which rode the gunners rather than being transported in a separate wagon. Thus hard-moving mounted units, for the first time, were assured of having ready artillery support capable of marching their own high rate of movement. This system represented a further enhancement of the crucial principle of combined arms; tactically, the horse artillery served to pulverize opposing infantry formations so as to facilitate an effective cavalry attack.²²

Frederick's cavalry attained a level of training and organization never achieved before or since by classical European mounted units. Due to the efforts of the first military veterinary service and the first army breeding farms, the Prussian cavalry was provided with excellent horses. Tactically, this advantage translated into an ability of Prussian horse units to charge exclusively at the gallop, over unprecedented distances of up to eight-hundred yards. Such breakneck speed allowed the Prussian mounted troops to reach opposing infantry and artillery before a second volley could be discharged against them. The trend toward placing primary emphasis on the arme blanche as the

cavalry's weapon, was continued by Frederick; pistols and carbines were therefore relegated to such secondary tasks as reconnaissance and guard duty. To enhance the cavalry's shock effect, Frederick popularized the trend toward outfitting the largest percentage of his troopers as heavy cavalry or cuirassiers, so named due to their distinctive breastplates. It was in this period that the tendency toward specialization of cavalry into light, heavy and dragoon units jelled. Tactically, the cavalry, under Frederick, continued to place a key emphasis on the charge; all other duties being demoted to a distinctly secondary role.²³ As the Prussian warrior king himself put it, laying down at once both the fundamental principle of cavalry warfare as well as its most salient and essential myth: "with the cavalry attack it is not the size of the horse but the impetuosity of the charge that turns the scales"....²⁴

The third and last great cavalry innovator was Napoleon of France. The pre-Revolutionary French cavalry was an exceedingly ineffective branch of service even though its schools of mounted warfare were without peer in Eighteenth Century Europe. The actual worth of French cavalry in combat, however, was negligible, due to exceedingly poor horseflesh, deficient organization and mediocre officers. The key changes introduced in the French cavalry by Napoleon lay mainly in organization (for the first time mounted units were concentrated into brigade and even divisional size for-

mations), unit specialization and the strategic application of mounted troopers in intelligence gathering. At no time during the assorted Napoleonic Wars did French mounted units enjoy the benefits of prime quality mounts or even an adequate supply of horses of any kind. Correspondingly, charges had to be made exclusively at the trot rather than the gallop and the employment of cavalry in battle was held to a minimum, so as to keep as many animals fit as possible. Tactically, Napoleon authored no new model of mounted warfare. Rather, as in other tactical aspects of war, Napoleon was content to borrow wholesale from the earlier French Revolutionary generals. Napoleon simply concentrated much more of everything--cavalry, artillery and infantry--in his battles, relying on his personal brilliance at tactical and strategical management.²⁵

The overriding factor in determining the way that cavalry was utilized in battle was the type of armament it carried. The cardinal weakness of mounted troops, was in fact, its extremely ineffectual armament. Granted that all weapons were exceedingly limited in range and lethality (some infantry commanders, for example, considered the musket little better than a fire stick, useful for making a disquieting noise and slightly more so, as a convenient place to attach a bayonet), cavalry armament was even less effective. Three distinctive types of weapons were employed by mounted troops: firearms (pistols and carbines), lances

and swords. In determining weapon effectiveness, writers of this period fused technical performance with perceptions of how such a device stood in relationship to such aristocratic values as an elan and honor. Universally considered distinctly inferior to the lance of saber, firearms were largely confined to secondary tasks such as scouting and picket duty and thus occupied the lowest rung in the hierarchy.²⁶ Basically, "the pistol can only be considered as a weapon of necessity," according to Count von Bismark of the Prussian cavalry, for "its fire is uncertain, short, and seldom efficacious."²⁷ As for the smoothbore carbine or musketoon, it was "an important weapon for the attack of the skirmishers in extended line," but otherwise not a useful cavalry weapon.²⁸ Only the lowly, jack-of-all-trades dragoons were customarily equipped with the carbine and in turn expected to fight, in a fashion, while dismounted. The true cavalryman, however, had little, if any, affection for this weapon and would have fully concurred with Jomini when he wrote:

I do not know what the carbine is good for; since a body armed with it must halt if they wish to fire with any accuracy, and they are then in a favorable condition for the enemy to attack. There are few marksmen who can with any accuracy fire a musket while on horseback and in rapid motion.²⁹

This opposition to firearms was rooted in cavalry history and experience. Gustavus's revival of the arme blanche was done precisely because of the pronounced

inaccuracy and lack of range of the firearms of his day. The horse pistol was a true monster of a weapon. Virtually a miniature cannon, it weighted up to six pounds (about the same as a modern infantry rifle), had a hellish kick to it when it indeed actually discharged and its effective range was less than fifteen yards. The butt of the horse pistol was therefore usually bulbous in shape and heavily weighted so that it could easily be wielded as a club for the purpose of bashing an adversary's skull. Otherwise, one literally had to have the barrel touching one's opponent in order to insure registering a kill when discharging this gun. Furthermore, attempting to fire a pistol accurately while sitting astride a moving horse at the trot, let alone at the gallop, while simultaneously attempting to stay in formation bordered on the impossible. Trying the same stunt with a musketoon simply lay beyond the province of most mortals. As for the effective range of the smoothbore carbine it was at best no more than seventy-five yards. Since both species of firearms were flintlocks, with an exposed primer for the ignition powder for the primary charge inside the weapon, connected by a touchhole, they could never be employed in adverse weather. Still another shortcoming was the ever present danger that a poorly loaded gun, or one with an inferior grade of powder could easily blow up.³⁰ This lack of firepower of traditionally armed cavalry produced, out of experience, the following maxim of war, as stated by

Lieutenant-Colonel George T. Denison of the Canadian Army, that cavalry "has no fire, and therefore is not suitable for defense, and can only resist an attack by making an anticipatory onset."³¹ Gustavus's technique of interspersing musketeers among his mounted squadrons or Frederick's development of horse artillery were no more than partial solutions to this pressing lack of firepower or mounted units. Thus, horse soldiers were compelled to rely largely on edged weapons, best suited for use in the charge.

An alternative, and far more noble, cavalry weapon was the highly controversial lance, which reappeared in Western Europe in the middle of the Eighteenth Century. Its immediate origin lay with the Asiatic, semi-nomadic tribesmen of the Polish and Russian steppes. Made of hardwood, preferably oak or ash, it featured a sharpened metal tip and frequently as well, metal sheathing for the forward third of its length so as to prevent it from being hacked off by a sword. Such weapons were invariably adorned with the colorful regimental pennant. Precisely due to the lance's superior length and its supposedly greater fear-generation capacity than the saber, more than a few cavalry commanders preferred to send their lancers in first against the enemy line, followed by the heavy cavalry. This greater psychological terror of the lance was a result of the "apprehension of being run through ((which)) has a powerful effect upon a man."³² But only a few zealots, at any given time,

ever believed one could actually fight a cavalry melee with lances against sabers and have the former prevail. The lance was simply too clumsy and too unwieldy for close-in, mounted horse-to-horse fighting.³³

Specifically, "a lance is useless in a melee", according to cavalry expert Captain L.E. Nolan of the British Army, "the moment the lancer pulls up and impulsive power is stopped, the instant the power of the weapon is gone."³⁴ The lance was a wholly offensive weapon according to Bismark, "only applicable to the attack and the charge."³⁵ A major disadvantage of the lance was that it took far more time than the customary two years of basic cavalry instruction to train a trooper in its use. "This is a most efficient weapon when used by a thoroughly trained man," cautioned Bismark, "but in the hands of new levies it is perfectly worthless."³⁶ The lance enjoyed fits and spurts of enthusiasm by rather fickle cavalry leaders. In general, it was not terribly effective; its limitations virtually outweighed, in practical terms, its alleged frightfulness. Yet it possessed a strong visceral appeal to the aristocratically minded professional cavalry officer which transcended such mundane issues as tactical effectiveness.³⁷

The premier cavalry weapon was of course the arme blanche: The saber or sword. In order to master this deceptively simple weapon, some nine months of intensive practice was devoted to learning the innumerable intricacies

of the saber dance or drill. To the popular mind, fancy uniforms, mighty steeds and the flashing glint of cold steel constituted the images of what cavalry should be. To extremely conservative cavalry commanders of the Eighteenth and Nineteenth Centuries, the saber was without peer; the pistol and the carbine second-rate interlopers of limited utility. Such perspective, which at times bordered on the mystical, did in fact make perfectly good sense in an era of exceptionally short range muskets and highly exposed, tightly packed infantry formations; an age in which the cavalry still had a fair chance of succeeding in its role as shock.³⁸

Even in the Eighteenth Century, the saber was held to be more useful for the infliction of psychological rather than physical injury, but the droit and effortless motion of the swordsman on horseback is far more the stuff of legend than of historical reality. Such feats were perfectly possible if one's target were meekly standing still, one's mount not unduly active and one's weapon indeed had an edge on it. Such combination of fortuitous circumstances was all but unheard of in the customary melee or in cavalry versus infantry engagements. The horse provided a very unstable platform; the trooper in battle was in a constant state of motion as were his mount and his adversaries. A goodly portion of the saber dance was directed to training the would-be trooper how to fight in the environment of several

different but interrelated planes of space with geometrically precise patterns of sword play in the course of the very jumbled and exceedingly disorienting cavalry melee. Rarely did a trooper have more than a few opportunities for a head-on clear shot. Rather, the norm were glancing blows which rarely proved fatal or even disabling. The traditional heavy cavalry garb afforded ample protection against the saber, further diminishing its effectiveness. Moreover, it was virtually impossible to maintain a truly sharp edge on a saber while in the field. And it was deemed a breach of the rules of war to employ a grinder to give a sharp edge to a sword.

Despite the clear ineffectiveness of the saber, cavalry men remained, in effect, spiritually wedded to the arme blanche. Even the later introduction of revolvers and breechloading, magazine carbines failed to shake most cavalry leaders in their faith in the deadliness of cold steel. The mystical devotion to the saber long after Samuel Colt had manufactured his first cap and ball revolver had little if anything to do with a carefully reasoned and rationally based evaluation of the comparative merits and demerits of each category of cavalry weapons and the corresponding tactics that would best exploit their particular characteristics. Rather, from the mid-Seventeenth Century on, the cavalry branch of service came to be dominated by a very aristocratic brand of officer, self-

cloistered as it were from the disagreeable changes in the technology of war, beginning with the introduction of the flintlock musket and running through the more deadly by-products of the Industrial Revolution. This overwhelming commitment to tradition regardless of military and social change was the hallmark of the blueblooded European and American cavalry officer.³⁹

The types of cavalry armament described above, engendered the development of specialized mounted formations tailored so as to enhance either a particular weapon or a specific tactical role. What were in effect the equivalent of today's main battle tank were the armored cuirassiers or heavy cavalry. Out of necessity, as well as to enhance their shock effect, the cuirassiers rode the largest and heaviest horses. In the years immediately preceding the Civil War, considerable debate raged among cavalry experts as to the merits and utility of the cuirassiers. The crux of this issue was whether the advances in weaponry in the 1850s, in particular the Minnie bullet rifle, would so shift the balance of tactics in favor of the infantry as to liquidate the shock function of heavy cavalry altogether. This controversy was the leading issue with cavalrymen on both sides of the Atlantic as to the future character of their branch of service. The minority view was propounded by, in the main, light cavalry officers such as Captain

Nolan, who rather caustically dismissed the worth of heavy cavalry when he wrote:

Composed of large men in defensive armor, mounted on heavy, powerful horses are held in hand for a decisive charge on the day of battle, and their horses are so deficient in speed and endurance, being so overweighted that they require light horse to follow up the enemy they had beaten.⁴⁰

The scantiness of actual battlefield experience as to the deadliness of the weapons served to undercut the credibility of the position of the light cavalrymen. Moreover, the considerable hold of tradition on cavalry doctrine further hindered any effort at modernizing mounted warfare. J. Roemer, of the Dutch cavalry, and a passionate proponent of the cuirassiers as the elite of the mounted service, rejected the minority's position as unsound:

...substituting fervid inclination for cool judgment, they have concluded that henceforth there is need but for that one kind of cavalry, and the one in whose welfare they are particularly interested.⁴¹

The dragoons were proper members of the cavalry fraternity, albeit of distinctly lower military status. While trained to fight as skirmishers when dismounted, the signifying characteristic of the dragoon was that he could, in a pinch, deliver a charge, in lieu of heavy cavalry. In addition, the dragoons could be gainfully employed for reconnoitering and camp security duties. Historically, dragoons, named for their early hand armament or dragons, first appeared in the English and French armies in the

Fifteenth Century as mounted infantry. Such units were originally created to provide a more versatile and cheaper form of horse soldier than the mounted knight. By the Nineteenth Century, however, the dragoons had been largely shorn of their tainted infantry traits. Correspondingly, their prowess at dismounted combat declined as mounted duties took increasing importance in the role of the dragoons.⁴²

The dragoons were therefore not mounted infantry in the classical European definition. Technically speaking, mounted rifles or infantry (depending on the kind of small arms carried) were hastily formed outfits customarily created due to a pressing local shortage of full-fledged cavalry units. Mounted infantry, as understood in the first half of the Nineteenth Century, were essentially ground pounders inelegantly perched on whatever horseflesh was readily available. Under no circumstances were jerryrigged outfits intended to mount a real, saber waving cavalry charge. Rather, as pointed out by Colonel J. Lucius Davis, "MOUNTED RIFLES differs from all other cavalry in arms, manoeuver and in habitually dismounting for the combat, their horses chiefly the means of rapid locomotion."⁴³ Such formations were rarely, if ever, equipped with the proper regalia and accouterments of "real" cavalry. Instead, the mounted infantryman's equipage was standard issue for foot soldiers plus harness, saddle and perhaps a short sword.

Spurs, the earmark of a true horse soldier, were seldom if ever bestowed upon the lowly mounted infantryman. Mounted infantry proved especially useful in European colonies where imported horses did not fare as well due to local diseases and because the indigenous horsemen were only rarely organized along lines approximate to classical theory.

Finally, there was the light cavalry. In terms of the peerage of the European mounted services, these sportive and spunky lads were, in effect, the equivalent of the traditionally good-hearted but naughty younger sons of the aristocracy. Awash in splendor, overloaded with color and marked by a surfeit of cheek and temerity, these daring descendants of the cavalier tradition were generally not particularly effective in their designated role of harassment and reconnaissance. This was due to the recurring habit of such units, in peacetime, of bulking up, in terms of horse size, into the range of the heavy cavalry; the British Army was clearly the worst offenders in this regard. The very embodiment of aristocratic frivolity, the light cavalry were markedly different in spirit and appearance than the somber, stout oaks of the heavy cavalry, which were the personification, as it were, of respectability and order. The popularity of light cavalry was subject to recurring shifts of enthusiasm on the part of military leaders due the waning of combat experience following a war and the gradual reassertion of tradition as dominated in

peacetime cavalry planning. Battlefield experience tended clearly to show the ineffectiveness of heavy cavalry and in turn, suggested that the most profitable application of mounted units would lie in scouting, which was of course the suit of the light cavalry. Doctrine, in contrast, overwhelmingly rested on the side of tradition and of the cuirassiers and thus trumpeted the crucial role of cavalry as being the forceful and expert delivery of the charge.

Light cavalry units, however, possessed other than strictly military virtues. For one, they were socially attractive to the upper class, what with their largely patrician officers (it took considerable sums to maintain a stable of fine horses, a retinue of servants, a couple of closets of exquisite uniforms and to bear the heavy burden of monthly mess fees) and their lush finery and splendid pageantry. No better exponents could thus be found of the romantic style of military service in the first half of the Nineteenth Century. The light cavalry also afforded an excellent place to pigeonhole dimwitted sons of distinguished officers and the less mentally agile youth of the aristocracy.

The hussars and chasseurs, the species of light cavalry most frequently encountered in European armies, and functionally interchangeable in nature, were intended to perform the more venturesome duties of cavalry. Thus their forte was the collection of battlefield intelligence, escort and

patrol duty and to a lesser degree, the execution of the shift, dauntless raids on the enemy's flanks and rear. In addition, the light cavalry was also most regularly assigned the grinding and highly unpleasant task of providing local army security as pickets and vedettes. The romanticism of the light cavalry was well described by Mahan, himself supposedly a very practical engineer:

The dashing bold hussar, the epitome of military impudence and recklessness...should present these qualities in a sublimated form on the field. Regardless of fatigue and danger, his imagination should never present to itself an obstacle as insurmountable.

Furthermore, the light cavalryman should always attack his foe, "with a falcon's speed and glance upon his quarry, however it may seek to elude his blow, such be the hussar."⁴⁴

Cavalry was traditionally defined as an intrinsically offensive tool of war, in that it "is always weak on the defensive."⁴⁵ Consequently, according to Major William Gelhorn, "a body of cavalry which waits to receive a charge of cavalry, or is exposed to a force of infantry, or artillery, must either retire, or be destroyed."⁴⁶ Since the "paramount purpose of cavalry is to attack," it was a fundamental maxim of cavalry tactical doctrine, as here stated by Roemer, to "always husband the strength of the horses and never expend more of it than is necessary for the object aimed at."⁴⁷ The charge of horse was not dissimilar to the one shot musket: once a round was discharged or a

cavalry attack launched, in order rapidly to reengage the enemy, a fresh line had to be brought up or new mounted units unleashed at the enemy. The thundering cavalry attack was, in effect, a race against unit disruption and exhaustion, particularly with the heavy cavalry. The longer the distance over which mounted units charged, the greater the fatigue of the animals and, in turn, the lower its combat effectiveness. Similarly, upon impact with the enemy's line or mounted units, the assaulting cavalry was rapidly broken up, with tight formations quickly replaced by small packets of troops engaged in what were basically, private duels with their foes. Thus, in the course of a battle, cavalry units could be realistically expended only a couple of times at best, before becoming effectively hors du combat. Moreover, while a cavalry attack or melee was customarily brief in duration, no more than half an hour at most, mounted units, unlike the infantry, required almost an entire day to reform themselves for further action. The type of terrain upon which a battle was fought controlled, to a very large extent, the deployment and application of cavalry theory; to use mounted units on imperfect ground was to cause the fragile yet mighty power of the horse soldier to be disrupted or even broken. "The horse's power...", according to L.V. Buckholtz, "...is effective only by rapidity, and therefore, motion is the true element of cavalry." Furthermore, "it is only offensive, and depends entirely on the

contours of the ground, it is invincible on level ground, but useless in broken...land."⁴⁸ It was this fundamental sense of risk and imperilment, embodied in the vertiginous nature of the charge itself, a gamble with the fates as it were, that gave cavalry its distinguishing characteristic for being audacious and undaunted in battle, qualities that had particular attraction to the aristocratic military elites of this era.⁴⁹

Cavalry-versus-cavalry engagement were thus, by definition, a higher sphere of battle than either cavalry versus infantry or artillery engagements. Such a clash of opposing cavalry was as much a duel as a battle. It was to a very great extent, a test of one's mettle as a horseman, of a unit's prowess and fortitude. Success, since "the advantage is always with the attacking party" counselled Captain Emric Szabad of the Italian Army, thus depended upon the execution of a near flawless charge.⁵⁰ Or as Roemer put it,

A charge is a rapid and impetuous onset of a body of cavalry upon the forces of a body of cavalry upon the forces of the enemy. To be useful, it is necessary that the horses be at their utmost speed at the moment of collision, and if arrived well aligned and in a compact body, the shock must... overthrow everything that happens to stand in their leap.⁵¹

Courage, impetuosity, verve and honor were tested to the limit in such an engagement. "Cavalry", according to Nolan, "seldom meet each other in a charge executed at speed; the one party generally turns before joining issue

with the enemy, and this often happens when the line is unbroken and no obstacles of any sort intervene."⁵² In regards to the broader tactical aspects of battle, cavalry was deemed in the post-Napoleonic era as a necessary adjunct to true victory.⁵³ Thus while infantry was the most flexible and cost-effective combat arm, the cavalry was, as stated by Halleck, "indispensable for beginning a battle, for completing a victory, and for reaping its full advantage by pursuing and destroying the beaten foe."⁵⁴

The moral superiority and intrinsically greater virtue of cavalry served to grant true nobility and honor to a victorious army. Of course infantry and artillery were acknowledged as capable of achieving great tactical success in the absence of cavalry yet to the early professional military leaders such victories were viewed as tainted by lack of true elan and mettle.⁵⁵ Moreover, the lack of pursuit afforded by mounted troops was seen as robbing the victor of long-term success, a point well stated by Roemer:

Battles have been won with little or no cavalry, but they have always proved sterile and without results. The enemy is repulsed, but not destroyed; and after a few days reappears in the field with undiminished numbers, and ready to renew the contest.⁵⁶ [Thus,] no victory is brilliant which is not followed up by cavalry, and no battle is really destructive which is not determined by them.⁵⁷

If the engineer was the most advanced and scientific type of officer in the Antebellum era, then, in terms of military professionalism, the officer of horse was the most

traditional in character.⁵⁸ Or as Captain Nolan put it so ably:

With the cavalry officer almost everything depends on the clearness of his coup d'oeil, and the felicity with which he sizes the happy moment of action, and when once action is determined upon, the rapidity with which his intentions are carried into effect. There is little time for thought, none for hesitation; and once the movement is commenced, its successful accomplishment is the ([only]) thought allowed to pass through the mind of the commander.⁵⁹

There was a virtual timelessness to many aspects of the leadership style of the cavalry officer. While separated by a hundred years and by many military advances and numerous battles, there was nonetheless a deep kindred spirit between brethren officers of horse, of the early Nineteenth Century and those of the early Twentieth. In contrast, the perceptions and style of officership of engineer or infantry commanders changed markedly. The cavalry remained, to a much greater extent, wedded to their pre-professional, warrior traditions.⁶⁰

The belief in the moral superiority of cavalry had its roots in the uniquely hazardous nature of mounted duty. "Infantry, or artillery in position may passively stand fire;" instructed Roemer, "to strike down his adversary, the horseman must close, and the chances are that he receives a blow in return for the one he deals."⁶¹ Yet, romanticism dominated the conceptualization of the characteristics of mounted warfare. There was clearly a higher social connotation associated with horse soldiers. In other words, horses

and thus cavalry were the badge and the province of true societal elites; infantry, in sharp contrast, were representatives of the plodding, lethargic masses of the peasantry. The bond between rider and mount was esteemed as being a truly spiritual relationship, one connoting not merely higher social standing but also greater moral force. On a practical level, cavalrymen were trained to regard their mounts as merely another piece of equipment and hence, disposable. Yet virtually all cavalrymen would have endorsed the concept, articulated by Buckholtz, that "man and horse are a unity, the brute force submitted to the rational will,....⁶² The very essence of cavalry theory was that it was an art and not reducible to a science. Thus the nature of cavalry, quite unlike other aspects of war and the profession of arms, by definition, could not be translated into mere mechanized routine or subject to scientific experimentation. Expressions by military writers of the efficacy of cavalry were really statements of faith; of a deep, underlying, pre-professional commitment to traditional warrior values.⁶³ Naturally, therefore, since cavalry was defined by its advocates as a way, a path and a tradition, such spiritual growth, warrior prowess and expertise in horsemanship could not be readily taught or learned. Hence, reliance on militia or hastily organized and improvised cavalry units, save for the most elementary tasks was

defined as sheer folly, a point very forcibly stated by Roemer:

When we reflect that it requires threefold more time to teach a man to ride and have a perfect mastery of his horse than to teach a foot soldier his complete drill and that when the horse soldier is thus far instructed he has still a vast deal to learn before his education is complete, it becomes evident that the hurried augmentation of cavalry forces should be scrupulously avoided. A regiment of infantry may be speedily increased without greatly impairing its usefulness in the field, by incorporating a certain number of recruits, most of whom had probably served already in the militia; but a few half-drilled horsemen, a few unbroken horses, will throw a whole line into disorder, and mar every effort of the most able commander.⁶⁴

This crucial rule of cavalry organization was fully supported by Secretary of War Lewis Cass:

Untrained men on untrained horses, form a combination of awkwardness that can ensure nothing but extravagance and disgrace.⁶⁵

Cavalry warfare stood aloof from the post-Napoleonic surge of professionalism and military science. Yet as an elite military force, cavalry served as a living expression of the essential aristocratic, warrior values that ultimately were the bedrock of the new mathematic style of war. In time, however, while the other arms of service prospered from technological advances engendered by the Industrial Revolution, the cavalry withdrew behind the ramparts of tradition. The increasingly evident obsolescence of cavalry, due to enormous increases of firepower, were, in the main, countered by cavalry leaders with re-expressions of the past triumphs of Gustavus, Frederick and Napoleon.

In effect, the cavalry was slowly becoming a prisoner of its myths and customs, refusing to accept the necessity of change. Yet this was not blind military stupidity, until perhaps late in the Nineteenth Century, when cavalry zealots began pushing for the successful revival of the lance in face of the growing adoption of the Maxim machine gun. In the first half of the Nineteenth Century, while the efficacy of horse soldiers was indeed dimming, the recognition of this fact, was by and large still many years away.⁶⁶

Chapter III

THE RE-EMERGENCE OF THE AMERICAN CAVALRY -- FRONTIER SECURITY AND THE PROFESSIONAL ARMY

Part I

Cavalry, in the years prior to John C. Calhoun's tenure as Secretary of War, enjoyed only slight support from either the national political leadership or the Army's commanders. General George Washington, during the Revolutionary War, opposed the development of a large American cavalry arm. The objection, drawn from classical European cavalry theory, was based upon the less-than-ideal terrain of the eastern United States. The absence of broad expanses of flat, open country and the existence of dense woods, hilly terrain and thick swamps barred the widespread use of mounted troops. This basic rule became ingrained in United States tactical doctrine through the early years of the Civil War.¹ Two collateral arguments against political support for mounted forces were commonly raised: first, the significantly greater expenses of maintaining cavalry units, which were of lower tactical utility than infantry; and secondly, the traditional association of horse soldiers with aristocratic power. The first objection was unquestionably the more tan-

gible of the two. Cavalry units were nearly twice as expensive to maintain as infantry formations of equivalent size.

Nonetheless, the pre-War of 1812 Army had occasionally experimented with the use of cavalry. The first post-Revolutionary war cavalry unit was a squadron (about two companies of one hundred and sixty or so officers and men) created by Congress in 1792. This small force was subsequently raised to full regimental strength. The legislative warrant for this unit expired in October, 1796, leaving the Army with only the original two cavalry companies. Indian unrest in the Old Northwest Territory occasioned the creation on July 16, 1798 of six additional companies, merged with the existing force into a single mounted regiment. Due to the needs of frontier security, Congress on March 2, 1799 authorized three regiments of light dragoons, but these units never reached their targeted strength. The first era in the history of the United States Army's cavalry forces ended on March 16, 1802 with Congress's passage of the Jefferson administration's Peace Bill. This legislation abolished all of the Army's cavalry units. Due to increasingly troublesome relations with Great Britain, Congress, on April 12, 1808, legislated a general expansion of the Army, including a new regiment of light dragoons. This unit, however, remained dismounted until the outbreak of hostilities in 1812, due to financial restraints. Four years later, on January 11, 1812, a second light dragoon regiment was cre-

ated for duty against the British. "Having proved almost unserviceable in the several campaigns", according to Secretary of War Lewis Cass, "the dragoons were disbanded at the peace with little or no remonstrance from any quarter."² Thus, in March, 1815, Congress abolished the light dragoon regiments in conjunction with a general reduction of the Army. As before, the objections were tactical, fiscal and political in nature.³ As Secretary of War Lewis Cass put it:

Troops of the latter character ((i.e., cavalry)) have never done anything as yet... the greater portion of the country in the East is unfitted for its use in masses... there only small numbers would be needed....⁴

United States frontier security policy, particularly the role of the Army in the maintenance of order and Indian control underwent significant change during the Antebellum period. Prior to the War of 1812, as with most aspects of United States war policy, the precise mission of the Army as to the issue of frontier security was quite ill-defined. On occasion, as in the 1790's campaign by the Legion (the organizational precursor of the division) against the Indians of the Old Northwest Territory, the Army played the leading role in formulating and executing frontier security policy.⁵ In the main, however, prior to the War of 1812, the Army lacked a coherent mission in regards to the issue of policing the western and southern territories.⁶ After the War of 1812, however, the Army gradually assumed a

virtual monopoly of organized military power on the frontier. Thus, with brief and rare exceptions, principally during the Civil War years, the Army was gradually assigned the exclusive role of providing military protection to frontier settlers. The acceptance of such a responsibility, in contrast to the earlier mixture of militia and regular troops, was assumed reluctantly by the Army's leadership. To them the Army's mission, as a progressive, professional and French-Austrian military organization, was the defense of the nation against an invasion by a European power. Congress and, in the main, the President defined the immediate justification for the maintenance of a military establishment in ensuring the peace of the country's frontiers. Nonetheless, while unenthusiastic about being saddled with the duty of frontier security, the Army's leadership accepted this irksome, fatiguing and even dishonorable work as a kind of unofficial quid pro quo, a bargain as it were, between the Army and its civilian masters: the professionalization of the regular military service in exchange for the use of the Army in frontier security. In other words, the far greater fighting power and organizational effectiveness of the regulars, as compared to the militia, was accepted as essential for ensuring the successful pacification of the Indian, despite the resulting development of a strong professional Army. While this unofficial compact would be beat and challenged severely in the course of the recurring

and quite ferocious debate over the utility and even the legitimacy of the regular Army, it nonetheless survived more-or-less intact through the Civil War.⁷

Prior to the creation of the Civilian Indian Bureau in 1849, as a division of the Interior Department, the Army stood in the problematical role of being at once both the guardian of the Indian and the protector of frontier settlers. Such an ambiguous and potentially contradictory set of responsibilities would seem to have demanded carefully crafted policy guidelines for the frontier officer.⁸ Instead, officers were required to muddle along, protecting settlers, maintaining a semblance of order and all the while guarding the Indian from the designs of unscrupulous whites, particularly those engaged in the nefarious whiskey trade, with no clear guidelines. Or as Inspector General Edmund P. Gaines put it, with less than clarity, in 1821:

No specific instructions can be given to the commandants of frontier posts, to govern their intercourse with the Indians in their vicinity, so as to meet all the exigencies of the service. After receiving such general directions as the case admits they must be left to exercise a sound discretion, being careful to avoid all occasions of collisions and of involving the country in hostilities with them.⁹

Army frontier policy in the immediate post-War of 1812 years, during Jacob Brown's tenure as Commanding General, was essential and reactive in nature. The Army's field command structure was changed in 1821 from a North-South alignment to an East-West division of active combat forces. This

realignment was made in order to improve the Army's ability to carry out the task of frontier policing. In tactical terms, the new policy emphasized the establishment of a line of forts and cantonments along the principal rivers of the Mississippi Valley as far south as present day Arkansas and Louisiana and as far north as Minnesota. Water transport, via flatboat and more-or-less portable water craft served as the principal linkage between individual garrisons and frontier settlements. Essentially, there was the establishment of a firebreak between the white settlers and the western Indians. The problems with this wholly defensive approach to frontier security were numerous and substantial. Minuscule packets of infantrymen scattered over several thousand square miles, were simply too few in number and too widely scattered to be more than locally effective. A closely related problem was the inherent lack of mobility of the regulars. Water transport into the Indian country was usable only so long as the river systems remained navigable. The frontier Army, bereft of mobility and speed of movement on land, was incapable, with rare exceptions such as the 1819-1820 Yellowstone campaign against the Arikara and Sioux Indians, of mounting effective retaliatory strikes against marauders. A still larger failing of this static defensive scheme lay in the very nature of frontier settlement. The idea was to create a barrier between the Indians to the west of the Mississippi River network and the settlers to the

east. Moreover, eastern Indians would be forcibly resettled onto the western plains creating, as it were, a cordon sanitaire to further guard against attacks. In reality, the plan never succeeded. As soon as an Army post was established, traders and then pioneers would aggressively move beyond the effective range of the infantry garrison, fifty miles or so. During the 1830s a far more active and mobile frontier defense policy emerged during the tenure of Alexander Macomb and later, Winfield Scott as Commanding General of the Army. The primary hitch in implementing a more effective policy lay in overcoming Congressional opposition to the enlargement of the Army in general and in the creation of a cavalry force in particular.¹⁰

Notwithstanding the political and military objections to equipping the Army with a mounted component, demands for a cavalry force began to rumble eastward from the West from the 1820s on. One major source of political pressure for the establishment of a mounted unit stemmed from the growing Santa Fe Trail trade. Starting in 1823, the Missouri caravans for the first few years managed to complete their expeditions without any Indian interference. The caravans of 1825 and 1826, however, were both attacked by increasingly belligerent groups of Comanche and Kiowa Indians. In the main, such attacks were little more than nuisances. The merchant caravans, with over a hundred armed men and equipped with even small brass cannon, were quite formidable

as an armed force in their own right.¹¹ And, on the Mexican side of the border, the undermanned and poorly equipped light cavalry or pictadores, nonetheless provided a limited military force to cover the most dangerous leg of the journey.¹²

Many merchants involved in this commerce were either unenthusiastic or even hostile toward the idea of American Army escorts. However, such voices were a minority among the influential St. Louis merchants engaged in the Santa Fe trade. Ironically, the leading (and by far the most powerful) advocate for Army escorts, was Missouri Senator Thomas Hart Benton, the leader of Congressional opposition to the professional army.¹³ The sharpness of one member of the expedition, generated sufficient political pressure to compel the Army to provide an escort. In 1829 such an escort was provided, on an experimental basis, consisting of a detachment of foot soldiers from the Third Infantry Regiment commanded by an experienced Indian fighter, Major Bennett Riley. The fleet Indian tribes of the Southwest plains, such as the Navaho, Kiowa and Comanche, were undaunted by the presence of American troops. The infantry, "walk-a-heaps" to use the derogatory Cheyenne term, proved wholly ineffectual as a deterrent to the frequent hit-and-run raids on the caravan. What was so discouraging to the officers in command of the protective guard was their lack of mobility. As Major Riley put it with a deep sense of frustration:

Think what our feelings must have been to see the [Indians] carry off our cattle and horses, when if we had been mounted, we could have beaten them to pieces, but we were obliged to content ourselves with whipping them from our camp. We did not see any of them killed or wounded but we saw the next day where they had dragged them off. They have said sense ((sic.)) that our fire from the big gun ((i.e., a six-pounder cannon)) killed five or six.¹⁴

A similar sense of resignation at his inability to mount an aggressive pursuit was recalled by Major-General Philip St. George Cooke, then a second lieutenant and later, one of the leading Army cavalry experts in the pre-Civil War years:

It was a humiliating condition to be surrounded by these rasically ((sic.)) Indians, who, by means of their horses, could tantalize us with hopes of battle, and elude our efforts; who would insult us with impunity, much did we regret that we were not mounted too.¹⁵

No further effort was made to provide an Army escort on the Santa Fe Trail until 1833.¹⁶ Field performance clearly demonstrated the lack of tactical effectiveness of relatively immobile foot soldiers against the fleet Indians of the West. The result of such an ignoble performance of arms was even louder calls by Western politicians for enhanced military protection in the form of cavalry units.¹⁷ Leading the growing chorus of support for such units were such traditional opponents of a large standing army and military professionalism as Senator Benton and Secretary of War Cass, of the Jackson administration. Joseph Duncan, a Congressman from Illinois, on March 25, 1828, wrote to Major-General Ed-

mund P. Gaines, arguing for the formation of mounted units composed of "young men of vigor and enterprise, reared in the western country, acquainted with the Indian artifice and their mode of warfare, full of pride and patriotic spirit."¹⁸ Such units, embodying the full spirit of opposition to the regular Army, were claimed not only to be a more formidable threat to the Indians, but also far more responsive to the needs of Western pioneers.

By 1829 reports of difficulties with frontier security as then provided by small packets of relatively ponderous infantry manning static garrisons began to filter back east to an ever more receptive War Department. In April, 1830, Quartermaster-General Thomas S. Jessup, in a formal position paper, signaled the growing enthusiasm for the resurrection of a mounted arm. The problem, however, was the fear that a penny-pinching Congress would simply order one or more existing infantry regiments to be converted into cavalry units. Such a course of action would in no way address the critical lack of numbers of the Regular Army, increasingly burdened by the demands of frontier security. Moreover, infantry units, manned according to the tenets of limited war doctrine, were composed of the dregs and sweepings of society, hardly the kind of personnel required for what would be, according to European practice, an elite formation. Thus, as Jessup pointed out, there did in fact exist a paramount need for regular Army mounted units:

As well you might leave the defense of our maritime frontiers and the protection of our foreign commerce to the artillery stationed on our seaboard. The means of pursuing rapidly and punishing promptly those who oppress whether on the ocean or on the land are indispensable to a complete security, and if ships-of-war are required in one case, a mounted force is equally so in the other. Were we without a navy, pirates might operate with entire impunity, not only on the high seas, but in our very harbors, and within view of our forts. So, without a mounted force on the frontier south of the Missouri, the Indian confident in the capacity of his horses to bear him beyond the reach of pursuit, despises our power, chooses his point of attack, and often commits the outrages to which he is prompted by either a spirit of revenge or love of plunder in the immediate vicinity of our troops, and the impunity of the first act invariably leads to new oppression.¹⁹

The Black Hawk War of 1832 constituted the first significant military problem faced by the Army following the War of 1812. The suppression of the Sac and Fox Indians and their allies, demonstrated the need for a reasonably large and professional military force. The state and territorial militia units, in the main, proved ineffectual as military forces. Troops broke and ran, were far less than diligent in the pursuit of their duties and of course, were far less proficient than the regulars in the performance of tactical operations and in maintaining discipline. Still another major problem was the constant wrangling and less than fully cooperative behavior of many state, territorial and local politicians; General Henry Atkinson, in overall command, labored mightily to employ his militia troops, in conjunction with handfuls of regulars, to bring Black Hawk's

warriors under control.²⁰ The lack of sufficient numbers of regular troops and the resulting dependence upon militia forces, which prolonged hostilities and in turn heightened the cost to civil society, again, demonstrated to professional officers the clear need for an overall increase in Army strength. Thus the Army's leadership, in accordance with limited war doctrine, strongly questioned the wisdom of relying on ineffectual militia forces, the absence of which from the civil economy was costly and exceedingly wasteful.²¹

The Black Hawk War also demonstrated the need for a new Army mounted arm. The regular infantry were simply not fleet enough to pursue their adversaries; the Army was correspondingly dependent upon the availability of militia mounted infantry units to form the chase element in the order of battle. And as an Army officer put it, with a fair degree of frustration:

The war of last summer showed very clearly the impossibility of succeeding against the Indians with infantry alone. March after march was made by the regular troops without coming in contact with the enemy and it was only after many forced marches of the most harassing description that he was finally overtaken and brought to an engagement.²²

Limited funds were scraped together to mount a few companies of regulars as mounted infantry, but this improvised technique was not satisfactory. One of Atkinson's major complaints to Commanding-General Alexander Macomb was exactly this lack of mobility of his regular forces:

As the Regular troops had no means of transportation by land and our supply of provisions and munitions required protection; and feeling unwilling to leave my base of operations I fell back with the regulars to this place to act as circumstances might require; besides none but a mounted force could come up with the Indians, unless they made a stand to contest the point of superiority, which was not expected.²³

Heeding the wishes of his field commanders, President Andrew Jackson openly pushed for the re-establishment of an Army mounted force as a result of the tactical experience of the Black Hawk War. Congress, however, quite unlike Calhoun's days as Secretary of War, was now dominant in the determination of a national war policy. While it was increasingly evident that a cavalry force was needed, there was no consensus whatsoever in Congress as to the form such a unit should take. Congressman William Drayton of South Carolina expressed the recognition of Congress that the issue of cavalry forces for frontier security was indeed a pressing one:

It would have been a vain attempt to pursue the Indians who committed these outrages, for they were all mounted on fleet horses, while the troops of the United States consisted of infantry alone, and they were therefore compelled to endure all the insults and injuries so sure to arise from Indian hostility.²⁴

The 1832 Congressional debate on the formation of a cavalry arm reflected the broader debate over the standing army. The distinctly minority position in the House of Representatives favored establishing formal cavalry units as a full branch of the regular. As articulated by such

Congressmen as Dutee J. Pierce of Rhode Island and interestingly enough, former advocate of volunteer mounted forces, Duncan of Illinois, their position was expressly founded upon professional Army doctrine.²⁵ The majority perspective, to the contrary, was seething with opposition to professional military forces of whatever stripe. The regulars, as pointedly stated by Congressman John Carr of Indiana, were simply incapable of manning and operating any form of mounted force:

There was not... twenty of them ([i.e., regular Army troops]) who could ride a horse fifty yards, and if the Government should furnish them with horses, they knew nothing about taking care of them, and would destroy just as many horses as were put under their management.²⁶

Secondly, aside from the supposed lack of horsemanship of the regular Army, Congressional objections centered upon the very character and physical condition of line troops. Thus as the delegate from the Arkansas Territory, Ambroshe H. Sevier, critically noted:

What were the garrison troops? They consisted generally of the refuse of society, collected in the cities and seaport towns; many of them broken down with years and infirmities; none of them use to rid [(sic.)] nor in anywise fit for the service to be assigned them.²⁷

Finally, as passionately stated by Representative George Grennell of Massachusetts, the volunteer soldier, drawn from the environs of the frontier, would possess virtues and skills which would render him vastly more effective as an Indian fighter:

Frontier volunteer soldiers would "counter wile with wile, and frustrate one stratagem by another, and loss ((sic.)) upon those savage men their own schemes of surprise and blood."

Moreover, the frontiersmen-soldier would be intrinsically loyal; thus, unlike the scurvy lot of the regular army, such noble men could not be corrupted into following the trumpet call of some would-be Napoleon:

There was no danger that these farmers would become... ((tempted to join)) the flying corps... [by] a summer's term of duty in defense of their farms and their firesides.²⁸

On June 10, 1832 Congress authorized the establishment of a battalion of mounted rangers, signaling the victory against the regular Army. The rangers, numbering some six hundred officers and men and organized into six companies, was clearly not an orthodox, professional military outfit. Rather they constituted a unique federalized species of volunteer unit; the men were subject only to a single year of service and were expected to arm and equip themselves.²⁹ The problem was that this unit, expressly unprofessional in character, was certainly not the cavalry force sought by the Army's leadership. This rough-hewed, highly undisciplined assemblage, which saw no action against the Indians, was simply too irregular an outfit to be freely accepted into the professional ranks of the Army. This short-lived experiment, unsuccessful and impractical, succeeded, ironically, in providing the advocates of a regular mounted ser-

vice with the evidence necessary to prevail in Congress. Support for converting the mounted ranger battalion into a proper cavalry unit came from all quarters responsible for developing and implementing war policy in the Antebellum era. Captain Cooke, expressing the verdict of professional officers, curtly rejected the battalion as a military unit, with even less prowess in arms than some of the volunteer and militia units field in the Black Hawk War:

Of this corps (in justice not so formidable to its friends ((in Congress)) as a certain brigade of Illinois volunteers of notorious memory),... none more readily than myself would presume its requiescat in pace.³⁰

Similarly, Secretary of War Cass, reflecting a major shift in the war policy of the Jackson administration argued strongly for the creation of a full-fledged regular cavalry force, using of all things, the very rhetoric of military professionalism that he had so long been opposed:

Besides other important objects, it is desirable to preserve in our military system the elements of cavalry tactics and to keep pace with the improvements in them by other nations. The establishment of a regiment of dragoons would complete the personnel of our army, and would introduce a force which would harmonize with and participate in the esprit du corps so essential to military efficiency, and so easily... created by military principles.³¹

Congress as well moved to support the establishment of a regular Army cavalry service, following the complete failure of its non-professional mounted ranger battalion. The development of the new regiment of dragoons was spearheaded by Congressman Richard M. Johnson. Chairman of the House

Committee on Military Affairs and interestingly, a renowned former Captain of the Kentucky Volunteer Mounted Rifles. Johnson succinctly listed the numerous failings of the battalion of mounted rangers when he wrote:

...the organization of the present battalion of mounted rangers... does appear to the committee to be very defective. It must be evident from the constitution of the corps of rangers, and from the short period of their service, their efficiency will be but little superior to that of the ordinary militia -- every year there must be loss of time in organizing and recruiting the corps and the acquisition of the necessary experience and knowledge, besides it cannot be expected that their equipment and horses will be equal to those furnished by the public.³²

Congress, therefore, on March 2, 1833, passed an "Act for the more perfect defense of the frontiers," converting the battalion of mounted rangers into the (First) Regiment of Dragoons.³³ The creation of the Regiment of Dragoons established a precedent for other pre-Civil War mounted units. Essentially jerry-judged, with no organic ties to any tradition of mounted warfare, these units fell completely outside of table of organization and division of functions established for European cavalry regiments. At this stage in American military affairs, Congress was dominant in the development of national war policy. Consequently, the dragoons were largely a reflection of Congress's limited expertise in the mechanics of cavalry organization. Input from the Army's leadership was indirect and fragmentary. Congressmen Johnson, principally responsible for the

final form of the dragoons, detailed the intended functions and duties of the Army's new horse soldiers:

Regular dragoons, it is believed, are fully competent to discharge all the duties that can be required of mounted rangers.... In celerity of movement they will of course be equal, and as it is the duty of dragoons to serve on horse and foot, they may be trained to the use of the rifle and the sword as occasion may require.³⁴

The dragoons could not, in any formal sense, be regarded as an American importation of European cavalry doctrine. Representative Johnson spoke of the ability of the dragoons to fight both mounted and dismounted. The formal, European definition of "dragoon" bears at best, a slight resemblance to the American form of this type of unit. As one European military dictionary put it, in 1745, dragoons were:

...mounted, who serve sometimes on Foot, and sometimes on Horseback; being always ready upon any thing that requires expedition, as being able to keep pace with the Horse, and do the service of Foot.³⁵

Thus, by definition, dragoons were expected to fight when necessary, on foot. However, unlike infantry, which usually fought in tight disciplined formations, dragoons' customary tactical deployment was in skirmisher order. This loose and even stylized formation was designed to allow the dragoons to do no more than simply harass enemy units with carbine fire. In other words, when dismounted, the European-style dragoons would form a long, loose line, one rank deep, and then, by the specified steps of the Skirmish

drill, proceed to lay down, on the enemy's infantry and artillery, several volleys of harassing fire. Dragoons had gradually mutated into a generally orthodox cavalry formation; consequently, their earlier infantry attributes had either become largely vestigial or were shorn completely. Therefore, they generally fought as still another mounted unit, albeit with the carbine as well as sword and pistol.³⁶

What, therefore, was intended by designating the first post-War of 1812 cavalry as "dragoons"? They were certainly not intended to serve as "light cavalry", as hussars or chausseurs. While the appellation of light cavalry has been commonly applied by later writers to describe the true character of the American dragoons, it is, misleading.³⁷ Being capable of fighting on foot as true light infantry, exploiting the terrain for concealment and cover, the Regiment of Dragoons had considerably more tactical flexibility than the European hussars, which were intended to fight exclusively on horseback and to perform scouting and raiding duties, or the European style dragoon.³⁸ Nor were the Regiment of Dragoons mounted rifles, in that they lacked infantry weapons and were thoroughly trained to fight while on horseback. What lay behind Congress's establishment of a dragoon-like cavalry unit was two-fold: first, of less importance, was the fact that pre-War of 1812 units had borne a similar designation; and secondly and more importantly, was the fact that of all the orthodox types of mounted units, the dra-

goons were those which most approximately fitted the requirements of the frontier. Congressman Johnson had been a highly successful exponent of the Kentucky style of mounted volunteer rifles, which had performed with considerable effectiveness against both Indians and the British.³⁹ This experience was probably most important in determining the rough organizational make-up of the Regiment of Dragoons. The American dragoon regiment was thus a unique admixture of European dragoon, light cavalry, mounted rifle and light infantry principles, plus a liberal dash of the mounted volunteer experience of one highly influential Congressman, the by-product of political expediency and military necessity and not the creation of any conventional manual of cavalry organization.⁴⁰

Part II

The establishment of the Regiment of Dragoons, regardless of its lack of formal ties to the classical European cavalry tradition, was, nonetheless, a telling, if temporary, victory for the advocates of the professional army. In what amounted to direct competition, the volunteer ranger concept had failed as an alternative to the use of mounted regulars in providing frontier security. However, as a much broader consequence of the Black Hawk War, the Army, contrary to its self-defined, professional mission of preparing to meet an invasion by a major European power, was hereafter

saddled with the primary responsibility of providing organized protection against Indian incursions.

The dragoons were a variety of cavalry, more or less, and thus the Army's leadership, in a manner unanticipated by Congress, determined to mold them into the shape of an orthodox mounted unit, at least in regards to tactics and equipment. Structurally, the organization of the dragoons was that of an American infantry regiment. Therefore, the Regiments of Dragoons possessed ten companies instead of troops, with battalions instead of squadrons as the next smaller unit below the regimental level. The regimental commander, for the interim period of unit organization, was the mounted rangers' senior officer, Colonel Henry Dodge. Prior to his service in the United State Army, Dodge had earned a reputation as an efficient volunteer officer in the War of 1812. During the Black Hawk War, Dodge distinguished himself as a colonel in the Michigan Territorial Mounted Militia, by winning the last and very decisive victory over the Sac and Fox Indians. Since Dodge was not a professional Army officer and desired early retirement to enter civil politics, real leadership of the dragoons fell to Lieutenant-Colonel Stephen Watts Kearny, formerly of the Third Infantry. Principally for political reasons, six of the former officers of the mounted rangers were accepted for service with the dragoons. This decision occasioned a fair degree of resentment among regular army officers, who saw it

as "an absolute infringement of their implied rights" and which in turn, reduced the number of new slots on the very slow promotion list.⁴¹ All other officers were either recent West Point graduates, trapped in the limbo of brevet second-lieutenant status awaiting an opening in the career lists, or seconded from existing infantry units.⁴²

The dragoons were at once reconstituted into an elite regiment, not dissimilar from the British Guards. Because of the higher worth of mounted units in the hierarchy of traditional, aristocratic warrior values, despite being at the bottom of the career list in the ranking of the different categories of Army officers, the dragoons offered a higher degree of social status and prestige.⁴³ The romantic character of the dragoons was sprightly presented in the barracks song (or, in military slang, "Jody"), "The Bold Dragoon", of the later Second Regiment of Dragoons (who were tagged the "sons of Bacchus", for their supposed off duty revelries):

Oh: the dragoon bold! he scorns all care as he goes
Rounds with uncapped hair reverends no thought on the Civil war
that sent him away to the border war.⁴⁴

The composition of the rank-and-file of the dragoons was to be very different from any other Army regiment. In accordance with limited war doctrine, the rank-and-file were usually filled out with the refuse and sweepings of society; according to Frederick Marryat, a British traveler:

The privates of the American regular army are not the most creditable soldiers in the world; they are chiefly composed of Irish emigrants; Germans, and deserters from the English regiments in Canada. Americans are very rare; only those who can find nothing else to do, and have to choose between enlistment and starvation, will enlist in the American army.⁴⁵

While such men "were necessarily inferior as material to the... volunteers enlisted... expressly to fight..." recalled General Ulysses S. Grant, the value of such soldiers, to a professional army, one expressly founded on the limited war traditions of the French-Austrian school, was considerably greater than the eagerest of volunteers.⁴⁶ Such men were by nature of little use to civil society, hence the cost to the nation of manning a military establishment was correspondingly lessened. Moreover, such men, particularly the immigrants and British deserters (prized by Army officers for their high level of training and discipline),⁴⁷ lacking any ties to the larger society, were thus dependent on the military for succor. In turn, they could be subject to far more stringent discipline than would have been tolerated by citizen soldiers. In its recruitment policies, the United States Army therefore continued to follow the principles of limited war doctrine, in the Frederickian tradition.

The dragoons, however, were to be organized quite differently from all other Army units. The rank-and-file were intentionally recruited from every state in the union; the manpower was to be distinctly American in character, as

opposed to the usual offscourings of society dredged up by the Army's recruiters, and the unit's spirit, that of highly motivated volunteers. This was not, most assuredly, and abandonment of one of the central tenets of limited war doctrine. This style of recruiting was the norm in most European elite units and the reliance on one's own nationals was increasingly common over the course of the Nineteenth Century as the demands for labor grew with the development of the Industrial Revolution.⁴⁸ The recruitment for the dragoons was enormously facilitated by the fact that the unit was cavalry and by the lure of western adventure. As then Lieutenant Cooke pointed out, a recruiting expedition to Tennessee was a wholly successful undertaking:

Early in the summer of 1833, I was among the hardy sons of West Tennessee seeking to infuse an ardor for service in a wide regiment of cavalry, one destined, we believed, to explore far and wide the western territory, and bear the arms of the Union into the country of many Indian tribes. It was a prospect that did not fail to excite the enterprising and roving disposition of many fine young men, in that military state.⁴⁹

The army's haul from their recruiting efforts was, according to one of those enthusiastic Dragoon recruits, James Hildreth, composed of "young men... which in point of talent, appearance and respectability, perhaps never were... surpassed in the history of military affairs."⁵⁰ The high quality of the recruits and their boisterous spirit occasioned a fair degree of press attention. The Albany Daily

Advertiser, for example, commented quite favorably on the unusually high quality of the new cavalrymen:

...a particular fine body of men being selected with the greatest care--not only as to thews and sinews, and horsemanship, but as to their moral qualifications, and their general adaptation for a service requiring an unusual degree of skill, courage, coolness, and power of endurance.⁵¹

In part, the strategy of presenting the dragoons as an elite unit was no more than a recruiting ploy. Certainly the artful blandishments and sales puffing of the recruiters exploited fully this sense of superiority of the dragoons as an Army unit. According to Hildreth, such advertising methods were necessary because "so superior a band of young men could not have been induced to enlist themselves as common soldiers... where the very fact of a man's being a soldier seems to imply that he is fit for no other employment."⁵² On a deeper level, however, the deliberate recruitment of Americans rather than immigrants was representative of the same spirit of military professionalism as the Army's devotion to the French-Austrian school of war. In effect, the Regiment of Dragoons created an elite, pan-nationalistic unit: a physical representation of the central political tenet of the French-Austrian school of war that a country's army was to stand separate-and-apart from civil society, as a guardian of order and tradition.⁵³

There were substantial problems associated with the establishment of the dragoons as an active Army unit. First

and most critical was the simple fact that the Army had few if any regular officers with cavalry experience. Due to the passage of some eighteen years since the disbandment of the light dragoons, the Army had to start anew with the creation of a cavalry establishment.⁵⁴ As one of the harried officers (some in Congress were pressing for an early termination of the dragoons if they did not take the field with dispatch), Cooke elaborated on the numerous difficulties facing the new unit's commanders:

These persons who may at times have felt symptoms of envy at the fortunes of officers preferred to new regiments, might console themselves if they could but realize the amount of labor, care, and vexations attendant upon the task of enlisting, organizing, disciplining, and instructing a new corps, of producing order from chaos (and much the more cavalry) where the amount of duty, instruction, and responsibility may safely be considered double in comparison with the infantry. And this, without consideration of the extra-ordinary fact, that cavalry tactics were unknown in the army, and with the whole theory and practical detail, were to be studiously acquired in manner invented- by officers, before they could teach others.⁵⁵

Much of what Cooke complained could be traced to the fiscal restraints imposed by Congress. "The most egregious oversight on the part of Congress," according to Hildreth, was "...in not providing proper instruction in horsemanship and dragoon tactics...."⁵⁶ The result of this combination of inadequate funding and planning with Congressional pressure for quick deployment of the regiment was forcefully pointed out by western traveller Charles Fenno Hoffman:

The omission of providing riding masters and a school of practice for both horse and men is a defect that all the care and exertions of the accomplished and energetic officers of the corps can hardly remedy.

The omission of the necessary provisions in the bill reported by Congress and the dispersion of the regiment on the frontier as each company is recruited... forbids an approach to such a state of discipline. The three new companies here ((e.g., Fort Gibson, in what is present day Kansas)) are nearly perfect in the light infantry drill, which enters largely into the maneuver of dragoons, but the exactness of their movement when mounted varies with the skill of each individual horseman.⁵⁷

The clear thrust of Colonel Dodge's exacting training regimen was to create a high quality, European-style cavalry unit. The difficulty was in translating foreign drill manuals into everyday practice for the officers and men of the dragoons. "Everything was new to them," recalled then Lieutenant Philip Kearny, nephew of the regiment's Lieutenant-Colonel Stephen Kearny. "The cavalry regulations for the maneuvers were taken from the French, almost literally translated."⁵⁸ The difficulties of trying to train men, when the officers and non-commissioned officers were virtually ignorant of cavalry tactics and with only three or four copies of an obsolete French manual to guide them, is illustrated by how the intricate saber dance or drill was taught. At night, the officers were drilled as if they were back on the parade field at the Point; the following morning, the sergeants and corporals were put through their paces and, in turn, tried to instruct the men in this very difficult wea-

pon. Moreover, there were no qualified riding masters to oversee the training in horsemanship; only in 1837 was a cavalry school established at Carlisle Barracks, Pennsylvania.⁵⁹

The Regiment of Dragoons, at least for parade drill purposes and in the eyes of western travelers inexperienced in the military arts, was quickly assuming the appearance of a disciplined and polished unit. "They were," as Edmund Flagg wrote, "all Americans, resolute looking fellows enough..." and apparently ready for the rigors of frontier patrol duty.⁶⁰ What caught the eye of most observers was the supposedly higher level of individual motivation and the "ethnically pure" character of the men. Charles Joseph Latrode commenting favorably on the new regiment, stated that "the recruits for the service of the newly-raised regiment of Dragoons organizing for the future service of the frontier in place of the Rangers... were distinguished from the rag-tag-and-bob-tail herd drafted in to the ranks of the regular army by being for the most part, (["all Americans"]) athletic young men of decent character and breeding."⁶¹ In reality, the unit was seething with discontent and plagued by such high rates of desertion (as many as one hundred by October, 1833) as to seriously undermine the process of unit formation. The chief cause of this deep dissatisfaction among the men was the unexpected reality of the unpleasant conditions of frontier service. Upon the unit's initial

posting to Jefferson Barracks, St. Louis, the first four companies that had been organized were required to act as common laborers in erecting barracks and stables for the regiment. Such mundane labors contrasted quite unfavorable with the recruiting officer's hyperbole regarding the supposed ease of service in an elite cavalry regiment.⁶²

In 1834 the First Dragoons, for the first and only time prior to the Civil War, went into the field at something approaching full strength. Overall command of the expedition was vested in Brigadier-General Henry Leavenworth, then in charge of Fort Gibson and the Western Division of the United States Army.⁶³ The purpose of this campaign was to present a show of force so as to overawe the Plains Indians, particularly the recalcitrant Pawnee, Kiowa and Comanche, into respecting the rights and interests of Santa Fe Trail merchants, Arkansas Territory settlers and recently relocated Eastern Indians. A second and perhaps crucial purpose of the expedition was to prepare the way for the forced resettlement of the Southeast Indians onto the Plains. The original May date for launching the expedition was canceled due to difficulties in completing the formation and initial training of the regiment. Only in early June was the regiment's second battalion fully formed; the last three companies arrived only three days before the departure of the expedition. On June 15, 1834, approximately five hundred officers, men, Indian scouts and assorted civilians embarked

on this ill-fated campaign. The primary failing was a dangerous combination of ignorance and bravado. Virtually to a man, the Dragoons were wholly incognizant of the dangers associated with travel on the Great Plains, particularly by such a relatively large force. The campaign set out in June, during a year of exceptionally high temperatures, when potable water and forage were at their scarcest. Furthermore, the formation of the dragoons as a combat unit was nowhere complete. Not only was over half of the regiment either in transit to Fort Gibson or still in training, there had been no time for the assemblage to coalesce into an effective military force. Consequently, the poor performance of the regiment could be attributed to lack of organization and planning; or as Hildreth commented, "with but about six months training, and that under officers who know less of the maneuvers of a cavalry corps, than some of the dragoons themselves."⁶⁴ Accompanying this expedition was noted artist and western chronicler George Catlin, then engaged in gathering information for his major work on North American Indian tribes. Catlin succinctly diagnosed the causes of the expedition's problems when he wrote:

In the first place, from the great difficulty of organizing and equipping, these troops are starting too late in the season for their summer's campaign by two months. The journey which they will have to perform is a very long one, and although the first part of it will be picturesque and pleasing, the after part of it will be tiresome and fatiguing in the extreme. As they advance into the West, the grass (and consequently

the game) will be gradually diminishing, and water in many parts of the country will not be found.⁶⁵

The expedition ended in disaster. Catlin authored a haunting assessment of the progress of the campaign in mid-course: "of the 450 [actually, five hundred plus] fine fellows who started from this place [Fort Gibson] four months since, about one third have already died, and I believe many more... will yet fall victim to the deadly diseases contracted in that fatal country."⁶⁶ Some sense of the sever hardships and privations which befell the dragoons is afforded by the journal of First-Lieutenant Thomas B. Wheelock:

August 8. Marched at eight o'clock. Halted at three o'clock; distance eighteen miles; course east by south. Exceedingly warm day. Stubborn thickets. Crossed and encamped in the bottom of Little River; shallow stream, narrow bed, miry shores. No water from morning till the halt for the night. Passed many creeks the beds of which were entirely dry. Our Horses looked up and down their parched surfaces and the men gazed in vain at the willows ahead, which proved only to mark where water had been. The timber is larger here.... No longer any trace of the buffalo. Sick report numbers thirty men and three officers.⁶⁷

The result of this folly was to put the regiment out of action for some four months as an effective military unit with the loss of over one hundred troopers and officers, including General Leavenworth, as well as a third of its mounts. Nonetheless, there were very important and valuable gains recorded by the Army's first major campaign on the Great Plains. First, it served to establish the basis for subsequent intercourse between the United States government

and the assorted Indian tribes of the Great Plains. Secondly, it served as vast classroom in which the Army was tutored, although quite harshly, in the skills essential to the effective operation of military forces on the Great Plains.⁶⁸ Such was the speed of the Army in mastering these lessons, a point too easily obscured by the misfortunes of the Leavenworth-Dodge expedition, that within a year's time, the dragoons could easily mount reconnaissance and diplomatic forays of well over a thousand miles without incident. For example, on June 7, 1835, Lieutenant-Colonel Kearney began a highly successful expedition into the Iowa Territory, a journey of some one thousand miles, with B, H and I Companies. This force returned to base on August 19, 1835, without the loss of a single man or horse; or as the anonymous chronicler of this expedition put it, in words wholly different than those penned for the Leavenworth-Dodge mission: "Come 20 miles to the Fort ((Gibson)). Arrived there about 2 P.M. having been absent almost 3 months. Sickness and disease has been a stranger to the camp and all have emerged in good spirits... upon the whole I convey we have had a pleasant campaign."⁶⁹

Part III

The Second Seminole War, 1835-1843, was perhaps the Army's "dirtiest" war of the Nineteenth Century. It substantially influenced the development of military profes-

sionalism in the officer corps. Indirectly, as well, it led to the creation of the Antebellum Army's second cavalry regiment. It was a war of shadows, of small patrols struggling through the inhospitable mire of the Florida Everglades hunting and in turn being hunted by the Seminoles, Creeks and their black allies, of ambushes and reprisals. It was as well a second major test of the professional American Army in the post-War of 1812 era. The severe trials occasioned by this war stemmed as much from the numerous difficulties of jungle warfare, as from the confusion and disarray at the highest levels of the nation's war policy decision process. Ceaseless political pressure from Washington on the Army for a swift resolution of hostilities in conjunction with the failure of Congress to legislate adequate military resources to accomplish this task, served to derail any coherent and effective tactical solutions. The reasons for the Army's eventual success were principally ones of exhaustion and attrition of their enemies coupled with the painfully slow development of effective jungle war techniques. Seven senior officers and seven different tactical schemes were hastily devised and then just as hastily aborted due to the ever-louder chorus for an end to hostilities by Congress. The thoroughly European American Army was unsuited by organization, equipment and tactical doctrine, for the challenges posed by the unorthodox guerilla-style warfare. It took several years to devise

effective combined Army-Navy operations; lack of cooperation between these two services was as much a lack of tactical theory and practice in joint small-unit operations as it was one of politics. The lessons learned by the Army's leadership were not, however, those of flexibility and innovation in military doctrine. Instead, as in the earlier Black Hawk War, this protracted campaign served as a vindication of the essential correctness of the Army's post-War of 1812 decision to realign itself on the French-Austrian school of war. Thus, as before, effective military action had been crippled, vast resources of men and money squandered and lives lost due to the interference and lack of fiscal support of politicians in both the executive and legislative branches. There was as well the usual lack of cooperation of state, territorial and local officials; the customary lack of militia effectiveness as combat troops; and the persistent lack of adequate numbers of men, equipment and funds.⁷⁰

For eight long years, under the most oppressive and difficult of conditions, the Army labored in its thankless and ignoble job of suppressing the Seminole and Creek Indians. The terrain of the Florida Everglades presented exceptionally inhospitable country for the operation of conventional troops. The men were plagued by the heat, the swamps, disease, alligators and the hard biting "tiny sandflies popularly called 'noseeums'."⁷¹ The difficulties of campaigning in the Everglades were catalogued with a good

deal of anguish by Assistant Adjutant-General J. A. Chambers:

The troops have endured every hardship and privation, they had ((been)) exposed to the drenching rains, noxious vapors, and the scorching sun of an almost torrid climate; they had waded rivers, made long marches over burning sands, traversed almost impassable swamps, and sought the enemy in fastness such, as American soldiers had seldom penetrated before, and with a perseverance and energy, and a courage, worthy of the best era of the republic.⁷²

The Army's travails in the Florida mires and glades presented yet another example of an orthodox European-style army struggling to overcome an adversary that refused to fight by the standards of civilized warfare and on terrain that was inhospitable to standard tactics. From the Scottish Borderlands and the Balkans of the 1740s which had spawned the concept of light infantry, to the dense North American woodlands and General Braddock's massacre during the Seven Years War, to Wellington and the Spanish Peninsula, where modern guerilla warfare was born, to the burning sands of French Algeria in the 1830s and 1840s and the Great Plains and Florida Everglades of the United States, European-style armies had labored mightily and, on occasion, with a fair degree of ingenuity, to wage unconventional warfare. In the main, such efforts were rarely reflected in the manuals or in the training regimens of officer cadets. The only major influence on orthodox tactics lay in the use of light infantry as skirmishers to cover the advance of columns of conventional infantry.

Guerilla-warfare, in order to be effectively prosecuted required highly unorthodox tactics, the willingness of senior officers to trust the judgments of junior officers in the field and an effective, coordinated strategy with the diplomats and civil officials. The Army eventually solved the first two problems of tactics and command leadership. Out of the jumble of strategies tried in the Florida swamps, what emerged was basically the same strategy used seventy years later by the British in the Boer War. The swamps were sub-divided into a series of three-square-mile districts. In the heart of each district was a blockhouse and a lieutenant, captain or ensign with forty soldiers, Marines or volunteers. The emphasis was on aggressive patrolling, thereby severely curtailing the mobility of the Indians. In turn, larger detachments traversed the glades by water and on foot, progressively tightening the Army's grip on the Florida mires, in effect, squeezing the swamps dry of its Indian population. Indian Bureau agents, whose ineptitude and belligerence had been one of the primary causes of the outbreak of hostilities, eventually proved somewhat useful in securing the surrender of some of the Indians. Eventually, the Army more or less succeeded in pacifying the Everglades and bringing about the deportation of much, if not all, of the Indian population. These painful innovations in waging unconventional warfare, however, had no measurable impact at all on formal Army doctrine. The harsh

tactical lessons learned in the Everglades remained behind when the bulk of the Army was withdrawn to deal with the problem of frontier security on the Great Plains. It was the national political establishment which had failed to support the military effort effectively, from which the Army again learned the painful lesson that in a crisis, it would ultimately have to rely on itself to defend the country.⁷³

The professional officer corp's assessment of the causes of this war appear, on first reading startling: the two primary factors in bringing about open hostilities they argued, were white greed for land and the conflict between two quite different cultures. In fact, these factors were, from the perspective of most professional officers, the usual causes of Indian-white hostilities in this period. The Seminoles had therefore been pushed into war by the unscrupulous acts of some white settlers and the fraudulent and corrupting practices of the whiskey dealers, a problem found on both the Southern and Western frontiers:⁷⁴

...the passions of a people ((i.e., the Seminoles)), which had been smothered for fifteen years... were let loose, and the savage massacres which had appalled the stoutest breast, gave undisputed evidence of the character of the conquest. Florida, from this time forward, was a scene of devastation, murder, sorrow, and distress.⁷⁵

The patrician members of the officer corps, charged with the conflicting duties of looking after the welfare of the Indian and in turn protecting the frontier settlers, whose greed all too often brought on hostilities, found the

process of Indian control quite distasteful. Yet they dutifully set about their dirty work when the shooting started, the professional ethos of the officer corps placing it above the petty machinations and intrigues of the civil politicians. The Army had little affection for the savagery of their adversaries yet the members of the officer corps understood that it was a function of the Indians' very different culture, "their rude and uncultured code of laws."⁷⁶ The greatest complaint of the Army's leadership, however, was the usual lack of adequate manpower to prosecute effectively and speedily the wars foisted on them by the national political establishment, or as Potter put it:

If the President was determined to gratify the craving appetites of a few avaricious speculators, it was his duty to protect the respectable citizens of Florida against any injury ((that)) might result from his measure, he should have thrown such a force into the territory as to prevent the possibility of resistance....⁷⁷

At the onset of hostilities, the Army's forces in Florida numbered some five hundred men, mostly artillery troops manning the peninsula's fortresses. Their opponents, whose growing inclination to resort to war had been known for months, totaled some fifteen hundred Seminoles, Creeks and black allies. A considerable effort was thus spent by the Army and the Secretary of War in scraping up enough troops to prosecute the war.⁷⁸ Lacking resources and under intensive political pressure to produce a quick victory, the Army tackled its formidable problem with grim determination

and, in time, considerable skill. Brevet Captain John T. Sprague, chronicler of this war, expressed the bitter feeling of most Army officers toward their civil political masters when he wrote: "Blood is spilt, millions are squandered, the country ravaged, when the means upon which the only hope was based, to avert the calamity, one put in requisition ((i.e., creating an Indian reservation in Florida)), and the army, amid vindictive abuse and unreserved condemnation, accomplished the desired end."⁷⁹ As usual, the militia proved largely ineffectual; in the best tradition of limited war doctrine, Sprague stated the Army's severe criticism of citizen soldiers.⁸⁰

If mustered into service, each man inevitably leaves his home unprotected while absent, solicitous for the safety of others, his own dwelling may be fired, and his family murdered; his farm from which he draws his daily food, becomes a barren waste, and the habits of industry, which have grown with his... ((efforts)), become enervated by pernicious example.⁸¹

At about the same time as the beginning of the Seminole War, the Second Dragoons were created by Congress as the Antebellum Army's second cavalry unit. The exact motivation behind the establishment of a second dragoons regiment is quite murky. The Second Dragoons appear to have been part of the temporary expansion of the Army in 1836 due to the outbreak of hostilities in Florida.⁸² Consequently, the Second Dragoons have been frequently identified as having been authorized specifically for duty in the Seminole War.⁸³ This portion is supported by the fact that in 1843, after

cessation of hostilities in Florida, Congress moved first to disband and then to retain them as a dismounted rifle regiment. This decision was in turn reversed in 1844, when Congress authorized the remounting of the Second Dragoons due to strong Western political pressure for increased Army protection on the Great Plains.⁸⁴ The problem with this neat and quite linear progression of events in the complicated gestation period of the Second Dragoons is in the fact that the Everglades were the worst possible terrain in which to deploy cavalry. The morassy terrain of the Florida glades was completely impassable to mounted troops. Consequently, the Second Dragoons, during this campaign, were compelled to slog through the muck of the Everglades as lowly infantry along with the rest of the Army and Marines. Moreover, there is the interesting fact that the first posting of the Second Dragoons was not to Florida but rather to Jefferson Barracks, St. Louis, apparently for Western frontier security duty. It is thus probable that the Second Dragoons were created by Congress pursuant to increasingly vocal Western political demands for adequate military protection; in turn, the establishment of this regiment would have allowed for reassignment of an infantry regiment for Florida duty. However, the massive manpower requirements created by the Second Seminole War forced the Army high command to gut the Western Department for troops of all kind, including the Second Dragoons. The First Dragoons, save for perhaps a few

companies in the first months of hostilities, labored alone as the Army's only western cavalry unit until the 1840s.⁸⁵

A third unit of cavalry, the Regiment of Mounted Rifles, was established by Congress in 1846, professedly to man a series of new outposts along the now heavily-travelled Oregon Trail.⁸⁶ The origins of the Mounted Rifles if anything, are more shrouded in the obscurities of Congressional legislative history than the Second Dragoons. Certainly, this unit was one of congress's most whimsical and peculiar creations in the field of war policy. The primary armament was designated as the 1841-pattern rifle and, of all things, very oversized Bowie knives, which many officers replaced as soon as possible with a saber. The 1841-pattern rifles were simply too unwieldy and possessed too low a rate of fire to be effective for mounted frontier service. Moreover, there was simply no way such weapons could be used by a soldier when on horseback. Further complicating matters was the fact that a different table of organization than that of the Dragoons was established for the Mounted Rifles; thus this new regiment had two extra companies and over two hundred more men and officers. Even the facings on the uniforms were different: yellow (or orange after 1851) for dragoons, green for mounted rifles, as in British Army practice. The motive of Congress in creating such a unit instead of a third regiment of dragoons, which would have ensured the rationalization of Army units into a few spe-

cific types is obscure. The primary motivations appear to have been those of foreign policy and protection of the "true" Anglo-Saxon character of the American people and not the actual defense of pioneers on the Oregon Trail. In other words, nativism plus the then white-hot political issue of the Oregon boundary were really the principal influences upon Congress in creating the mounted rifles. The Congressional debates express concern for the racial purity of American society, the untoward threat of immigrants and the need to prove the superiority of youthful American society in the tussle over the Oregon Territory with decadent old Great Britain.⁸⁷ Of course such concerns had little rational connection with issues of national war policy; the mounted rifles was the least desirable form of cavalry in terms of European mounted warfare doctrine and the Army's senior leadership. Nonetheless, Congress did establish the mounted rifles, reasserting, if in a rather roundabout manner, its traditional opposition to military professionalism. The style of the mounted rifles--Bowie knives and long guns--conjure up images of such pioneer legends as Daniel Boone and Davy Crockett rather than regular Army soldiers. As an added benefit (if of small import), was the Army's growing surplus of expensive new percussion cap rifles (in the main, loathed by line infantry officers for their very slow rate of fire) could finally be

put to productive use rather than gathering dust in federal arsenals.⁸⁸

Part IV

The American West from 1812 to 1861 provided few opportunities for the youthful cavalry service to employ formal European mounted-warfare principles. The central obstacle to the effective mastery of cavalry tactics lay in the very wide dispersal of the Army on the Great Plains. At no time until 1861, did more than six companies of any mounted regiment ever serve together, after the initial assignment to the West. The ten companies of each mounted unit were scattered to isolated waddles vain-gloriously titled forts. Moreover, each company was further subdivided into still smaller detachments to man assorted cantonments and posts. The positioning of such detachments was chiefly a political and not a military decision; Army bases in this period were usually situated near settlements or astride commercial and pioneer trails. In 1835 the First Dragoons, according to the Annual Report of the Secretary of War, listed three companies at Des Moines, four at Fort Leavenworth and three at Fort Gibson (Arkansas). In 1848, the First Dragoons listed three companies within the New Mexico Territory and one each at Fort Leavenworth, at Fort Scott (in present day Oklahoma) and at Fort Snelling (upper Minnesota). For the same year, the Dragoons had deployed six companies in the

New Mexico territory, two in Texas and two in transit to California.⁸⁹ To put these numbers in perspective and to facilitate an understanding of how hard-pressed the Antebellum Army was in fulfilling its frontier defense obligations, consider the following (and quite typical) statement of the Army's western deployment in 1854;

A. The Department of the West, including the country between the Mississippi River and the Rocky Mountains, save for the Departments of Texas and New Mexico, with a total of 2,400 square miles of territory to be patrolled, occupied by an estimated 180,000 Indians and policed by a total of 1,855 officers and men;

B. The Department of Texas, consisting of that state and adjacent land for a total of some 2,000 square miles, with 30,000 Indians watched over by 2,886 officers and men;

C. The Department of New Mexico, with 1,500 square miles, 50,000 Indians and 1,654 officers and men.

D. The Department of the Pacific, embracing California and the Territories of Oregon, Washington, Utah and part of New Mexico, 3,100 square miles to be patrolled, 134,000 Indians and 1,365 officers and men for the job.⁹⁰

Fundamentally, the professional Army viewed the task of frontier security as not constituting a military problem. Irregular or partisan warfare, according to the prevailing military-legal doctrine, was barbaric and intrinsically dishonorable. John P. Curry, an author of field manuals for the militia, penned a precise statement, in 1861, of the formal military animus toward guerilla warfare:

This, the most barbarous and inhuman mode of warfare known, and by no means recognizable among honorable comba-

tants, is generally resorted to by irregular troops for the purpose of harassing and annoying an invading army entering an enemy's territory. They ((e.g., guerrillas)) usually murder for pay and plunder, and are not prompted by any spirit of patriotism or honor. Guerrilla warfare consists, mainly in making night attacks, way laying strangers, the free use of poison... firing upon victims from ambush... and in robbery, pillage and assassination. If a guerilla is caught, no clemency whatever should be extended to him.⁹¹

This pronounced opposition to partisan warfare by members of the trans-Atlantic military community, was part of the legacy of the limited war tradition and the profound intellectual reaction against the unrestrained violence and the brigandage of the Thirty Years War. War was thus supposed to be fought according to universal rules of engagement, by clearly identified combatants for limited objects and restrained by reason and honor.⁹² The problem, therefore, for the Professional American Army, was how to wage an unorthodox war without sacrificing its hard-won commitment to a European style of war and in turn, without sullyng its honor, "that active and heaven-born principle,... that purifying an ennobling sentiment which pervades every word and action, while it regulates and controls the passions...".⁹³ The Army, it should be recalled, was bound as well by its seconds obligation of protecting the samesaid Indians from the unlawful conduct of some whites. The problem was never formally tackled by the Army's leader of how to blend these disparate duties into a coherent policy: tactical problems of frontier security and legal questions involved in the

management of Indian affairs were largely left to the imagination and discretion of field officers.

That is not to say that the European military traditions and practices on which the professional Army was modeled had no utility in aiding officers in tackling the complex and thorny issues involved in frontier security duty. Surprisingly, it was again the tactics of the French Army which proved invaluable in solving the question of how to control the Indians. A frequently used term to describe the Indians, was that they were "Arabs" or "mussulmen". Captain John Pope, for example in describing the Indians of the Southwest in 1853, stated that their habits (including in battle) were similar to the "wild Arabs" of the desert.⁹⁴ Similarly, Army Surgeon R. Gilson, described the Comanches as "those arabs of the western prairies."⁹⁵ The origin of this practice of defining the Army's problem of Indian control as analogous to management of the Arabs was derived directly from recent French Army experience in North Africa.⁹⁶ In the 1830s and 1840s, French armies waged a protracted and highly fluid war with the Berber tribes. The initial and wholly unsuccessful tactical scheme was the "Great Wall", entailing reliance upon numerous small, static garrisons to seal off the Berber threat from populated areas. Essentially, therefore, in terms of American frontier military policy, the same type of tactics which had proved equally ineffective on the Great Plains and in the

Mississippi Valley in the immediate post-War of 1812 period. In 1840 Marshal Thomas-Robert Bugeaud was dispatched to Algeria to take command of the flagging war effort and to implement his quite original and even daring tactical solution to the Arab's guerilla tactics. Within his command were three American Cavalry lieutenants sent to France by Secretary of War Joel Poinsett with the objective of returning with the most up-to-date training and manuals in mounted warfare so as to ensure that the dragoons were truly an effective cavalry unit. Bugeaud replaced the numerous small garrisons with large, strategically positioned concentrations of troops. The new tactical emphasis was on celerity and mobility; heavy supply wagons were replaced by mules and the heavy artillery left at base. Small detachments of cavalry and infantry were sent out as scouts to shadow the Arabs and pinpoint their location. Aggressive patrolling and rapid and effective retaliatory strikes by cavalry and infantry, exploiting their new swiftness of action to the fullest, accomplished in four years what France had failed to do in the previous twenty; or as Bugeaud himself put it:

I have made myself as much an Arab as you are. More than you perhaps for I can remain on campaign longer without returning for supplies. Your vast solitudes, your steepest mountains, your deepest ravines cannot frighten me or stop me for a moment.... I am mobile as you are. There is not a single corner of your territory which I cannot reach. Like a river of fire I will scourge it in all directions, today to the south, tomorrow to the east, the day after to the west, then to the north.⁹⁷

Arab and Indian societies were highly dissimilar, the former being considerably more organized. Yet the styles of warfare of these two peoples bore many similarities: fleet, highly mobile adversaries, specializing in hit-and-run tactics, and exploiting the harsh, inhospitable terrain in which they lived to their advantage. Thus, there was a common bond of experience, based on the solution of broadly similar tactical problems, between American and French officers. Lieutenant Philip Kearny, who distinguished himself in the Algeria campaign of 1841-1842, returned to the dragoons imbued with the latest advances in waging both orthodox and unorthodox warfare. For Kearny, "the French theory of tactics... ((was)) the most perfect" of his day, a statement which would have been readily agreed to by most professional officers on both sides of the Atlantic. While the French tactics in Algeria, unlike their formal principles of mounted warfare, were never written down in any formal military treatise, they nonetheless influenced American counter-Indian tactics in the Antebellum era. Mule trains were used for resupply in rough country, infantry were employed to screen cavalry and supply trains from ambush in mountainous terrain and small herds of sheep and cattle were driven behind the troops to provision large field operations.⁹⁸ Thus, the definition of frontier security problems in the context of European military practice, particularly that of the Army's mentor, France, further

strengthened the ties of the officer corps to the professional concept of war.

Both the French and the American armies arrived, independently, at the conclusion that cavalry was fundamental to the effective control of hostiles, Arab or Indian. Thus without cavalry, according to Colonel George Croghan, "our interior commercial can ((not)) be protected against the tartars of the prairies by Infantry stationed at posts, without the assistance of a mounted force."⁹⁹ Again, as pointed out by Captain Cooke: "in no country of Europe, nor in Asia, can horses be so numerous and so cheaply supported as in the United States; and our plains and prairies plainly indicate that cavalry is the most suitable military force."¹⁰⁰ An alternative tactical solution to the problem of suppressing the raids of the Plains Indians would have been by the use of a largely mounted combat force, supported by limited numbers of infantrymen to man garrisons and for use in hilly terrain. Such tactics were used in the Nineteenth Century by Imperial Russia to secure control over their Central Asia territory. Such a radical departure from orthodox military tactics never developed due to two insurmountable obstacles. First of all, Congress had little enthusiasm for expanding the strength of the Army, resulting in a continual shortage of troops that was only gradually solved over the course of the Antebellum period. The second key obstacle lay in the intrinsic military professionalism

of the Army itself. The fundamental tactical precept of formal European-style warfare was that the infantry was the king of battle; cavalry was no more than a useful adjunct to the foot-soldiers. The Army therefore went about the difficult task of Indian control by bending and twisting their European oriented war fighting system to the requirements of the frontier.

Practically speaking, the basic operational character of the Army's means of suppressing Indian incursions was wholly military in character. It was not, however, defined as being military in nature by the officers waging these campaigns. On the other hand, it was clearly not the police-like campaign employed across the border in Canada. The Royal Canadian Mounted Police tackled the question of Indian control in the fashion of a conventional police problem of maintaining law and order. This approach was wholly reactive in nature: in the main, individual violators of Canadian law would be apprehended and tried for their offenses. Only infrequently did the R.C.M.P. resort to the use of large scale detachments of police and soldiers to control their Indian populations; for example, between 1886 and 1895, there were 943 military engagements in the American West compared with only six or seven in the Canadian Northwest Territory. Of enormous importance in aiding the efforts of the R.C.M.P. was the fact that the central Canadian government worked vigorously to restrain western

settlement until the Indians had been pacified. Consequently, the R.C.M.P. was not nearly as burdened as was the American Army with the task of safeguarding large numbers of western settlers from Indian attack. While seemingly more orderly and less combative, the Canadian police model did not, in fact, prove successful. It was rather the far more massive and belligerent campaigns of the American Army to the south that broke the resistance of the Great Plains Indians on both sides of the border.¹⁰¹

A second, very different strategy of Indian control was that of the Texas Rangers. Basically, in dealing with the Comanche and other tribes, their technique was to out-Indian-the-Indian, including, on occasion, the ferocity of combat. The Rangers attempted to drive their opponents to ground and then decisively engage them, exploiting the enormous firepower advantage of their Colt cap-and-ball revolvers to the fullest (the Rangers had these weapons in action some twelve years prior to official Army service adoption); an average company of one hundred and twenty men, armed with two revolvers each, could discharge a then mind-boggling total of fourteen hundred and twenty rounds without reloading compared to the earlier total of one hundred and twenty with single-shot weapons. When the Cossack-like Rangers were infused with military discipline, as in Rip Ford's famed 1858-1859 campaign on the Canadian River against the Comanches, the results could be devastating against the

Indians.¹⁰² The United States Army, inherently a military force and governed in its actions by its professional code of honor, chose instead to corral the Indians, who were at once their adversaries and in effect, their wards, onto secure reservations.

The concept of the American Indian held by Army officers was marked by a profound sense of ambiguity. Many officers, according to the popular stereotype, did find the Indians to be savages--cruel, selfish, treacherous, disgusting in their personal and societal habits and inveterate beggars,¹⁰³ As forcibly articulated by Lieutenant William Averall, there was something quite demeaning in the nation's practice of squandering its West Point graduates on the lowly and occasionally dishonorable duty of Indian control:

With all the elements of science and rudiments of art with which we had been loaded during the four years ((at West Point)), we were... now to be used simply and sadly to supervise the learning and disciplining of soldiers and to train them in the art of killing Indians.¹⁰⁴

As a rule, the greater the ferocity and the larger the variance from accepted practices of American culture, the greater the dislike of such Indians by members of the officer corps. One Army wife, Theresa Viele, writing for her husband, a captain, described the Comanche in the harshest of terms: "there could not be a blacker record of infamy and rapaciousness. The Comanche possesses no vestige of the noble traits of the redmen of the northwest." Rather, "he is a bloody, brutal licentious, and an innate thief."¹⁰⁵

Such perceptions, however, reflected only part of the complex set of viewpoints held by members of the officer corps concerning the Indian, who as Surgeon Gilsan pointed out, "range from the primitive savage to the half-civilized...."¹⁰⁶ The perceptions of individual officers thus varied with their own personal experiences and in turn, due to the particular tribe(s) with which they had contact. Thus, Major-General George A. McCall, as a youthful junior officer serving in Florida in the late 1820s, penned a quite perceptive assessment of the Seminole Indian and his relationship to white society:

The difference in the development of the intellectual facilities as well as moral, had they been by nature carved in the two races, which I am satisfied is not the case... ((lies in)) education or in other words, the habitual experience of the mental moral faculties in the different pursuits of savage and civilized life, would, in the course of ages, have produced the differences between the white man and the red which now exist.¹⁰⁷

Indian warfare, savage and barbaric to most whites, could thus be understood by the professional soldier as a function of his less developed culture, a point which was succinctly stated by Lieutenant Potter:

In war, the Indian has been regarded as a ferocious beast, and therefore life and death was a matter of mere precaution. He goes into battle smarting under manifold injuries and indignities, and he is driven into madness and despair by the overwhelming ruin which results from a war with us.¹⁰⁸

The duty of the Army in regards to the Indian was inherently contradictory, requiring it to protect both red

and white interests. Moreover, the professional ethos of the officer corps, their strong patrician values and sense of aristocratic honor, motivated them to intervene on behalf of the Indians and to protect them from the frontiersmen, particularly the infamous whiskey dealers, for whom they had little affection.¹⁰⁹ Yet with skill and determination, if not enthusiasm, these officers undertook the forced relocations of the Indians further West, onto increasingly less desirable terrain.¹¹⁰ While such efforts were "cruel in the extreme" they were nonetheless carried out.¹¹¹ Perhaps Surgeon Gilman best expressed the tangled perceptions and values held by Army officers toward "those children of the forest", when he wrote with considerable insight and compassion:

Thus it ever is: the red man of the Atlantic slope must be crowded further west, whilst his race on the far-off Pacific shores, are jostled and pushed towards the rising sun. When at last the great tides of immigration met midway between the two oceans, the remnants of the sixteen millions of those native bands of the soil, that once roamed over this broad land, who shall have left their bones bleaching beneath the waves of advancing civilization. One shudders at the thought of the many blood conflicts yet to occur between these contending races of human beings....

If we are to take history as our guide in determining the future, the right and wrong of those cruel encounters will not always rest exclusively on either side -- but one time with the red man -- at another with his pale-face brother.¹¹²

Whatever its reservations toward the business of Indian control, the Army nonetheless had on occasion to use force

to suppress uprisings. Few comprehensive descriptions of cavalry versus Indian engagements were recorded in the Antebellum period, by American cavalry officers. One exception is the illuminating account by then Second-Lieutenant John B. Hood. The distinguishing feature in this skirmish was that Hood's men, due to insufficient numbers leaving no one to spare to act as horse handlers, fought mounted, rather, than as was customary, as dismounted light infantry. On July 5, 1857, Hood set out from Fort Manon, in the Texas Department of the West, with twenty-five men of Company G of the later First United States Cavalry. Their mission was a routine patrol of the area. After some ten days in the field, Hood's men chanced upon a two or three-day old Indian trail, which the patrol proceeded to follow along a line of dried-up waterholes. The Indians being stalked were suspected by Hood to have been a band of marauders, incorrectly identified as being Tokaways (who usually fought as scouts along side the Army), who had previously ambushed American soldiers whole under the guise of a flag of truce. After several days of difficult travel through the arid, rocky, desert country, Hood's detachment finally came upon the Indian band they had been diligently hunting. Hood's operational strength had diminished to only seventeen men as a consequence of injuries to eight of his horses. Upon reaching the Indian encampment, Hood proceeded to make an initial inspection while mounted. The Indians held a

waterhole, positioning their encampment on a hillock, concealed by thick clumps of Spanish bayonet. What Hood had come across was in fact a band of some one hundred Comanche and Lyan-Apache warriors and their families.¹¹³ While decisively outnumbered, these troopers had the advantage of greatly superior firepower:

Every man was armed with an Army rifle ((e.g., A Sharps 1854-pattern single shot, breech loading carbine)) and six shooter, a few of us had sabers and two revolvers, whilst I was armed with a double barrel shot-gun loaded with buckshot, and two navy six-shooters (.36 caliber as opposed to .44 caliber - officers still commonly purchased their own side arms in this period).¹¹⁴

Indian armament consisted of bows-and-arrows, lances, buffalo hide shields and a few single shot trade muskets (so-called, because they were cheaply made especially for the Indian trade).¹¹⁵ Despite the unfavorable disparity in numbers, Hood elected to close with the Indian warriors or dog soldiers because he, like many other officers, was personally inclined to accept "the belief... that twenty well armed soldiers should be able to successfully engage four times their number of Indians...."¹¹⁶ Such beliefs did not constitute idle boasting or false bravado on Hood's part. The combination of superior firepower, as provided by Colt-Dragoon pattern cap-and-ball-revolvers and Hall and Sharps carbines, with vastly greater discipline, fire control and marksmanship allowed small bodies of troopers to deal with much larger Indian warrior bands.¹¹⁷

Indian tribes did not fight according to European concepts of warfare; tactics as such were largely unknown.¹¹⁸ By-and-large, most cavalry-infantry skirmishes arose from chance encounters; it was the Army which was the aggressor on most occasions. For the most part, Plains Indians fought what were essentially individual battles regardless of how many warriors were involved. The aims of the combatants were completely different: for the Indian, war was a question of honor and necessity, such as contests for horses or valuable hunting land; for the Army, it was their full-time occupation. The first phase of such a battle was for the Indian warriors to charge in mass and then, at about one hundred yards, split into two formations skirting the soldier's position so as to avoid their greater firepower. The Indians hoped to cause sufficient disarray among their opponents so as to draw them into their style of individual, close-order combat. The warrior's greatest achievement lay in the accumulation of personal honor, achieved by scoring coups or touches with a specially non-sharpened stick or performing some other equally brave feat. Killing an opponent, while prestigious, constituted a somewhat lower level of achievement. Once one's personal honor had been vindicated, it was perfectly acceptable for that brave to sit out the remainder of the engagement. And there was no obligation of honor for any warrior to participate actively if he and the spirits did not feel it was a good

day for him to die. In contrast, the Army's soldiers attempted to ensure the death of their opponents by aiming their weapons, unlike the Indian practice of firing in barrage-like fashion, the same as they would when hunting buffalo. Furthermore, the Army fought in controlled, disciplined formations with a clear, concerted object of trouncing their foes.¹¹⁹

Returning to Hood's narrative:

When we were within about twenty or thirty paces of the mound occupied by the Indians... a force of them advanced towards us with the flag ((i.e., a white sheet fraudulently out as a flag of peace)). Suddenly they threw it to the ground and fired upon us.¹²⁰

The Comanche and Apaches proceeded to launch their attack, on foot and horse, against Hood's detachment:

Thus began a most desperate struggle. The warriors were all painted, stripped to the waist, with either horns or wreathes of feathers upon their heads; they bore shields for defense, and were armed with rifles, lances and arrows. The full and sharp report of our rifles, the smoke and encroaching noise of the fire ((a defensive blaze set by the Indians to screen their women and children)), together with the great odds against us, the shouts of the soldiers and the yells of the Indians, betokened ((sic.)) the deadly peril from which seemingly naught but a miracle could effect our deliverance. Each man after discharging his rifle, drew his revolver, and used it with terrible effect as the warriors, in many instances were within a few feet of the muzzle of our arms. Stubbornly did my brave men hold their ground; again and again they drove the enemy back to the edge and in rear of the burning mass of weeds in our front, when finally the Indians charged desperately and forced our line back a few paces in the centre.¹²¹

Thus raged this hand to hand conflict until all our shots were expended, and it was found that

owning to the restiveness of the horses we could not reload while mounted. We then fell back about fifth yards and dismounted for that purpose.¹²²

At this point in the engagement the Indians broke off the fight, signaled by a loud piercing scream from their squaws for their dead and wounded, with an estimated ten warriors killed. Hood's detachment had suffered two men killed, four severely wounded and several flesh wounds; the unit's commander himself suffered a grievous injury as a result of an arrow which struck his left hand, pinning it to his bridle. After retreating some fifty yards to reload, Hood decided to first care for his injured. Despite his wound, Hood continued the chase, which forced the Indians back on their reservation, first with infantry and then with cavalry reinforcements. Later intelligence from the local Indian agent confirmed the actual loss of nineteen warriors, including two minor chiefs, and many wounded. The Army's dead were buried with full honors, with the following eulogy:

No useless coffin confined his breast
Nor in sheet or shroud they buried him
But he lay like a warrior taking his rest
With his martial cloak around him.¹²³

For his handling of this action, Hood was personally commended by Brevet Major-General D. E. Twiggs, commanding the Department of Texas, and quite unusually, by Commanding General Scott, for his gallantry, coolness and efficiency.¹²⁴

The tactics which the American cavalry adapted for use on the frontier were wholly French in origin; Lieutenant Kearny championed the superiority of their mounted warfare doctrine when he wrote, "in cavalry which... the French, has kept progressing in perfection ever since the great wars of Europe, everything useless has been rejected, and everything... is practiced in the best manner."¹²⁵ The 1841 or so-called Poinsett manual of cavalry tactics was lifted in total from the then standard French work on mounted warfare. At Carlisle Barracks Army horse soldiers were drilled in the techniques and customs of European-style cavalry warfare, while field commanders were left free to devise their own schemes for instructing their men in Indian fighting. And at West Point, save for Captain George H. Thomas's brief tenure (1850-1851) as instructor of cavalry tactics, cadets received no instruction whatsoever in the intricacies of Indian management.¹²⁶

Not only were the cavalry tactics not affected by frontier experience but the Army's equipment and weaponry was equally little affected. The enormous gulf between the formal, professional Army and the ragtag force guarding the frontier, was demonstrated by their continuing commitment to the arme blanche as the primary cavalry weapon. Only a handful of men and officers carried a saber into the field; its principal functions in the West were ones of ceremony and as a badge of rank. Saber charges of the classical,

European variety were virtually unknown in the Indian wars of the Great Plains. Moreover, many a cavalry officer questioned the utility of carrying swords when engaged in Indian fighting. Major Albert Gallatin Brackett pointedly expressed the limitations of the saber, when he wrote:

The saber in Indian fighting is simply a nuisance, they jingle abominably, and are of no earthly use. If a soldier gets close enough to use a saber, it is about an even thing as to who goes under first....¹²⁷

Similarly, Major-General William Hardee argued that in Indian fighting, a saber was unnecessary because:

In marching it makes a noise which may be heard at some distance, perhaps preventing a surprise, and in a charge, when not drawn is particularly an encumbrance.¹²⁸

The cavalry was very deficient, as well, in its firearms. Granted that most soldiers, of whatever branch of service, were only "average marksmen", and that most commanders rarely emphasized target practice, yet the cavalry's firearms were exceedingly inefficient even by the standards of the day.¹²⁹ As Inspector General, Colonel Joseph Mansfield put it in his official report, "the musketoon as arm for the dragoon or mounted man in any way is almost worthless."¹³⁰ While "illy suited" for the demands of Indian fighting, the smoothbore remained in service until the Civil War.¹³¹ The Ordinance Bureau, hidebound in its devotion to orthodoxy in firearm design, fought aggressively to block the adoption of first the Hall carbine, then the Sharps carbine and the Colt revolver as mechanically unreliable, as

too complex to be issued to common soldiers, and far too expensive.¹³²

The uniforms of the dragoons and mounted rifles were wholly unsuited for the rigors of frontier service. Heavy wool cloth, tightly cut and adorned with brass scales on the shoulders to ward off saber blows were fit only for placid surroundings of an eastern parade field. Most soldiers and officers improvised their own personal field uniform, consisting of a mixture of civilian and Army-issued clothing.¹³³ Perhaps the most glaring example of the continuing domination of formal European military doctrine, regardless of actual experience in Indian fighting, can be found in the selection of mounts for the cavalry. The dragoons and the mounted rifles were created specifically to combat the swift and highly mobile Indians of the Great Plains. The Army's leadership, however, desiring to make their cavalry units fit-and-proper according to European military standards, chose standardbreds, thoroughbreds and Morgans as their mounts. Such majestic animals were functionally outclassed by the unimpressive-looking Indian pony. The Army's horses required greater care and were dependent for their sustenance on grain, preferably oats, and not the abundant wild prairie grasses. Not only were the Army's horses inferior as cavalry mounts, in regards to the requirements of Western Indian fighting, they were decidedly slower as well. Furthermore, speed was not an appropriate term to describe a

trooper in the field, weighed with up to a hundred pounds of weapons and supplies. Eventually, cavalry commanders, once having become adjusted to the realities of patrol duty on the Great Plains, trimmed the weight of the loads carried by their troopers to a more functional fifteen to forty pound range. The Army, unlike the Mexicans and the cowboys, never adopted the sensible Indian practice of maintaining a reserve supply of horses for their dog soldiers. The absence of such a remada system, as shown in Hood's account of one fire fight, meant that each trooper had to depend upon his one animal which, in turn, required over eight hours of rest per day.¹³⁴ Thus, to many cavalry officers, orthodox concepts of mounted warfare, as officially adopted by the United State Army, were inappropriate for the requirements of frontier security duty. Colonel Randolph B. Marcy succinctly stated the problem of inappropriate and largely unworkable tactical theory being out of line with tactical reality on the western prairies when he wrote:

The art of war, as taught and practiced among civilized nations at present day, is no doubt well adapted to the purposes for which it was designed viz.... The organization of armies acting in populated districts, furnishing ample resources, and against an enemy who is tangible, and makes use of similar tactics and strategy. But the modern schools of military science are but illy suited to carrying on a warfare with the wild tribes of the plains.¹³⁵

The quaint notion of trying to spear such a swift and dauntless adversary as the mounted American Indians with a lance or sending a relatively plodding cuirassier waving his

saber after such a nimble foe was patently absurd. Yet that was what was prescribed by the Army's manuals on cavalry warfare. Certainly, had the Army been so inclined, it could have developed its own unique school of cavalry tactics, tailored to the requirements of the Great Plains. The Congressional opponents of the regular cavalry emphasized the value of irregular troops, unburdened by the formalities of European warfare ala the Texas Rangers, as a preferable military force for the task of Indian control. The 1833 United States Army had no active cavalry tradition for nearly eighteen years prior to the establishment of the dragoons. As Cooke effectively argued: "the service of cavalry had become with us a forgotten and unknown branch of military knowledge, something to be read of, as we do, of the Macedonian phalanx."¹³⁶ The Army's leadership, however, had dedicated the regular military establishment to the French-Austrian school and the requirements of waging a European-style war, so as to avoid further humiliation of American arms as produced by the War of 1812. There was simply no room for the official sanctioning of deviance from the orthodoxy of European warfare. After all, frontier policing was not even a military task at all but rather a necessary but onerous duty imposed upon the Army by the President and Congress. In addition, even among the hardest and most experienced of cavalry officers there existed a deep, personal commitment to military professionalism.

Thus, for example, Cooke, long a dragoon officer and eventual commander of the First Regiment, could, in the best romantic style of military writing, author a stirring tribute to the ethos of cavalry warfare of the classical tradition:

The speed of a line of charging cavalry, the aggregate of life, motion, mass, and power gives a spiritual momentum to both rider and horse.¹³⁷

The long isolated service on the Great Plains would have appeared to have been a poor incubator in which to develop American military professionalism. Indian fighting certainly provided the Army's officer corps with few if any opportunities to employ their formal skills in the art of war. The political necessity of maintaining numerous tiny forts and garrisons scattered on the western prairies was clearly not conducive to supporting a high level of morale. Colonel Marcy, reflecting a general consensus of the officer corps on this issue, vigorously attacked this practice when he wrote: "The morale of the troops must thereby ((be)) impaired and the confidence of the savages correspondingly augmented. The system of small garrisons has a tendency to discourage the troops in proportion as they are scattered, and renders them correspondingly inefficient."¹³⁸ Considerable amounts of time and labor while on post had to be expended on such non-military chores as heavy construction and farming due to the financially stringent budgets passed by Congress.¹³⁹ Frontier service was hard, tiring, and un-

imaginative work. Most garrison posts consisted of a few huts, a well and little else, situated in the main, far from any town. The privations and hardships of the frontier made Army service unrewarding and unattractive. As one army wife so plaintively put it:

Little does the casual observer of West Point know of the after existence of its graduates and their lives of exile and privation on the frontier, passed in largely seclusion from the world, a stranger to the ordinary comforts of civilization.¹⁴⁰

The arduous requirements of frontier duty were reflected in the exceptionally high rates of desertion. In any given year during the Antebellum period, as much as one-third of Army strength was lost to desertion. This was in spite of brutal corporal punishment, including flogging and branding. Field patrols offered only an occasional respite from the tedium of garrison duty. For officers, there was no formal incentive for pursuing their studies in the art of war. For line officers, there were few of the opportunities for varied and interesting careers available to engineers, coastal artillery and staff officers.¹⁴¹ The grueling and highly taxing nature of frontier service was painfully described by Captain Lemuel Ford, who in his final two years of frontier duty with the First Dragoons (1834-1836) saw his family for only a couple of weeks and who died due to a disease contracted on the Plains: "I am clearly of ((the)) opinion that a soldier be so disencumbered from the things

of the world as to be all wasy ((sic.)) Ready to March, Ready to Fight and Ready to Die."142

It might seem, upon initial examination, that the conditions of western frontier security duty afforded the Army opportunities to employ the doctrine and skills of a European-style military service. Certainly the task of Indian control, with an emphasis upon highly unorthodox modes of warfare, provided no chance for the use of either classical cavalry or infantry tactics or permitted more than the infrequent employment of such key weapons as the saber or the bayonet. Yet valuable lessons of command and leadership were extracted from their long years of frontier service by Army officers. "The Dragoon regiments," as one officer stated it, "are almost constantly upon the move at the West, and the continued marching gives officers and men the practical knowledge of their duties so eminently essential to cavalry."143 The heart of a nation's war fighting system is not the particular tactical and strategical doctrines in use or the weapons which equip their soldiers. Rather, it is the constellation of social, professional, political and intellectual concepts and values that constitute the world view of an officer corps and which in turn, serves as the foundation of a country's war fighting system. Thus, it was the long, unrewarding and solitary years of frontier duty which served to create ties of fellowship and professionalism among members of the officer corps. It was

precisely the isolation and insularity of frontier service that gradually converted the goal of military professionalism in the American Army officer corps into reality. The long hours spent in casual conversation, when officers "fought their battles o'ver ((sic.)), from West Point and the girls they left behind them through the swamps of Florida, the wilds of Texas, over the great plains, the mountains, on the fields of Mexico" as well as other forms of social interaction created the mortar which bonded these soldiers together as professionals engaged in a unique activity as part of a collective enterprise.¹⁴⁴

Granted that individual enmities and personal dislikes between officers, many forged at West Point, were fueled by the smallness of the American officer corps and by the restricted opportunities for career advancement. In the main, however, military professionalism grew strongly in the Antebellum era. Of perhaps even greater importance, to the development of military professionalism were the continual proofs, provided by the various campaigns of the Army during the Antebellum period, of the essential validity of the post-War of 1812 reforms. Thus, the Black Hawk War and the Seminole War served powerfully to demonstrate the key lessons that due to massive and unwarranted political interference, the Army would have to rely on its own expertise to save the nation from foreign invasion and that in turn, reliance on the militia was dangerous and ineffectual.¹⁴⁵

The long years of frontier duty, hampered by grossly inadequate resources and funding, further reinforced ties of solidarity among the officer corps. The ceaseless and frequently unproductive involvement of Congress and the executive branch in what the officer corps viewed as intrinsically internal military matters, further solidified the sense of collegiality among Army officers.¹⁴⁶

Part V

In 1846, the United States Army was finally provided an opportunity to vindicate its faith in military professionalism and the French-Austrian school of war. The Mexican War (1846-1848) offered the Army its first chance since the War of 1812 to field brigade and division-size units. This war can be divided into two parts. The first was the irregular war, fought in what is now the Southwest United States and California. The centerpiece, insofar as the cavalry was concerned, was Colonel Stephen Kearny's almost bloodless seizure of Santa Fe, New Mexico, and his subsequent epic march through the uncharted Southwest desert to California. Kearny, with only one hundred regular dragoons of the First Regiment, prevailed against some five thousand Mexican regulars due to highly efficient and quite unusual close cooperation with a regiment of Missouri volunteer rifles. After almost effortlessly securing his assigned target, Kearny elected to take a proportion of his command westward to the

Pacific. The crossing of some twelve hundred miles of largely unmapped and exceedingly inhospitable country, without incident in three months, was brilliant proof that the United States Army had mastered the difficulties of long range western travel. While fascinating and heroic, Kearny's expedition was at best only a sideshow of the war with Mexico. The only significant application of American cavalry in this war, it was wholly lacking influence on Army tactical doctrine. The real war, to the south, was instead to be fought according to conventional tactical principles, under which cavalry would assume its proper function as an adjunct to the infantry.¹⁴⁷

The Mexican War proper, encompassing the campaigns of General Winfield Scott and Zachary Taylor, was marked by only limited and not particularly effective use of American cavalry. One crucial factor in hindering the field effectiveness of the regular cavalry was the notable lack of regimental unity. Neither the First, Second or Third Dragoons (the latter created by Congress for temporary war service on February 11, 1847) ever served as fully organic cavalry regiments. These units, as with the assorted volunteer cavalry formations, were habitually broken up into ever smaller detachments, doled out to various grades of field commanders when the need for mounted troops arose and when adequate numbers of horses were available. The Mounted Rifles fared much better in retaining regimental unity due

to the humiliating fact that all their mounts were lost when the transport carrying them to Mexico sank in a storm. Surprisingly, only a single company of the mounted rifles ever served on horseback in this war, despite the huge numbers of mounts captured from the Mexican Army.¹⁴⁸ The volunteer cavalry units were rarely more than nuisances, having only marginal offensive combat effectiveness as horse soldiers. According to one regular cavalry trooper, Samuel Chamberlain, sounding the complaint of most dragoons, the volunteers were almost useless:

The material that these regiments were composed of was excellent... the men possessed fine... strength combined with activity, but they had no discipline, or confidence in their officers....

Their impatience of all restraint and egotism made them worse than useless on picket; while in camp, they were a perfect nuisance.¹⁴⁹

The adversaries of the American mounted forces were highly trained, thoroughly European in their organization and tactics and superb horsemen. The Mexican cavalry numbered in the thousands, not counting auxiliaries. In comparison, the Americans never managed to muster more than six hundred troopers on horseback for any given battle. The high level of Mexican horsemanship earned their cavalry ample praise from their North American antagonists. According to Colonel Brackett, who served in Mexico:

Our people had the advantage of larger horses and heavier men as a general thing, but the Mexicans were much more agile, and would handle their horses as well as perhaps any people on

earth... as the Mexicans, accustomed as many of them are to a life on horseback, and all of them feeling a pride in owning horseflesh, it did not take them as long a time to train them as it did us, who particularly those from older states, knew little or nothing about riding or managing horses.¹⁵⁰

American mounted forces played only small, supporting roles in such key battles as Palo Alto, Buena Vista, Molino Del Rey and Mexico City. Their functions were principally ones of drudgery: guarding lumbering supply columns, serving as officer escorts and, more dangerously, hunting down the unprincipled Mexican guerrillas. Even cavalry's traditional forte, scouting, was performed by another branch of the Army--mounted engineers, with horse soldiers acting only as an escort. Aside from organizational disruption and the rough, jagged terrain of Mexico, the primary obstacle to the more innovative employment of American mounted forces lay with senior officers and their devotion to European rules of warfare. Both Scott and Taylor, by training and vocation, were infantrymen, with little more than theoretical knowledge of the use of cavalry in battle. Both officers were professionals, grounded in European concepts of tactics which made cavalry simply a handmaiden of the infantry. Where cavalry participated in major engagements, it usually fought dismounted. The general lack of troops caused the use of every available man--soldiers, Marines, volunteers and even sailors--as infantry. While the fortunes of the cavalry arm did not prosper in the course of the Mexican

War, the Army itself reaped massive benefits. With speed and dispatch, the Army had defeated a much more numerous foe on his home territory and quite distant from its supply sources. Granted that on a contemporary scale of international significance, the Mexican War was a rather piffling affair, it nonetheless was a considerable achievement for American arms. It was in particular, a triumph of military professionalism. Scott's brilliant campaign against Mexico City was a textbook application of Jomini's concepts to the solution of a particularly thorny military problem, which as the Commanding General himself put it, was "to compel a people, singularly obstinate, to sue for peace it is absolutely necessary... to strike effectively at the vitals of the nation."¹⁵¹ Scott therefore directed the main American military effort at the Mexican capital, in classic limited war fashion, avoiding pitched battle as much as possible and having accomplished his objective, forcing the Mexicans to sue for peace.

The relative isolation of the Mexican theater of operations from the United States lessened the availability of the militia forces and correspondingly increased the importance of the regulars; or as Captain W. S. Henry put it, "I can not but repeat, that we all ((i.e., the officer corps)) feel proud that these conquests had been effected by the army proper." That is not to say that the volunteers were unnecessary, far from it, since the regular Army was simply

too small to have undertaken the war by itself. The volunteers, overall, thus fit into the niche assigned them by the Army's warfighting system, as auxiliaries to the regulars. However, as in the earlier frontier wars, the Army retained its strong aversion toward the citizen soldiers as less than effective in battle. The general position of the Army that "campaigning is entirely out of... ((the militia's)) line," was as once again demonstrated by the Mexican War, as was forcefully stated by Henry:

Before this war is over, the government will be forced to confess, and the volunteers freely acknowledge, without any charge against their patriotism or efficiency, that the volunteer system is one of the most outrageously expensive and inefficient way with which any government could undertake a war of invasion.¹⁵²

A more savage criticism of the volunteers was made by a then highly promising Second-Lieutenant of Engineers, George B. McClellan, reflecting a good deal of the Army's pent-up resentment at these amateur soldiers:

I allude to the sufferings of the volunteers. They literally... ((act like)) dogs. Were it all known in the States, there would be no more hue and cry against the Army, all would be willing to have a large regular army that we could dispense entirely with the volunteer system.¹⁵³

The conduct of the war and the subsequent occupation of Mexican soil was conducted with honor and integrity, "that high standard of virtue and honor", according to General Scott, "which we boasted at home."¹⁵⁴ The Mexican War, however, was completely unoriginal in regards to the arts of war. Aside from a few percussion-capped rifles (which Scott

attempted to block from entering service on grounds of ordnance conservatism) there were no differences from the tactics, weapons and equipment used at Waterloo some thirty-two years earlier. Moreover, there were none of the numerous problems of command and logistics that plagued the British Army in the Crimean War to mar the Army's overall high level of military effectiveness. Of course there were still problems between the Army and the executive branch in the division of responsibility in directing the war effort; Scott and President James Polk were almost constantly quarrelling over American war aims and tactics, for example.¹⁵⁵ Measured by results, however, the American military effort against Mexico was considerably better managed than the War of 1812 fiasco. Acceptance of military professionalism thus enjoyed a badly needed and quite considerable boost from the stellar performance of the regulars.¹⁵⁶ West Point, according to Ashbel Smith, as a result of the superb performance of its graduates in Mexico, had "fought itself into favor at home; the science, skill, soldierly deportment, and valor of the graduates of the Academy have gained a great triumph over the prejudices of the ignorant among our citizens."¹⁵⁷

The Army had thus, in the span of only thirty or so years, matured into a truly modern and capable military force. It had done so in the face of massive popular and political opposition, crippled by lack of resources and

manpower and despite its long, odious and dishonorable misuse as a police force to suppress the Indians. The War of 1812 had been the nadir of the Army's prowess and reputation as a fighting force. Secretary of War Cass expressed this point exceptionally well in 1836:

We were comparatively ignorant of the state of military science and we did not fully recover our true position till we had received many severe lessons, at what expense of life and treasury need not be stated.¹⁵⁸

The efforts of the post-War of 1812 reformers-- Gaines, Macomb, Thayer, Calhoun, Scott and the others--was thus vindicated by the triumph of American arms in Mexico. While to many Americans the regular military establishment would remain tainted with the traits of decadent, aristocratic Europe and subject to obloquy and hounded with political opposition, the Army, despite the shrill cries of a few that in fact American victory in Mexico was really the rejection of European principles of scientific warfare, had won for itself a new and valid claim to be vital for national defense and an effective agent of the country's foreign policy.¹⁵⁹ Jefferson Davis, a West Point graduate and himself a hero of the Mexican War as a volunteer officer, in a speech given as a Congressman to honor General Taylor, announced the apparent lessons of the conflict quite effectively when he proclaimed:

Much was due to the courage which Americans have displayed on many battlefields in former times; but this courage, characteristic of our people, and pervading all sections and all

classes, could ever have availed so much had it not been combined with military science. And the occasion seem suited to enforce this lesson on the minds of those who have been accustomed in reason and out of reason, to rail at the scientific attainments of our officers... arms, like any occupation, requires to be studied before it can be understood, and from those things, to which he had called his attention, he will learn the power and advantages of military science.¹⁶⁰

This newly won sense of military honor and the potency of arms enormously increased Army morale and confidence. The final verdict on the effectiveness of the Army in transforming itself into a proper military service was best rendered by Captain Mahan, the United States' foremost military theorist of the Antebellum era. The West Point professor praised the achievements of the professional Army he had labored so long to create:

Of all the civilized states of Christendom, we are perhaps the least military, though not behind the foremost as a warlike one. A sounder era, however, is dawning upon us.... It was reserved for the expedition to Vera-Cruz, and its sequel, Cerro-Gordo, to bring into strong relief the fact, that we were unostentatiously, and almost silently becoming a powerful military state. The lesson will not be lost upon our neighbors, however slowly we, in the end, may profit by it. A shout has gone forth from the Rio-Grande, and the shores of the Gulf of Mexico, which heard on the Thames and the Seine, has resounded along the far-off shores of the Baltic and the Black Sea, and will reach farther Id., bearing with it a significance that no prudent statesman will hereafter affect to misunderstand. What are the military resources of this great republic is no longer a question; a more thorough organization is alone wanting for their complete development.¹⁶¹

Chapter IV

JEFFERSON DAVIS, THE 1856 MILITARY COMMISSION TO EUROPE

AND THE MINIE BULLET RIFLE:

THE REAFFIRMATION OF THE FRENCH-AUSTRIAN SCHOOL

IN AN ERA OF TECHNOLOGICAL AND SOCIAL CHANGE

Part I

The clear victory for military professionalism won by the United States Army in Mexico was translated into tangible gains for the nation's military service in 1853. Congress, at the request of President Franklin Pierce's newly inaugurated administration, approved the largest single increase in Army strength since the War of 1812. In addition to four infantry regiments, two new mounted units were added to the Army's order of battle, the First and Second Cavalry Regiments. Numerically, the strength of the Army expanded from approximately eleven thousand men to over sixteen thousand. For the first time since the War of 1812 the United States Army possessed sufficient numbers of troops to free it from dependence upon the militia save in the largest of conflicts. While the Army was still "inferior to the best armies of Europe," according to the former Secretary of War Joel Poinsett, the 1855 expansion signaled a new era enhanced military effectiveness as well

as new political enthusiasm for military professionalism.¹ In a very clear fashion the nation's political leadership, at least for the moment, had conceded Poinsett's conclusion:

...that no nation, whatever may be its resources and money, can long carry on an aggressive war with volunteer forces, or with a majority of its troops composed of volunteers who have, for the most part, to be drilled and disciplined in the presence of the enemy.²

Succeeding John C. Calhoun as the leading political advocate of a professional military service, was the new Secretary of War, Jefferson Davis. An 1828 graduate of West Point, Davis had soldiered some seven years with both the infantry and the First Dragoons on the western frontier. In the Mexican War, Davis had served with distinction as commander of the volunteer Mississippi Rifles. Davis was an ardent and influential proponent of the regular Army and of military professionalism. A student of military theory and history, Davis's personal philosophy of the art of war was totally Jominean and French-Austrian in character. In his 1854 Report as Secretary of War, Davis succinctly expressed his faith in military professionalism when he formally attacked the opponents of the regular military establishment: "It has been stated... that if in 1831 a small mounted force had been at the disposal of the War Department, the Black Hawk War might have been prevented; and... in 1835, if a few additional companies had been sent to Florida, the Seminole War would have not occurred."³

Under Davis's exceptionally effective administration, numerous significant improvements were made in Army weaponry, force structure and its preparation to wage war against a European would-be adversary. Davis compelled adoption of the 1856-pattern Springfield Rifle of the new Minie bullet type over the strong objections of some senior officers. To accompany this new weapon, a major revision in the infantry manual was authorized by Davis. Moreover, the first pay raises in twenty years were authorized as well as the introduction of a more modern and spiffier uniform, both items aiding the general uplift in the morale of the Army. Fortress design was overhauled as well, during Davis's tenure as Secretary of War, to bring American practice in line with the latest European advances. One of Davis's more whimsical experiments consisted of the formation of a camel corps, patterned on French Algerian experience, for patrol duty in the Southwest.

The establishment of the first American regular units to bear the designation cavalry, complete with the revived use of yellow facings and stripes on their uniforms, was also undertaken in these years. The first and Second Cavalry Regiments were the personal favorites of Davis, and were intended to be elite units. Granted that the less dashing Corps of Engineers and the Corps of Topographical Engineers ranked at the top of the list of career positions and that the cavalry was at the bottom. Yet the tradi-

tional, aristocratic lure of gallant troopers and powerful steeds, as well as Davis's personal involvement in the selection of officers for these regiments, led many promising men to join these units. Moreover, there was a distinct Southern bias to the officers of these two regiments. Officers such as Lieutenant-Colonel Joseph E. Johnson (general CSA), Captain George B. McClellan (general USA), Lieutenant George H. Stuart (general CSA) and Lieutenant James E. Stuart (general CSA) were among the staff of the First Regiment; the Second, in turn, included in its ranks such future luminaries as Colonel Albert Sidney Johnston (general CSA), Lieutenant-Colonel William J. Hardee (general CSA), Captain George E. Stoneman (general USA) and Lieutenant Fitzhugh Lee (general CSA). The predominance of Southern officers in these regiments would later serve as "evidence", during the Civil War, that Davis was in league with some fiendish cabal to create surreptitiously a future confederate mounted service.⁴

The immediate tactical role of the First and Second Cavalry lay in conventional Indian control duty in the Southwest and Texas. These two new regiments, plus the additional infantry units and the camel corps were the operational component of Davis's new, so-called desert plan of pacifying the western frontier. Patterned after Marshal Thomas-Robert Bugeaud's brilliant plan for the French conquest of the Algerian interior, Davis's new program for

suppressing Indian hostilities was intended to correct many of the deficiencies in the Army's earlier stratagem of frontier control. The cornerstone of the great desert plan was the abandonment of numerous small garrisons and the concentration of the Army's troops in large, strategically located forts. The problems of morale, isolation and poor logistical support were simultaneously dealt with by setting major Army garrisons near towns, and on major water transport routes near the edges of the western frontier. The addition to the Army's mounted resources was of vital importance; the desert plan required extensive patrolling and swift and efficient retaliatory action for Indian incursions. This new plan was thus the final abandonment of the static defense system implemented in the immediate post-War of 1812 years, during Jacob Brown's tenure as Commanding General. In turn, the great desert plan would serve as the foundation of the Army's Indian control policy for the remainder of the century.⁵ On the higher level of Army planning and organization, the First and Second Cavalry conformed closer, in theory at least, to European mounted warfare doctrine than had the earlier dragoon regiments. As a former cavalryman, Davis penned an authoritative and informed explanation of the organizational nature of the new mounted regiments and in turn, a withering criticism of earlier Congressional interference in internal War Department and Army matters, as to the composition, mission and equipment of horse units.

The cavalry force of our army being all required for active service of the same kind, there appears no propriety in making a permanent distinction in the designation and armament of the several regiments; it is therefore, proposed to place all the regiments on the same footing in these respects, and to leave it in the power of the executive to arm and equip them in the manner as may be required by the nature of the service in which they be employed.⁶

Davis's policy statement as to the nature of the new cavalry regiments and his sharp rebuke of Congressional involvement, as for example in the mounted rifles, in internal Army matters, had several aspects. The emphasis on unit rationalization into a few specific types (which for the Army's horse units was finally achieved in 1861 when Congress formally redesignated them all as cavalry) was clearly one of Davis's objectives. The specific form of the First and Second Cavalry as all-purpose mounted units, as opposed to being light, heavy or dragoon, was not however intended to improve the effectiveness of the Army's horse soldiers in Indian fighting. As with both the mounted rifles and dragoons, the cavalry followed the usual dismounted, informal tactics of Indian fighting. The emphasis on utility reflected, instead, the then latest fad in European-style cavalry units. Recall the debate between the proponents of heavy and light cavalry over first, which types of mounted units would be required in future hostilities, and secondly, whether advances in firepower rendered the cuirassiers and thus the use of shock as being

obsolete. This rather lively debate peaked late in the 1860s, when cavalry traditionalism reasserted itself. Thus the organizational character of the First and Second Cavalry reflected the perspective of those cavalry experts championing flexibility over tradition; mounted units which could effectively serve all three roles as light, heavy, and dragoons.⁷

On a broader level, that of national war policy, Davis's viewpoint was representative of the new, assertive sense of professionalism then being articulated by the officer corps. The growing sense of group identification among members of the officer corps was strongly articulated by Davis in direct criticism of Congress of overstepping its authority when it had involved itself directly in determining internal military policy matters, such as weapon types or uniform design, which properly were within the jurisdiction of the War Department and the executive branch. In this respect, Davis vocalized a far more direct and pungent critique of Congressional encroachment onto the authority of the executive branch in determining the particulars of national military policy than had earlier been expressed by Calhoun. The officer corps' new influence was the result of Calhoun's administrative reforms, the bureau system, which was thus beginning to assert itself in military policy formation. Thus, through the bureau's superior knowledge of military matters, the determination of the particulars of

Army equipment and organization, swung almost permanently to the executive branch.⁸

Part II

The 1850s background to Davis's Army reforms constituted an era of considerable change in not only military affairs, but also technology and society as well. On the broadest level were major changes in the nature, quality and quantity, of economic output. The enormous increase in the production of iron and the emergence of highly efficient steel manufacturing processes resulted in immediate changes in the nature of weapons production. The use of steel not only allowed for considerably higher levels of weapon performance, but also facilitated standardized and easily repairable machined parts which significantly reduced the costs, in both time and money, entailed in the manufacture of arms. Artillery, for example, was virtually reborn as a weapon system. No longer were clumsy reinforcing bands needed around the muzzle; unit construction permitted the use of much stronger charges of powder, hence greater range and the use of larger and more potent projectiles.⁹ The development of mechanized, factory assembly lines for the production of weapons, allowed for unheard of speed in equipping large numbers of troops with the tools of war.¹⁰ The railroad worked to dramatically multiply the quantities of goods and men which could be moved from one area to another. The speed of army movement, as regards the number

of miles per day, escalated from a maximum of sixty to eighty miles by forced march to between one hundred and two hundred and fifty by rail. And a unit transported by rail suffered none of the debilitating effects to unit efficiency and fighting power which followed a forced march.¹¹ Steam power also revolutionized ocean transportation. Ships were no longer captive to the currents and winds, sailing times dropped by as much as half and the size of cargos expanded. Steel in turn was being employed in the construction of larger, faster and more durable vessels than had heretofore been possible.¹² Communications were transformed as well, due to the invention of the telegraph. For the first time in history, senior army commanders could immediately and effectively direct military formations dispersed over distances of hundreds of miles.¹³

These new technologies were known to military leaders; the problem, however, was a lack of perception of how deep the impact would be on the practices of war. Moreover, except for the Prussians and their centralized staff command system, no army of this period possessed one central body to oversee and manage significant technological change. The series of innovations, which converged into a new industrial order in the 1850s, was not, however, without precedent. The agricultural revolution had by the end of the Eighteenth Century caused an enormous increase in fodder and food production. Consequently, there was a dramatic increase in

the ability of nations, during the Napoleonic Wars, to support armies of unprecedented size, hundreds of thousands in number, without the massive damage, as in the previous Thirty Years War, to the agrarian resources of those countries.¹⁴ Similarly, the considerable improvement in road construction in conjunction with the widespread building of canals had significantly increased the mobility of armies and the capacity of logistic nets during these wars. Furthermore, the enormous increase in army size and the corresponding growth in mobility occasioned the development out of the quartermasters corps the first general staffs in European military history.¹⁵

The most immediate effect on military theory and planning lay in the field of artillery improvement. The 1850s seemed to be the beginning of a new era in military tactics in which artillery would finally come to dominate the battlefield. The Queen of Battle only began to assert herself as a dominant weapon during the Napoleonic Wars, as the French Imperial Army, saddled with ever more poorly trained soldiers, shifted the tactical emphasis of battle from the bayonet to the cannon. The new iron and steel rifled cannon of this era could throw a shell the astounding distance of over two thousand yards compared to the rather feeble eight hundred or so of the smoothbores. Accuracy was greatly improved as well, with the introduction of the new weapons. The enthusiasm of the artillerists was in no way

dampened by the then little-understood fact that there was no way of directing long range cannon fire on land. Traditionally, smoothbore guns, characterized by relatively long range and flat trajectory, were unlimbered close to the forward edge of battle to be used as scatterguns. Such weapons could be directed very effectively against line-of-sight targets such as fortresses. Except for a small number of howitzers, featuring short range and high angle fire, little attempt was made to deliver indirect fire on enemy troops shielded by protective cover or to direct counter battery fire against enemy artillery. The problem lay in being able to observe the enemy's positions without the obstructions of smoke and obstacles and in turn being able to communicate quickly this information to the gunners. Artillerists for the previous three hundred or so years had developed their art on the basic premise that their target would be visible; the difficulty was therefore how to develop a system of indirect fire control by forward observers, with more effective field communication methods than flags, bugle calls or messengers, and in turn, having the gunners accurately deliver fire out of sight of and miles from their target. At sea, in contrast, with wide expanses of flat, open water, long range fire was not only possible but was in fact, standard for naval gunnery by the mid 1850s.¹⁶

The aspect of the new arms technology which would have the most immediate impact was the less impressive but vastly improved rifled musket. For one hundred and fifty years the primary weapon of the infantry had been the smoothbore musket of .54 to .75 caliber, firing a lead ball three quarters of an inch or so in diameter, weighing nine to twelve pounds and some eleven feet in length. Between forty and fifty yards, the smoothbore musket was a truly terrifying weapon. The hail of lead generated by a line of musketeers at this range hit with the impact of a huge shotgun, inflicting fearsome casualties. At greater distances, however, effectiveness greatly declined. One British ordnance expert, Colonel Henger, in 1814, expressed quite well the widely understood limitations of the smoothbore musket when he stated:

A soldier's musket, if not exceedingly ilbored ((sic.)) as many are, will strike the figure of a man at 80 yards... but a soldier must be very unfortunate indeed who shall be wounded by a common musket at 150 yards, provided his antagonist aims, and as for firing at 200 yards you might as well fire at the moon.¹⁷

As with all smoothbore weapons, the ball once fired, followed a trajectory that soon became excessively curved and erratic. Consequently, therefore, this severely limited the range of these weapons. Moreover, a smoothbore musket with an attached bayonet could not even be aimed. There were no rear sights and the primitive front sight (usually no more than a small knob of metal at the end of the barrel)

was completely obscured by the bayonet socket ring. Accuracy of this weapon was therefore minimal; only an average of between 0.2 to 0.5 percent of all rounds discharged per engagement, or about one out of every thousand or so, actually registered a hit. In effect, therefore, in order to kill a man in an attacking infantry column, one had to fire up to seven times an average man's weight in lead balls. Hence, in order to maximize infantry firepower, the troops of the line were arrayed in tight, compact formations and ruthlessly trained to function like well-programmed automatons. The weapon itself possessed many possible dangers to the soldier using it. The flash of the ignition powder in the pan of the weapon not only obscured vision, it could, on occasion, even blind a man. Slight variations in the quality of powder could cause significant changes in the force of the recoil or even cause the weapon to explode. Frequently, in the heat and confusion of battle, men forgot if the weapon had in fact been discharged, reloaded and in turn caused the double or even triple loading of the piece, the excess charges causing the weapon to explode. And if a soldier were a mere foot ahead of the firing line, his eardrums would be instantly ruptured by the discharge of a volley. Furthermore, the soldiers had to move in formation, to within one hundred yards of the enemy before fire was normally commenced, exposing themselves to the full weight of a counter volley. Infantrymen, first and foremost, had

to be experienced and highly disciplined for Eighteenth Century tactics to work. For men to stand fire under such circumstances and in turn to be calmly able to receive the still more frightening bayonet charge, when they were dispassionate mercenaries, frequently dragooned into service, demanded the most brutal of corporal punishment. Consequently, the terror of being caught as a deserter had to outweigh the risk of staying in formation.

From a design standpoint, the smoothbore had other significant failings as a weapon. The exposed panner meant it could not be used in inclement weather. And it was unreliable as well; out of an average 6,000 rounds fired from flintlocks, there were an average of 922 misfires or one in each six and a half rounds discharged.¹⁸ There were, however, no better weapons available to European-style armies. Tactically the one hundred and sixty years prior to the Civil War can be defined as a process of experimentation and refinement, of finding the best means of making do with the smoothbore in battle. Volley fire was expressly devised so as to concentrate the greatest number of projectiles at a specific target. The fundamental principles of effective volley fire were well described by Eighteenth Century military writer, Bland Humphrey, an accounting which would remain valid through the Civil War:

Draw your enemy's fire if you can, and if your battalion still advances you must win...it being certain that when troops see others advance, and going to pour in their fire amongst them when

theirs is gone, they will immediately give way, or at least it seldom happens otherwise.¹⁹

The solution to the numerous and manifest deficiencies of the smoothbore musket lay in the development of the military rifle, "the most formidable description of small fire-arms yet known," according to Lieutenant Richard Nicholson Magrath of the British Army.²⁰ The problems in making the rifle a truly practical replacement for the smoothbore musket, were, however, complex and extremely technical.

The rifle had been in use, principally as a sporting weapon, since the early Sixteenth Century. The distinctive grooves (or rifling) carved into the interior sides of the barrel, served to give the rifle ball greater velocity and higher angle of trajectory. The result was a considerable improvement in both accuracy and range relative to the smoothbore musket. The famed Kentucky or Pennsylvania rifle of Davy Crockett was accurate up to four hundred yards while the British Baker rifle, used in the Peninsular Campaign (by the rifle brigade) could do work up to three hundred yards. Mass use of rifles by armies, however, was simply not feasible. The overriding technical problem was the slowness of reloading the weapon. Whereas a smoothbore musket, in the hands of an average infantryman, could be fired at the rate of three or four rounds per minute, the rifle, at best, could be discharged no more than once every two minutes. The difficulty in reloading the rifle arose from the fact that

the soft lead ball had to be forcibly rammed down the barrel. The rifling, to which the ball was forced to conform by use of the ramrod and thus causing the characteristic spin of the projectile when fired, worked, however, as well, to obstruct passage of the round down the barrel. In fact, it was not uncommon for riflemen to resort to the use of hammers to pound the ramrod home when the ball became stuck in the barrel. A second major problem with most rifles was that a bayonet could not be attached. The dangerous combination of an exceedingly slow rate of fire and the lack of a bayonet caused the rifle to be loathed by most infantrymen. Still another major failing of the rifle lay in the poor fit between the rifling and the ball (since both were handmade, no standardization was possible, further imperiling performance). This resulted in the gas created by the ignition of the powder charge being able to escape, reducing velocity and range, and in turn causing the weapon to foul far faster than a musket. Thus, after the discharge of only a few rounds, the barrel became so obstructed as to cause a sharp decline in range. The combination of technical problems, the active hostility toward the rifle by most line soldiers and the resulting need for highly trained and quite expensive specialized units to use this weapon properly, worked against the wider employment of the rifle as a combat weapons.²¹

The first major technological improvement in infantry weaponry since the development of the flintlock musket-bayonet combination was the invention of the fulminate of mercury percussion cap. In 1807 Reverend Alexander Forsyth of Scotland patented use of this substance as the starter charger for the musket; permitting the detonation of primary charge by striking instead of by ignition. Only in the 1830s, however, was a practical means found to package the fulminate of mercury. The use of an enclosed copper cap containing a small amount of this material allowed for the first practical use of muskets in rainy weather since no powder was exposed to the elements. Variously invented by any number of persons, including the celebrated British gunsmith firm of Montan, Egg and Purdy, by Colonel Hawken and by Joshua Shaw, a British artist resident in Philadelphia as early as 1814, the percussion cap dramatically reduced the number of misfires and thereby improved accuracy or at least combat effectiveness. For every one thousand rounds fired, the number of misfires fell from four hundred and eleven to four and a half and the number of hits rose from an average of two hundred and twenty to three hundred and eighty-five. Adoption of the percussion cap by military services was, in spite of its clear superiority, exceedingly slow. In part this was a function of cost, the expense of converting existing weapons to the new system; in part, the traditional conservatism of ordnance bureaus and, in part,

the organizational gulf between line officers and staff weapon-experts. The United States, for example, only ordered the complete change-over to the percussion cap in 1848 and then, at a virtual snail's pace. While percussion cap was a significant improvement in the capability of the smoothbore musket it did not, however, solve the major problems of limited range and accuracy.²²

The key to any successful improvement in the rifle lay in the development of a practical cylindro-conical or oblong bullet, to overcome the problem of slow loading time for this weapon. Various experimenters, both military and civilian, labored on a solution. The ideal form of such a new rifle would have been a breechloader, provided that some form of effective sealer could be applied to the breech to prevent escape of propellant gasses. Only Prussia aggressively moved to develop a breechloader as its primary service weapon. The famed Prussian needlegun, perfected in the 1840s but only issued to line troops in 1851 for security reasons, was the first massed-produced military rifle. The weapon, however, was far too heavy as was its projectile, which due to a vastly higher rate of fire, created severe problems, for the first time, of ammunition supply. Nonetheless, the needlegun possessed an excellent effective range of eight hundred yards and like all breech loaders, and quite unlike the smoothbore musket, could be reloaded from the prone position.²³ The United States Army

flirted with the use of the Halls rifle and carbine for some forty years prior to the Civil War. Despite the weapon's clear superiority in official ordnance tests and the enthusiasm of most line officers who came into contact with the Halls weapons, the Ordnance Bureau steadfastly refused to authorize large scale production of this firearm.²⁴ Two principal objections were marshaled by traditional ordnance experts against the breechloaders; first was the issue of whether such a weapon could bear up in the field, in the hands of poorly educated soldiers. It was feared that, "No breach-loading weapon can stand the wear and tear of a campaign, and the careless and awkward usage of the soldier."²⁵

The second objection was drawn from tradition and the use of the flintlock musket for the previous one hundred and fifty years:

If by breach-loading... it was possible to fire ten or twenty times a minute, the result would be a great increase in noise and smoke, with no more effect [than a smoothbore musket].²⁶

The combination of military and fiscal conservatism forced most inventors to follow the so-called French-Belgium solution: using the existing format of the musket to make a better rifle. The culmination of these labors was the inaccurately labeled Minie "ball" rifle. The technological breakthrough of Captain Claude Etienne Minie, of the French Army, was the use of a pillar in the breech of a muzzle loading rifle. This device was driven by the force of the

detonation of the percussion cap into the base of the bullet so that it would cause the latter to expand into the grooves of the rifling. In turn a cup was placed at the base of the bullet which the pillar struck; it was this cup, in conjunction with the discharge of gas from the powder explosion, instead of the earlier method of ramming, which forced the projectile into the rifle grooves. The United States Ordnance Bureau quickly devised a superior version of the new Minie-bullet. The improved projectile used a steel stem or lige, attached to the base of the bullet, which worked "as a wedge to spread out the ball" and thereby causing it to assume the shape of the rifling when fired.²⁷ The key advantage was a greater conformity of bullet to rifling and a corresponding reduction in the loss of propellant gas. The effectiveness of these new weapons was astonishing. Clearly, as Captain Emric Szabad pointed out, "the new firearms present...a most formidable apparatus of destruction, both from their precision and wide range...."²⁸ Effective range mushroomed from sixty or one hundred yards to eight hundred or more; reasonably skilled shooters were assured good accuracy with some models up to thirteen hundred yards. Furthermore, the use of pre-packaged paper cartridges (to be replaced in only fifteen years by the modern projectile-propellant enclosed bullet) served to increase the speed of reloading the weapon. Therefore, as

many as twelve rounds could be fired a minute. And it could be used under almost all weather conditions.²⁹

The basic tactics of battle, as practiced by armies on both sides of the Atlantic, in the years prior to the Civil War, as succinctly described by General Henry Halleck in 1861 were based on the technological limitations of smooth-bore weaponry.

The attack is first opened by a cannonade, light troops are sent forward to annoy the infantry, and if possible, to pick off his artillerists. The main body then advances into lines ((i.e., deployment from column to linear formation)); the first displays itself in line as it arrives nearly within range of grapeshot ((about 200 yards)); the second line remains in columns of attack formed in battalions by division at a distance from the first sufficient to be beyond the reach of the enemy's musketry, but near enough to support the first line or cover it if driven back. The artillery, in the meantime, concentrates its fire on some weak point to open a way for the reserve which rushes into the opening and takes the enemy in the flanks and rear. The cavalry charges at the opportune moment on the flank of the enemy's columns or penetrates an opening in his line, and cutting to pieces his staggered troops, forces them into retreat, and completes the victory. During this time the whole line of the enemy should be kept occupied as to prevent fresh troops from being concentrated on the threatened point.³⁰

The impact of the Minie-bullet rifle and its progeny on conventional, post-Napoleonic tactics was in time to be devastating and even world shattering. Over a century of carefully thought-out military theory and hard-earned experience was effectively rendered obsolete. Shock tactics, relying on cold steel, no longer made sense. Formerly, infantry could safely approach to within one

hundred and fifty yards of an enemy's line before coming under effective fire from their adversaries. Smoothbore cannon, particularly of the horse artillery variety, could no longer gallop up to within three hundred yards of opposing infantry and provide direct fire support in relative safety. Their gunners now would be easily picked off by ordinary soldiers armed with the new rifles long before their pieces could be unlimbered, let alone brought into action. Moreover, even medium and heavy smoothbore cannon, with effective ranges of no more than eight hundred yards, were well within the range of trained snipers armed with the new rifles. Cavalry charges were rendered virtually useless. Infantry fire, from entrenched field positions, would annihilate mounted units long before they could successfully close with their adversaries. While such difficult and harrowing facts were to be stumbled upon in time by the military services of the United States and Europe, the awesome reality of just what the new rifle could in fact achieve was, in the 1850s, largely understood only by a handful of ordnance officers. One such officer, Captain Camdus Wilcox of the United States Army, in 1859 described the startling effectiveness of the new rifles:

In service use of the improved rifle it may be confidently asserted that battles will be more destructive than formerly, a greater number of balls will take effect, it will be difficult for the soldier to find himself in the presence of the enemy, and... [resulting] fire beyond the range of his present piece.³¹

Formerly, the position of the enemy could be approached to within 300 yards without experiencing much loss from the fire of the infantry. Now this fire is destructive at 1000 or 1200 yards, and well directed at 600 yards becomes irresistible. The range of the rifle, permitting battles to commence at considerable distances without great care on the part of the general, his whole line may become exposed at once to a destructive fire, the position assigned to troops not immediately engaged will require as much attention as those that are engaged.³²

Insofar as the cavalry was concerned, the effect would be to foreclose the effectiveness of shock tactics:

Formerly, cavalry could take as its position in columns of squadrons in full view of the infantry to be charged, at a distance of 40 yards, and could approach within 300 yards without experiencing much loss. At this distance it moved against ((the)) infantry, first at a trot, then gallop, and finally at full speed.... Even with the smoothbore musket, the cavalry charge against infantry, to be made with a probability of success, had to be in general proceeded by the fire of artillery; or the infantry must have been already exhausted or demoralized from its contest with other arms.... Under the existing conditions of the infantry armament, cavalry will be within its sphere of action at 1200 or more yards, and as it approaches nearer, the fire will become more and more destructive.³³

The foundation of Captain Wilcox's conclusion was a series of ordnance tests, first undertaken in Great Britain and later duplicated by every leading power, including the United States, with the new infantry arms. The 1855 and 1856 Hythe trials were conducted with the new English Enfield rifled musket, with which, according to Captain Sazaband, "a tolerably good rifleman will now fire with effect at 600... ((to)) 800 yards."³⁴ The 1855 test pitted twenty-seven infantrymen against a theoretical infantry

column, firing of the guns being carried out at five hundred and fifty yards (or the tail of the column) and at two hundred and twenty yards (the head). Within four minutes the infantrymen had succeeded in decimating their imaginary foes under fairly realistic battle conditions. And in 1856 a similar test was conducted against a theoretical artillery battery at a distance of eight hundred and ten yards, resulting in complete destruction of the unit in only three minutes. These tests were clearly devastating in their results on the effectiveness of conventional tactics. They were also either ignored or even incomprehensible to most military leaders. Firing at targets was one thing; firing at real adversaries, capable of returning fire was another. Moreover, there were significant problems of perception as regards the meaning of the term "firepower". The criticism of the breechloader, regardless of whether it was capable of being fired ten or twenty times that of a musket, stated above, was characteristic of most military thinking of this period. The comprehension of officers as to the effect of concentrated fire was expressed usually as the weight of the volley or the number of projectiles discharged. What was absent was any real understanding of the effect of multiplying the rate of discharge and thus creating zones of fire. Precisely the same lack of comprehension blocked the later adoption of the machine gun, in large numbers, prior to World War I.³⁵

The great master of the French-Austrian school of War, Baron de Jomini, initially examined the weaponry with trepidation, as to the potentially grave consequences on the process of military science in civilizing warfare:

The means of destruction are approaching the perfection with frightful rapidity. The Congreve rockets...the shrapnel howitzers, which can throw a stream of canister as far as the range of a bullet, will multiply the chances of destruction, as though the hecatombs of Eylau, Borodino, Leipzig, and Waterloo were not sufficient to decimate the European races.³⁶

In its first, limited employment in the Crimean War of 1856, the Minie-bullet rifle's impact was largely negligible. And in the 1859 War of Italian Unification, the French trounced the Austrians with the bayonet, instead of exploiting the capabilities of their new rifles. Jomini, along with most other officers, concluded that there would in fact be no telling affect on battle as a result of the new weapons:

The improvements in firearms will not introduce any important change in the manner of taking troops into battle, but that it would be useful to introduce into tactics of infantry the formation of columns by companies, and to have a numerous body of good riflemen or skirmishers, and to exercise the troops considerably in firing.³⁷

Thus there would be little direct affect on tactics by the Minie-bullet rifle, save for a slight increase in the importance of sniper fire. The formal response of the United States Army to the Minie-bullet rifle was the issuance of a new manual of infantry tactics. Major William Hardee, at the direction of Secretary of War Davis, under-

took a limited revision of General Scott's translation of the official 1836 French manual of infantry tactics. The changes introduced by Hardee were relatively minor. Of note were the introduction of two new commands for the movement of infantry; the double quick time (ninety steps per minute) and the run (120 steps per minute). The greater exertions required for these evolutions earned Hardee's tactics the sarcastic label of a "Shanghai fire drill" from both officers and soldiers.³⁸ In part, the lack of substantial change in infantry tactics was due to the problem of controlling troops in battle. In the heat of combat and the general din of war, auditory signal devices such as drums and bugles were largely useless. Alternative methods such as runners, flags or heliographs were equally unsuccessful.³⁹ Thus, prior to the development of the radio, small unit tactics as practiced today were highly impractical; troops command was still premised on the Frederickian concept of soldiers as mercenary robots. Loss of control over individual units, it was thus feared, would result in wholesale desertion while under fire.⁴⁰

On a deeper level than the mere technical aspects of infantry tactics, were the powerful restraints of tradition and experience of aristocratically oriented armies. Thus Jomini, with complete confidence, could conclude that in the end, regardless of the greater lethality of the Minie-

bullet rifle, orthodoxy would prevail, as before, on the battlefield:

In spite of the improvements of firearms, two armies in battle will not pass the day in firing at each other from a distance; it will always be necessary for one of them to advance to the attack of the other.

That victory may with much certainty be expected by the party taking the offense when the general in command possesses the talent of taking his troops into action in good order and of boldly attacking the enemy, adopting the spirit and quality of troops...to his own character.⁴¹

Fundamentally, therefore, understanding of just how potent the impact of the new rifle could be on orthodox tactics was lacking among most officers of this period. Simply put, it meant comprehending the fact that the new weapon had more than twice the rate of fire of the old one, with at least six times the effective range, which could be used in all weather conditions and was machine built, at very little expense and in vastly greater numbers than its predecessor. Granted that the actual range at which most soldiers could be reasonably expected to aim and hit a target was about two to four hundred yards, yet the very fact that a common infantryman could now actually pinpoint his fire at such a range was still a great change from the old smoothbore musket.⁴² An even greater problem of perception for traditional military leaders involved the concept of firepower, of the effect of the rapid discharge of many weapons in a confined space. Thus, for example, the quite typical assessment of Dutch cavalry officer J. Roemer,

a traditionalist in the field of mounted warfare doctrine, of the general lack of impact of the new rifles on battle tactics:

Infantry must...depend wholly on its fire, it has time to deliver only two volleys and these with largely the power to cripple every sixth horse. Experience shows that the effect of musketry is very trifling at more than three hundred yards and within this distance it is not prudent to try more than two discharges ((i.e., before the cavalry descended upon the infantry's position.⁴³

As late as 1868, after making a thorough study of the American Civil War, Lieutenant-Colonel George T. Denison, of the Canadian Army and one of the most progressive and reform-minded cavalry officers of his day, could just as easily misgauge the impact of the rifled musket on mounted tactics:

From 800 to 400 yards cavalry can advance at the trot in about one minute and a quarter. In that time some six or seven shots may be fired, but practically with no effect, the rapidly changing distances, the difficulties of guessing the proper elevation to strike a moving body, the necessity of having the sights accurate, will do away with much danger from these shots. From 400 to 100 yards--300 yards at a gallop will take half a minute, two shots can be fired in this time, leaving one for the last hundred yards, which can be run over in ten seconds.⁴⁴

The problem with these calculations is that they lacked understanding of the impact of volume of fire. A single rank formation of a cavalry company covered some three hundred yards. For two minutes or so it could be expected to be under concentrated infantry fire, from say an infantry company. Assuming a reasonable rate of fire of six rounds

per minute, a total as high as twelve hundred projectiles would be placed into those three hundred yards occupied by two hundred men and an equal number of horses. In turn, a bullet, when fired, travels at a speed of between eight hundred and five thousand feet per second, far faster than any horse. The resulting zone of fire would be such as to destroy the cavalry company or at least render it hors du combat. Moreover, the infantry would be deployed in the protective square formation or, as was increasingly the fashion, entrenched or positioned between defensive cover, further reducing the cavalry's potential effectiveness.

Aside from the lack of understanding of the effect of tremendously increased firepower, there were other intellectual problems associated with the adaptation by Nineteenth Century armies to these new weapons. Take for example the deceptively simple problem of how to train a soldier to "aim" his weapon. The basic pattern of using small arms of military purposes had been by volley. With an attached bayonet it was simply not possible to line the barrel of the piece with a desired target. Secondly, the very limited range of the smoothbore musket ruled out the use of long range fire. Finally, the paramount emphasis in infantry tactics on shock and the use of cold steel, reduced engagement of foot soldiers to short range, hand-to-hand engagements. Targeting a firearm was a matter left to the sportsmen and the hunter; many European light infantry

units, in fact, were, as in the case of German jaegers, former woodsmen recruited for their superior marksmanship. Soldiers were almost never given any instruction in how to direct their fire accurately. Since the infantry fire had been, for several centuries (at least as far back as the Fifteenth Century and the decline of the crossbow) equivalent to the scatterlike fire of a shotgun, there were thus no immediate historical examples of mass aiming of weapons to be drawn upon. Notice the repeated assertions of the authors above that the greater speed of fire would be negated by the inability of the soldier quickly to aim his weapon. Putting aside the issue of volume of fire, it is instructive to understand how a weapon was aimed in this period. Target weapons featured elaborate sighting systems while hunting firearms relied upon the experience of the shooter. Basically, one selected a target, determined range and speed of movement, if applicable, and then carefully sighted and fired. Such methods were necessarily too complex and too slow for use in combat, save by highly specialized soldiers. Only gradually would armies begin to master the techniques by which groups of soldiers could speedily identify and hit targets. The modern system of combat aiming began to be experimented with in the 1860s. Essentially the rifle is treated as an extension of the person, it is thus pointed at the center of the desired targets and the weapon leveled so the bullet will strike

about six feet above ground. In effect, therefore, the soldier shoots as if he were making a bayonet thrust. Though some difficulties as directed-firing by troops in battle seemed insurmountable, rendering the superior range of the new rifles useless, a few ballistic experts were already attempting to solve the problem. According to Captain Wilcox, the future promised a revolution in how a common soldier would manipulate his weapon in combat--the shift from volley and bayonet to firepower and controlled shooting:

He will be inspired with more confidence knowing the range and accuracy of his arms. At great distances he will no longer fire by hazard, but will use his elevating ((i.e., aiming)), at short distances, knowing the power of his rifle, he will fire with the utmost coolness, and with a certainty the smoothbore and round ball could never inspire.⁴⁵

The Industrial Revolution was, in addition to profound changes in technology, causing as well, considerable alterations in the composition and orientation of civil society that was to affect greatly the conduct of war. The Minie-bullet rifle was not simply a matter of improved hardware. As the question of aiming shows quite clearly, an intellectual as well as a social revolution in military science and organization was needed to exploit fully the possibilities of the new arms technology. Guilbert, in the 1760s pioneered the column as the solution of the complexities and failings of Eighteenth Century linear tactics. The intellectual breakthrough and in unison as opposed to the

earlier method of starting each movement from a fixed point and defining it as an end-to-itself. It was only until the French Revolution and the immediate need to convert untrained citizens into soldiers that Guilbert's concepts could finally be exploited to the fullest and in turn, under Napoleon, destroying the fundamental Eighteenth Century maxim that one army could not destroy another.

Similarly, the basic revision in the science of war made possible by the Minie-bullet rifle was one which required a massive redefinition of military theory and organization, which transcended such relatively mundane matters as increased range or firepower. Rather it offered the immediate end to the Frederickian tradition of soldiers as mere robots. The weapon required the use of loose-skirmish-order tactics in place of tight, disciplined formations. Neither exposed linear or column formations, designed to accommodate traditional volley fire and the bayonet charge, were practical against the fire of the Minie-bullet rifle. Even with such modifications as those developed by Hardee to conventional infantry tactics, of increasing the speed of movement, there was simply no way to close with an adversary without suffering massive casualties from his fire. To disperse men on the battlefield, however, demanded considerably more than simple tinkering with the infantry manuals. As shown by the French Revolution, effective soldiers could be trained in Guilbertian tactics

in about eight weeks; the Minie-bullet rifle, in turn, further speeded up training time.

The emergence of large middle class, urban populations and the development of national political culture on both sides of the Atlantic was as well rendering the principles of limited warfare anachronistic. The idea of war fought for limited gain by competitive princes, with small professional mercenary forces was increasingly out of line with mid-Nineteenth Century society; the Crimean War, for example, with popular involvement in the war effort by ordinary citizens and coverage in the newspapers was a portent of still greater change. The new style of tactics would require a willingness to trust the initiative of individual soldiers. Men would thus have to be led, not driven into battle, and non-commissioned officers would have to be redefined from brutal task masters to team leaders. The armies of the trans-Atlantic military community, save for Prussia, however, continued to plan and wage war as it had been done for the previous one hundred and fifty years.⁴⁶

Part III

The 1850s were in the United States, as well as in Europe, an era in which change in the military arts was beginning to be officially analyzed. Two major technological advancements, steam powered ships and the new rifled naval artillery threatened at once to sweep aside the twin

pillars of the Calhoun-national war policy. For the previous forty years the basic war-planning assumption of the Army had been that a minimum of three months was necessary for a European power to transport and deploy an initial invasion force; that in turn, sail powered ships could not support a force much larger than fifty thousand men for any extended period of time; and that the nation's masonry seacoast fortresses could withstand naval bombardment long enough for reinforcements to arrive. Thus, the army would have sufficient time to enlarge its forces and in turn be ready to meet a European invader. By the 1850s, none of these assumptions were valid. Steam powered ships could carry tens of thousands of men in a matter of weeks to America's shores and in turn, effectively supply them. The naval rifled cannon rendered America's coastal fortresses useless; they could now be demolished in a matter of hours, as opposed to weeks in the past. And the army was now saddled with a vastly greater country to defend, in regards to total area, including the two sea coasts.

In order to bring American military doctrine and practices in line with the latest breakthroughs in the science of war, Secretary of War Davis, in 1856, arranged for a military commission to undertake a grand inspection of the leading armies of the day. Moreover, the then on-going Crimean War offered a splendid chance to view the new hardware and doctrines of war in operation and in turn,

allow the army to gather invaluable field data on the fighting capabilities of potential enemies. The officers selected for this Commission were Majors Richard Delafield and Albert Mordecai and Captain George Brinton McClellan.⁴⁷ The first two officers were noted experts in their respected areas of military science (Delafield, fortifications; Mordecai, artillery), both were senior West Point professors and in their fifties. The third member of the Commission, Captain McClellan, was the representative of the mounted arm, a line officer with the First Cavalry (although his corps affiliation was with the Engineers) and barely thirty. McClellan was by no means an elder and accomplished officer in his supposed area of specialization; in fact, he had been in the saddle, as it were, for less than a year. Rather this plum was awarded to him as recognition that he was one of the most promising and gifted young officers in the Army.⁴⁸ The composition of the Commission reflected the War Department's concern that rifled artillery had rendered the nation's seacoast defense system ineffective. Delafield and Mordecai had strong engineering backgrounds, equipping them to understand collateral military advances such as steam-powered ships. The assignment of a would-be cavalry officer to the Commission reflected Davis's personal bias toward the cavalry. The absence of any representative of the King of Battle, the infantry, was characteristic of the general lack

of interest or understanding of the Minnie bullet's considerable impact on orthodox tactics.⁴⁹

The Commission toured the principal Crimean battlefields, although most of the fighting was over by the time they landed in Russia. The Crimean War had been largely traditional in the military technology used by both sides and even more so in the tactics. Most innovations that were tried out in this war--rifled naval artillery and steam powered ships (the Minnie-bullet rifle was in limited use with French and British troops, who, however, continued to employ traditional tactics) among others--had little direct bearing on the battlefield as such. Yet the crippling failures of logistics of the British Army demonstrated the need for greater improvements in military organization and logistics.⁵⁰ The military theorists of the day, while noting the interesting new developments in the tools of war, generally defined the Crimean War as unrepresentative of future wars. Jomini expressed this position quite aptly when he wrote:

This...contest between two vast entrenched camps, occupied by entire armies...is an event without precedent, which will have no equal in the future, for the circumstances which produced it cannot occur again. Moreover, this contest cannot influence in any respect the great combinations of war, or even the tactics of battle.⁵¹

Yet the Crimean War did, as one of the last, traditional examples of Eighteenth Century war, herald the beginnings of a significant alteration in the nature of war

occasioned by the first arms race in history and by the effects of social and political change on the conduct of war.⁵²

Cooperation with the French and Russian military services was difficult, but the British amicably welcomed the Americans. The return to the United States was routed through the leading European states. Thus the trio of American officers was able to scrutinize the military establishments of France, Great Britain, Austria-Hungary and Prussia, centering much of their attention on depots and fortresses. The reports that were subsequently published of their observations were of mixed quality. Delafield's Report on the Art of War in Europe and Mordecai's Military Commission to Europe were objective and professional in nature.⁵³ Delafield concentrated on his area of specialty, fortifications, while Mordecai emphasized the latest advances in artillery and other aspects of military hardware; both authors, as well, provided illuminating intelligence on virtually every other important aspect of military science and the capabilities of the leading European armies.

In striking contrast to the reports of the two senior members of the Commission, McClellan's European Cavalry and The Armies of Europe (both of which were privately published and distributed far more widely than either of the two government-produced reports) were flaccid and exceedingly indiscriminating. What was clearly absent from McClellan's

official reports were practical and comprehensive assessments of the military effectiveness of the various cavalry services of Europe. Moreover, McClellan made little effort to evaluate the combat worth of cavalry in the Crimean War; certainly the infamous charge of the British Light Brigade merited considerable inquiry as to the future prospects of horse soldiers in battle. One can learn from McClellan all kinds of quaint but largely useless trivia such as the types of drums used in the Prussian Army or even the relative merits of Sardinian wooden water caskets. Yet nowhere did the young Captain attempt to evaluate or analyze his data; rather McClellan was apparently content simply to report, without investigation or inquiry. The British Cavalry, for example, widely rated as the worst of any major power by the leading cavalry theorists of the day, was cheerfully presented in terms of its formal order of battle without a whiff of criticism by McClellan. One of the positive gains for the United States Cavalry service was the adoption of the Hungarian saddle (albeit that the original horsehair cover, due to the extreme discomfort it caused, was replaced by one of tanned leather); McClellan, in describing this key piece of cavalry equipment, however, did not lay out a process of evaluation from which the reader could trace out and comprehend how he arrived at the merits of his conclusions. The reason for McClellan's lack of analysis stemmed from the fact that, unlike either Delafield or Mordecai, he

was not an experienced student of his assigned area of the art of war. In fact, McClellan's understanding of cavalry theory was superficial at best. Analyzing European cavalry theory and practice on the basis of official tables of organization and elite demonstration units was for McClellan, the representative of a second rate power, akin to letting loose a very studious child in a marvelous store of infinite wonders, all very pretty and overwhelming in their splendor.⁵⁴

As an official observer of the major European cavalry services, McClellan was to exert considerable influence on the development of the American cavalry in the late Antebellum years. Yet McClellan, despite the adoption of a new saddle and helping to pave the way for the formal adoption of the new single-rank mounted tactics, was thoroughly traditional in his analysis of cavalry. The image of a young, overly enthusiastic junior cavalry officer, in effect a novice journeying as part of a distinguished United States Military Commission to study at the feet of the masters as it were, is well supported by McClellan's fanciful and utterly impractical notion of transforming Plains Indians into Cossacks:

It is impossible to repress the conviction that in many of the tribes of our frontier Indians, such as the Delaware, Kickapoos & c., we possess the material for the formation of partisan troops fully equal to the Cossacks, in the event of a serious war on this continent, their employment, under the regulations and restrictions necessary to restrain their tendency to un-

necessary cruelty, would be productive of most important advantage.⁵⁵

Far more biting was McClellan's assessment of the types of mounted units then in Army service and in turn, what improvements were necessary. Echoing Davis's argument for general-purpose cavalry, McClellan listed all the conceivable and probable types of wars in which American mounted units would be needed. The classifications of armed conflict which McClellan entertained in his report were the same essential types which had been the focus of national war policy since Calhoun's tenure as Secretary of War. What was not at all likely, McClellan concluded, was a full-scale, unrestrained and nationalistic struggle, of the Napoleonic variety, which of course had, as a consequence of the Congress of Vienna in 1815 and the emergence of scientific concepts of war, been exercised from the lexicon of armed hostilities. Thus three possible uses of cavalry for three types of potential wars were enumerated by McClellan:

- a. use against the Indians;
- b. to repel foreign invaders [which due to the limited capacity of mid-19th Century ships, would be woefully short of cavalry;
- c. an offensive war involving limited use of cavalry [as in Mexico].⁵⁶

Thus:

It could therefore, seem that heavy cavalry would be worse than useless for our purposes, and that we need only light cavalry, in the true and strict sense of the term.

Since the primary purpose of such cavalry would be frontier security (the East, as per traditional doctrine,

was supposedly unfit for conventional mounted units), McClellan argued that:

The tactical unit should be small, that it may be handled with the greatest possible ease and celerity, and that it may never be broken up. The regiment, also, should be small, for the same reasons.

It followed therefore, that:

The nature of cavalry service in the United States being quite different from that performed by any in Europe, we ought not to follow blindly any one system, but should endeavor to select the good features, and engraft them upon a system of our own.⁵⁷

Superficially, McClellan appeared to have addressed many of the concerns of frontier officers as to the need to maintain unit integrity as well as authoring a uniquely American form of mounted warfare. McClellan, however, most certainly did not desire to cut loose American cavalry practices from its theoretical umbilical cord to European traditions and doctrines of mounted warfare. Thus, as in accordance with classical cavalry theory, McClellan wrote: "the firearms...", of a mounted formation, "...used solely on guard, vedette, & c., to give the alarm, it being taken as a maxim to trust the saber." Furthermore, "against the Indians of our plains, who have no sabers, the far reaching lance would be no doubt an effective weapon; yet a light saber would be about as much so, and far less in the war."⁵⁸ Thus, in the grand tradition of mounted warfare, the strength of the cavalry is always in its "spurs and sabers."⁵⁹ What McClellan, who had no experience at all in

Indian fighting, intended was not the creation of a unique American style of cavalry adapted to the requirements of the Great Plains. Rather he was clearly in the long tradition of professional officers, dating back to the efforts to turn the First Dragoons into a proper European-like mounted unit, who were dedicated to the classical tradition of horse soldiering. Thus the desire to prepare the cavalry to fight a "real" war with a European adversary. The adoption of such useless European practices as the lance or saber, as argued for by McClellan, demonstrated his lack of comprehension of the practical requirements of Indian fighting.

The professional American Army approached the irksome task of Indian control as a non-military activity, of little honor, as the price for its dedications to the European-style of war. None of the official Army manuals, cavalry or otherwise, up to the 1850s, had made the slightest reference to the unique tactical problems of Indian fighting. Rather the Army chose to leave such problems to the discretion of individual field commanders. For example, General Dabney Maury, recalled in the 1890s, that in the late 1850s, as a consequence of frontier fighting and McClellan's examination of contemporary cavalry doctrine, a new system of tactics was introduced which:

...would enable men to dismount quickly and use their rifles [Sharps carbines] on foot and demanded also single rank formations. By this new system of tactics, a troops... could be moving at the gallop, and when the trumpet sounded, 'Dismount to fight', could halt, link their horses,

and be handling their rifles in line of battle...
[within] seconds.⁶⁰

While startlingly similar to later, innovative Union cavalry practice, Maury's statement is unsupported by any cavalry manual in use in the United States before or during the Civil War. Moreover, in its use of decidedly nonstandard cavalry tactics, it represented a clear departure from McClellan's emphasis upon orthodoxy in mounted warfare practice. Either Maury was reading later events back into his history (he was a Southern cavalry commander) or (more likely was referring to the growing emphasis on musketry in this period--confusing the traditional mounted warfare manuals with the seat-of-the-pants, ad hoc cavalry practice of frontier commanders.⁶¹ Only Major-General Philip Cooke, one of America's pre-eminent cavalry experts made a specific reference to Western military conditions in his own, official manual of cavalry tactics. Yet Cooke wrote nothing more than such common sense advice as the need for greater camp security; there is no mention or even hint of a detailed and unique body of frontier mounted warfare principles.⁶² McClellan clearly suggested in his official recommendations that most American frontier cavalrymen did not define themselves as true horse soldiers or considered that their grubby work constituted true mounted warfare. Fundamentally they were little more than mounted gendarmes forced to do the dirty work of Indian control. The professional Army, the one dedicated to fighting an invading

European army in the classical manner of the French-Austrian school of war, paid scant attention to the unique requirements of frontier security duty. Only one American officer, an anonymous Captain of infantry, actually formulated a unique system of war to deal with the elusive and extraordinarily mobile Plains Indians in the Antebellum era. Unerringly, this author rejected the use of classical European tactics as being inappropriate as well as ineffectual:

It [the Army] was...warfare in a country of resources and of comparatively contracted space, and for operations against forts, fieldwork, lines of men, communication or supply, or something that was accessible [which] could be found and seen.⁶³

The formal tradition of post-Napoleonic warfare was unsuited to the demands of the frontier security according to the Captain:

This condition is changed; and so the system. The change consists in the field of operations, its extent, resources and people. It is almost the entire country, washed by the waters of the Rocky Mountains...destitute of resources, its people...without permanent habitation, independent of agriculture, good hunters and horsemen and, with few exceptions, hostile.⁶⁴

The failure of the Army to undertake a complete reorientation of its tactics to meet the unique problems of the far West, lay in the military's unshakable commitment to European style warfare, according to this Captain:

Those having the power are looking across the Atlantic to France, waiting to adapt her practice in similar exigencies, while our officers are at least the equals of the French officers, and our men superior. Our line officers, have no voice,

they bear these evils and exercise the same quiet stoicism under existing deficiencies which they tolerate, the incubus, the man who shuns his duty or throws it on his superior, and with which they endure their life-long exile, and we have the material to make, as good light cavalry and infantry as any in the world. France felt a similar need in Algeria and she has her chasseurs d'Afrique and spahia....⁶⁵

It is time we acted upon our necessities. Europe comes to us for pistols and rifles, and we take back the latter, altered but not improved.⁶⁶

The assessment offered by this Captain of the limitations of the French-Austrian school of war carried no weight in official circles. Nonetheless, this officer brilliantly identified and criticized the futility of applying orthodox, European concepts of war to the American frontier. Unlike McClellan's romantic, and rather simplistic call for traditional light cavalry and for the conversion of the Plains Indians into Cossacks, this Captain's remarks were directly attuned to the actual difficulties of frontier security duty. Moreover, unlike the direct importation of French Algerian practice in unconventional warfare, as embodied in Davis's great desert Indian control plan, this Captain's concepts reflected, instead, the very originality of Marshal Bugeaud in developing unorthodox tactics uniquely suited to North African conditions. Thus, the development of Indian fighting tactics uniquely designed for the Far West. Specifically, therefore, "the inadequacy and unfitness of present organization...such as the injustice to heavy cavalry [i.e., the Dragoons] and infantry of employing

them to subdue a nation of mounted spies who have no home and leave no trace."⁶⁷ The correct, and pointedly unorthodox method of solving the prickly problem of dealing with an exceedingly mobile and fleeting adversary as the Plains Indians, was set forth by the Captain when he wrote:

To control these people or making a step towards doing so, it is proposed to do what has often been done before with a people to be conquered: take a lesson from them. Assimilate and equalize the two by giving to the soldier the horse, arms and dress of a hunter, the wont of which prevents his efficiency, without giving up the present organization for attacks and self support groups of fours [i.e., a kind of early fire team system adopted by some Western commanders].⁶⁸

The tactics which were in turn devised by this Captain constituted what could be defined as the nucleus of modern counterinsurgency tactics. The emphasis was on the use of small units, not dissimilar from today's LRPs (long range reconnaissance patrols) teams combined with the speed and endurance of the Indian dog soldiers. Specifically, he advocated the creation of a special, commando-like corps combining light infantry and light cavalry (but distinctly not of the usual European variety)--the former to deal with the Indians in mountainous terrain, the latter for pursuit on the Plains. The proposed armament would be principally breechloading carbines and revolvers plus sabers if required for close-quarter work.⁶⁹ The record, both before and after the Civil War, however, reveals no instance of such strikingly original tactics being employed by the Army. Thus

frontier commanders continued, as in the past, to make do with the existing, very ill-suited resources at their disposal in handling frontier security problems.

In the main, during the years immediately prior to the Civil War, the official, professional Army rededicated itself to its essential mission, the defense of the United States against foreign tyranny with the doctrines, weapons and equipment of the French-Austrian school of war and of contemporary France. The advent of radical technological, economic and social change was little understood and little exploited in the final years of the Antebellum era. In 1861 the United States Army would find itself fighting a mass, industrial and nationalistic war of survival. This was clearly not the kind of war predicted by either the strategists of the French-Austrian school of war or by McClellan in his official report. The United States had greatly changed since Calhoun's tenure as Secretary of War. What had been a minor power, perilously perched on the outer fringes of European civilization was now a continental size nation, a growing commercial power, increasingly urban in its social make-up.

The Calhoun war policy lay in ruins by the mid-1850s; casemate seacoast fortresses and the concept of the skeleton army were rendered obsolete by the development of steam powered ships, by the great improvements in naval artillery and by the considerable westward expansion of the country.

Yet the very French-Austrian school of war was already obsolete before its first theorists attempted to set its ideas down on paper. Only Prussia and General Clausewitz had fully understood that the Napoleonic Wars were truly the portent of future nationalistic tussles between warring peoples, dominated by ideology and by industry and technology. The Guilbertian tactical revolution demolished the cardinal military tenet of Eighteenth Century limited war doctrine, namely that one army could not move with sufficient dispatch to encircle and destroy another. It had as well made the need for a Frederickian, robot-like army of mercenaries obsolete as well. In turn, the Minie-bullet rifle, the culmination of the gradual shift toward firepower as dominating the battlefield since the end of the Seventeenth Century, rendered not only the formal tactical systems obsolete but also the principles of command and leadership. And it launched the armies of the trans-Atlantic military community on to the first arms race; weapons would be redefined and improved not every couple of hundred of years or more as in the past, but now every fifteen or less. However, to the vast majority of military officers and theorists, until World War I, the full impact of such radical change was at best, ill-understood and in the main ignored.

POSTSCRIPT

The Antebellum frontier experiences of the American cavalry had no direct effect upon the development of mounted warfare practice during the Civil War. Both Confederate and Union horse soldiers gradually adapted to the dense woodland terrain of the Eastern United States, through the use of dismounted tactics. Yet, the charges and the arme blanche continued to dominate formal Confederate and Union cavalry practice until 1864. The southerners achieved more success initially due to the simple fact that Confederate military commanders had to use their mounted volunteers due to the initial absence of any military organization. The North, however, blessed (or more aptly, cursed) with the existing Antebellum army organization dutifully, according to European cavalry doctrine, blocked the formation of state horse units. Only political pressure and the demands of field commanders for cavalry caused the military's senior leadership to begrudgingly accept such troops.

The initial Southern superiority in the large scale use of cavalry stemmed directly from support from senior Confederate commanders for their horse soldiers. Thus, Confederate cavalry performed better in the field due to

retaining their organization integrity (Union regiments, in contrast, were broken up and scattered among various larger units) and better leadership. Confederate Captain John N. Opie expressed very well the initial low opinion held by both southern and northern military men of horse soldiers.

It was the custom of the infantry to taunt and jeer the cavalry whenever the opportunity arose. They called them, the 'Buttermilk Rangers'. If the cavalry was going forward, they all cried out, 'No fight today, the 'Buttermilk Rangers' are going to the Front'. If they were going to the rear, they shouted 'The Buttermilk Rangers' running from the yanks, lookout for a battle.⁷⁰

It was such stunts as Colonel Jeb Stuart's 1862 ride around General McClellan's Army of the Potomac during the Peninsular campaign which greatly improved the morale of Confederate cavalry. In turn, rebel horse units won a measure of support from senior Confederate generals. Yet, the South failed to develop any advances in cavalry tactics; horse soldiers were wasted on unproductive raids. Such experiences--hard charging units scoring a few quick successes--is but of little substantial military value. Only the Confederate guerilla leader, General Bedford Forrest developed a form of highly mobile mounted infantry as an alternative to orthodox cavalry tactics. The traditional lack of firepower of horse soldiers and the logistical problems of supporting a cavalry field force crippled Forrest's efforts at devising a highly mobile Confederate strike force.⁷¹

In 1864, during the wilderness campaign, General Sheridan radically altered Union military practice. Essentially his thrust toward Richmond was not a raid, rather, his sole purpose was to draw out and destroy Confederate mounted units. The real break-through in Union cavalry, came with Brevet Major-General James Harrison Wilson. Incredibly, only twenty-three years old, in December, 1864, during the Battle of Nashville, Wilson's cavalry forces, fighting both mounted and dismounted and exploiting the enormous fire power of their seven-shot Spencer carbines, played the key role in annihilating General Hood's invading army. The culmination of Union innovative cavalry tactics was Wilson's 1865 Selma expedition. Combining firepower and mobility with the simple Napoleonic logistical solution of living off the land, Wilson's cavalry army destroyed the last major industrial center of the confederacy, crushed Forrest's army and captured Selma, protected by some of the most formidable defenses of the Civil War.⁷² While there was no direct link to the Antebellum army's frontier experience, the innovations of Wilson were of the same sort as earlier army officers' ad hoc solutions to the difficulties of western and southeastern border control. Thus while the French-Austrian school of war, overall failed during the course of the Civil War, professionalism allowed for the development of innovative and dedicated officers.

FOOTNOTES

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Chapter III

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