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**UNDERSTANDING CHANGE:
SIGISMUND VON SCHLICHTING AND THE
OPERATIONAL LEVEL OF WAR**

**A Monograph
by
Lieutenant Colonel Donald Cranz
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Fort Leavenworth, Kansas**

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Sigismund von Schlichting and the Operational Level of War

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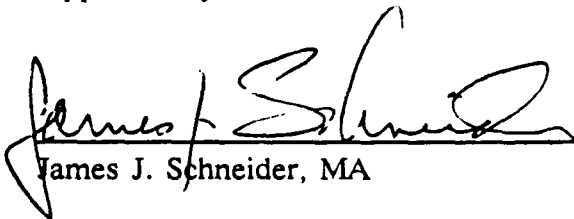
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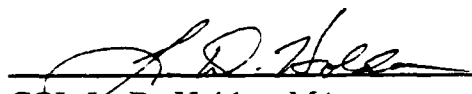
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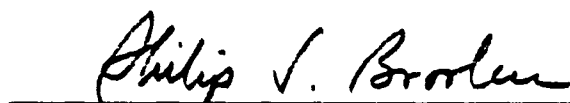
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ABSTRACT

Adapting to change is a perennial challenge for military organizations. One of the ways we can help make ourselves equal to this process is by studying the efforts of other armies as they adapted in the face of political, technical, or other kind of revolution. A particularly suitable period for study with this aim in mind is the late 19th century, when the effects of the Industrial Revolution changed completely the character and methods of warfare. In Germany, in spite of Moltke's successes in the wars against Austria and against France, there was a great deal of debate on how best to adapt. With the benefit of hindsight, we can see that Sigismund von Schlichting, who was a corps commander at the time of his retirement in 1896, had an unsurpassed appreciation for the new conditions of warfare. His upbringing and military education, which included three years of study at civilian universities rather than the usual course at the Kriegsakademie, may have freed him somewhat from the accepted military doctrines of the time. In his thought, which is expressed most systematically in his three volume work, Taktische und Strategische Grundsätze der Gegenwart (Tactical and Strategic Principles of the Present Day), we see the relationship between mass armies with more lethal weapons and the emergence of both a new form of combat leadership (which we now call Auftragstaktik) and a new form of the operational level of war. Schlichting was only partly successful in his attempt to convert the German Army to his way of thinking. He became known to the Russian, and later Soviet, General Staff however, and his influence was so strong that we can still see his ideas in current Soviet doctrine. Schlichting's concepts provide us with a perspective on the evolution of our current form of warfare and may even be helpful for understanding what armed struggle may look like in the future. His personal example is both encouraging and discouraging, since he shows, on the one hand, that it is possible to develop sound principles in spite of radical change, and, on the other, that the most correct view is by no means the one most likely to be accepted.

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I. THE PROBLEM

In a masterful lecture delivered on the occasion of his receiving the Chesney Memorial Gold Medal in 1973, Michael Howard enumerated the main reasons why adapting to change is peculiarly difficult for military organizations.¹ First, in peacetime, there is no way of knowing if an idea is right; second, the legitimate and ineluctable requirements for subordination and discipline common to all functioning military institutions militate against the emergence and organizational survival of original thinkers; and third, the demand for sheer technical competence has recently become so extreme that it tends to suppress both the desire and the ability to address larger issues of operational significance.

These great difficulties notwithstanding, adapting to change is the sine qua non of military success, as even the most cursory survey of military history from the Peloponnesian Wars to the present makes clear. Technological change tends to be much easier to quantify and to adapt to than other types of change, such as political or social change. But adapting to even

technological change is by no means easy. Clausewitz puts the problem neatly:

It is self-evident that an iron projectile accelerated to a velocity of 1000 feet per second by the explosion of black powder will smash to pieces every living thing it touches, and one does not need any experience to know that. But how many hundred other circumstances determine the effect of such projectiles more precisely, effects which can be determined only through experience! And the physical effect is indeed not the only one that we have to take into account; we are interested in the moral effects as well, and those can be determined only through experience.²

Clausewitz goes on to point out that the moral effect in particular varies dramatically not only over time, but between armies as well, a Napoleonic French Army withstood, without wavering, casualties from fire that "one simply could not believe" and still function, while certain troops of other European armies were scattered by a few cannon shots.

Thus, when trying to estimate the effect of technological change we are confronted not only with the problem of understanding the physical battlefield effects of a technological change--which ~~cannot be understood without the aid of a laboratory~~ laboratory--we must also take into account the moral effects of that change, which can be influenced by a multitude of variables, almost all of which are hard to know in advance.

It is not necessary to argue here that we live in a time of rapid technological transformation.³ In fact, so many technological changes are happening so rapidly that we tend to be driven back to an understanding analogous to Clausewitz's most simple level: we understand that a "projectile will smash to pieces every living thing it touches" (or "a Stinger will usually bring down a helicopter and often a jet"; or "a EMP will destroy most unprotected communications and data processing equipment"; and so forth). But we have great difficulty understanding what these facts should mean to us in terms of our tactical and operational doctrine, our training, and our organization. We may perhaps take solace from the fact that such a condition is the norm rather than the exception in recent military history. Howard inclines toward an extreme position: "I am tempted indeed to declare dogmatically that whatever doctrine the Armed Forces are working on now, they have got it wrong."⁴ But that in no way diminishes our responsibility as custodians of our nation's defense to attempt to master the change with which we are confronted.

In view of the well-founded pessimism of Michael Howard and others equally knowledgeable of the history of military affairs, the question is how we should go about doing this. Howard himself has two suggestions. On the one hand, and when someone

of Howard's learning says it, it is not a banality, "Still it is the task of military science in an age of peace to prevent the doctrines from being too badly wrong."⁵ In other words, we should struggle as best we can against the odds and make the very best guesses we can about the character of a future conflict. On the other, and this is a key recommendation, we carefully preserve "the speed with which we are able to adjust" once a war actually starts.*

For many reasons, Howard's double challenge is daunting, and one which our reason combined with our own immediate experience will be unequal to meeting. One source of assistance which we can use is the history of other soldiers struggling to comprehend and master technological change. With the benefit of hindsight we can see where they went wrong and where they went right. Although we must continually sharpen our awareness of how their situation is different from ours, we can also look for methodologies and attitudes that seemed to bring them closer to the realities that we can now see clearly, and attempt to turn those methodologies to our own advantage. Even more importantly, we can watch the process of change and see where it was useful and where it was destructive; we can attempt to pick out those factors which encouraged useful change, and those which impeded it. Finally, we can attempt to trace the thought

processes of those who seem to have met the challenges they faced the best, and see if there are lessons there for our own ways of thinking.⁷

The second half of the 19th century immediately suggests itself as a time period for investigation. During these fifty years the accelerating rate of technological change began to challenge the ability of military organizations to take advantage of it. Three examples drawn from the military history of just eight years, 1863-1870, illustrate the point. They also illustrate the gulf between the objective effect of a given technological change (Clausewitz's iron projectile) and its ultimate military significance.

No great expertise was necessary to understand that the railroad, first made practical in the 1830's, offered the capability to move previously unheard of tonnages at unprecedented speeds. An inkling of the military significance of this fact was provided in 1863, when the Union Army moved 23,000 replacements 1200 miles to Chattanooga in one week.⁸ Not only was the speed of this move (over 170 miles a day) more than ten times faster than anything that could have been dreamed of forty years previously--it also ended with the troops in an excellent fighting condition, a result which could not have been expected had the units been subjected to even two days of forced marches.

The Morse telegraph--also perfected in the 1830's--offered the potential of instantaneous communication over enormous distances. Both the potential and the pitfalls of this radically new capability emerged in 1866, when Moltke used the telegraph to conduct the Prussian War against Austria from locations far behind the battlefields. The extreme, often almost amusing, difficulties which Moltke encountered using this method of command should not obscure the fact that it succeeded, and that by and large von Moltke had as good a knowledge of the location and activities of his armies, spread out over two hundred miles of front, as Napoleon had at Jena-Auerstaedt, with all forces within a compass of 30 miles.⁹

The breech loading rifle produced what can only be described as a revolution in infantry warfare. As an example, the chassepot rifle, developed by a French artillery technician in his spare time, could fire eight rounds a minute and was lethal at ranges well beyond 1000 yards.¹⁰ In spite of stubborn resistance on the part of procurement officers, the French Army began equipping with the chassepot in 1866. In 1870, during the battle of Gravelotte-St. Privat, when the German Guard Corps attempted to assault nine battalions of French infantry equipped with the chassepot over a field approximately 1000 yards wide.

This assault, which by Napoleonic standards had a good chance of success, and which in 1814 would certainly have led to hand to hand combat on the position of the defenders, was stopped, with over 8000 casualties, 600 yards in front of that position.¹²

We thus see that by 1871 technological developments that potentially could lead to revolutionary change in logistics, command, and firepower were already available.¹² Commanders availed themselves of the new technological possibilities with varying degrees of success, but there were numerous soldiers who denied the significance of the changes in warfare that were before their eyes, and even among those who recognized that a new age of warfare had arrived, there was passionate disagreement as how best to take advantage of them.

This debate was lively in the Prussian (now at least nominally German) General Staff.¹³ Von Moltke's stature, both because of his victories and because of his intellect, tended to convey to the public the impression of a thoroughly unified general staff that had found eternal truth and was engaged in cultivating it for Germany's benefit. One presumes that even inside the staff itself Moltke's authority tended to limit to some extent the sharpness of the debate. But it was not Moltke's method to stifle discussion and, as he admitted and

others were quick to point out, there had been enough problems on the German side of the Franco-Prussian War to make it clear that major changes were in order.¹⁴ On the one hand, a significant number of German officers still clung to Napoleonic views of warfare, and tenaciously resisted doctrinal change. On the other hand, changed logistical realities, the problem of controlling armies larger than had ever been seen before, fighting on frontages that had previously been inconceivable, with weapons that delivered firepower of a quantity and a quality that challenged all previous concepts of battlefield maneuver, all called for a major rethinking of how wars were to be fought. Many officers thought that the Napoleonic model had clearly lost much of its utility. In the ensuing debate, two schools of thought emerged in the German General Staff.

One, which eventually triumphed under its brilliant proponent, Count Alfred von Schlieffen, held that the conduct of war was a science, and that with sufficient planning the events of a campaign could be foreseen and arranged with something like mathematical certainty. In van Oreveld's words, von Schlieffer saw a "timetable war," in which he "envisaged the destruction of France in precisely forty-two days of preplanned maneuvering."¹⁵ Schlieffen's vision had significant consequences: "Schlieffen and Moltke (the Younger) devised, and

imposed on the German army, the most rigid operational plan which had ever been accepted by any modern army.¹⁴ Not the least because of Schlieffen's intellectual tyranny, this view dominated the General Staff through at least the first stages of the First World War.¹⁵

The other school of thought took a diametrically opposite approach. Conceding that warfare was inherently chaotic, and that the revolutions in technology and political organization since Napoleon had made it even more so, the proponents of this school argued that the only possible response to the new situation was to create organizational structures and develop tactics that were flexible enough to function without rigid centralized control. Even more important, they were able to see that technology had forced a fundamental change in the character of warfare itself, and they began thinking in terms which we would today call operational. In retrospect, their views seem to make much more sense for modern warfare not only at the end of the 19th century, but for much of the 20th century as well.

The leader of this second group, General Sigismund von Schlichting, was retired "without adequate explanation in 1898, a sacrifice, as he put it, to the mechanical brains of the Army."¹⁶ But he was a diligent writer both before and after

his retirement, and his books, articles, and correspondence kept his influence alive both in the German Army and beyond it, and provide us with an excellent insight into his mode of thought.¹⁹ He was among the first to recognize clearly that the technological changes of the 19th Century had created a new form of the military art--what we now call the operational art. His biography shows us the temperament and education that make a soldier open to change; his thought gives us a clear insight in the forces which created the operational art.

Although he was the son of a commander of the Kriegsakademie, Schlichting never went there. He spent three years at the universities of Bonn and Goettingen instead. He also received his first general staff assignment very late--in his 19th year of service--and participated in Prussia's two great wars in the second half of the 19th Century as a line rather than a staff officer. In 1866 he commanded a company; in 1870-1871, a battalion. In neither case did his unit see particularly intense action. After the Franco-Prussian War, he rose very rapidly through the ranks, and commanded a corps from 1884 to 1896. In 1896 he was suddenly retired, probably because of continuing disagreements with Schlieffen.²⁰ It was in retirement that he wrote the works which today give us insight into how he thought.²¹

II. SCHLICHTING'S THOUGHT

Schlichting spent the entirety of his long career trying to come to grips with technological change and modify the doctrine and practice of the German Army in accordance with the realities of the modern battlefield. His success as a trainer and as a theoretician puts him in the front rank of German soldiers of the last half of the 19th century. We have already seen how this effort became his life's work, and how it was influenced by his experiences. An examination of how he came to his views, as he developed them in his major works, will not only give us an insight into the problems facing those who developed modern warfare, but will also show us how clarity of thought was maintained in the face of overwhelming change, and may give us clues as to the best way of mastering our own situation. At the same time, we can gain insight into the emergence of a qualitatively different form of war that ultimately became known as the operational art. It is important to realize at the outset that opposition to Schlichting's ideas came by no means from one direction only. Many of his opponents, particularly early in his career, never recognized that Napoleonic warfare, and the lessons drawn from it, could be applied to modern situations only with fundamental modifications. Later

opponents, Schlieffen being the most notable, recognized the need for change, but did not follow the path Schlichting's experience as a commander had suggested to him.

Principles is our best available guide to Schlichting's ideas.

It was written immediately after his retirement, when his experience as a soldier was still fresh in his mind, and he had ample leisure to reflect on it; it was Schlichting's most systematic work, its sheer size (747 pages) allowed him the scope to develop his arguments the way he wanted to. It is divided into three volumes: the first, "The Tactics of Weapons in Light of the Army Regulations"; the second, "Troop Leading--First Book, Operations"; and the third, "Troop Leading--Second Book, Tactics in the Service of Operations". It is the second volume which will most engage our attention here, because that is the one explicitly dedicated to the distinction between the old and the new ways of conducting war.

Schlichting believes that a technological revolution has occurred in the time since Napoleon and Clausewitz.

The teachings of today are based immediately on those of Napoleonic (times)! . . . As opposed to this, the means for making war have changed and intensified between 1815 and 1866 as much as they had between 1815 and 1000 years previously. To mention here: increase in infrastructure and the building of roads; the

railroad; the electric telegraph, the rifled weapon, and the increase in the size of the Army as a result of Scharnhorst's general liability for military service. All of these factors must be taken together with their collective effect in order to develop a strategy of the present day, which indeed can only be called by Moltke's name. Doing that is the purpose of our treatment.²²

Schlichting does not take these technological changes at their face value. What is primary for him is the fact that war as practiced has changed. He uses the example of the change in an actual battle to illustrate his point, drawing from the best possible source, Clausewitz,²³ for his description of a generic Napoleonic battle. The important question, he insists, is whether Clausewitz's description of a battle could be applied to any battle since 1859. "A flat no is the answer, and it cannot even for one moment remain doubtful."²⁴

There are many important differences. The most striking difference is the way battle begins. Clausewitz: "One quietly arranges the army in huge masses next to and behind each other" According to Schlichting "In the present day, no battle begins this way, and no battle can. The number of combatants, and their armament, make it impossible."²⁵ A modern battle develops under a whole new set of conditions, and is influenced by a completely new set of factors. The result is that "the whole antiquated Clausewitzian picture of battle can be thrown overboard."²⁶

He is not particularly disturbed to find himself in a situation of change and uncertainty. "There is absolutely no all-encompassing strategic teaching, whether one gets it out of teaching books of the past or the demands and the experiences of the present."²⁷ At the end of Principles he remarks:

This immense subject is simply inexhaustible, and furthermore it is liable to continuous change. It is a living, organic creature that continually produces new seeds.²⁸

His concern is to work from fundamental battlefield facts to an overall view of the best way to conduct a war under circumstances as he knows them. His method of doing this is interesting to theorists, historians, and soldiers alike because it shows the development of what we would call operational conditions with extraordinary clarity, and at the same time points out some fundamental truths about them which have great validity today. Of perhaps even wider significance, it shows a dedicated soldier yoking the power of theory with that of practical experience for the attainment of his mission.

Schlichting's analysis really begins with a 19th century version of the now somewhat suspect slogan "What can be seen can be hit: what can be hit can be killed." In his case, the weapons

occasioning the observation are the breech-loading rifle and rifled artillery firing explosive projectiles. In the Napoleonic wars no one "entertained the glimmer of a suspicion" of what firepower would be like in the succeeding fifty years.²⁹ The consequence of this new firepower was greatly increased dispersion on the battlefield, changed significance of terrain, and a rise in the importance of--shovels:

The manner of fighting caused by modern weaponry requires mobility (Bewegungsfreiheit) on the part of masses [of soldiers], and their dispersion in terrain for the selection of locations that prevent unhindered enemy observation and can not be reached immediately by targeted enemy fire (Treffeleistungen). Rock and wood lose their time-tested significance on the field of battle. Protecting terrain elevations, behind which direct fire cannot reach, and where concentrated reserves cannot be discovered without special effort, serve those old functions better, and provide the opportunity as needed to take the offensive, or to change location . . . Day by day, earth becomes the only worthwhile protection on the field of battle . . . and so the shovel becomes the absolutely indispensable tool, even for offensives³⁰

This observation is not an end point for Schlichting, but a point of departure. As a practical soldier, he knows very well that changes on the battlefield require changes throughout the conceptual, organizational, and physical military structure. "In any event, Clausewitz's view, on which ours is predicated, remains valid: when the nature of one force changes, it has a reflexive effect on the others."³¹

He already had a good idea of what some of those changes would be when he was a colonel and a corps chief of staff nearly 20 years previously. To begin with, the changed significance of terrain has a direct impact on both formations and command and control at the tactical level:

Every [unique] piece of terrain that must be used, even if its true character has been scarcely recognized, implacably demands a special disposition. But the infantry that has to conduct the battle, no matter how dispersed the situation has forced it to become, must be capable and trained to maintain this disposition while remaining within the bounds of its organization. A single directing will can accomplish its ends in combat neither through orders nor through templates. Another means is necessary to maintain organization in infantry combat.³²

There is only one way to do this:

[Clausewitz] doubts whether the amount of tactical training at the lower levels, is sufficient to produce [in a combat situation] unified actions based on nothing but an original disposition. But he had not experienced the tearing up process, the highly dispersed formations, made necessary by the battle against the breech-loader. For the new battle tactics of the infantry, a higher level of training down to the level of the lowest leaders is absolutely necessary. Calling this forth and cultivating it, increasing independence and reigning in willfulness is the purpose of the spiritual work in which we are currently involved.³³

Simplified, and translated into our current terminology, Schlichting's argument reads: "Modern firepower makes Auftragstaktik at all levels absolutely essential."³⁴

The same firepower that makes Auftragstaktik necessary, also has a decisive influence on the way battle develops. We have already seen that Schlichting regards the way battle begins as one of the clearest distinctions between Napoleonic warfare and warfare in the second half of the 19th century. This may seem obvious but of little importance; Schlichting shows, however, that it has the most far-reaching consequences, not only for how we fight but for how we think about warfare.

To understand what Schlichting is saying, we must clear up a potentially confusing change in terminology between Schlichting's time and our own. We normally think of "operational" as an adjective describing a particular level of war, although we tend to have considerable difficulty in describing just what that level is. Dr. Daniel Hughes, the Combined Arms Center Historian at Ft. Leavenworth Kansas, has pointed out that for the Germans of Schlichting's time, "operativ" had to do with movement exclusively.³⁵

Schlichting, unlike Clausewitz, uses Operationen frequently. Unfortunately, he seems to regard its meaning as self-evident, and in Principles he nowhere formally defines it. As with

Clausewitz, however, his usage implies Dr. Hughes' definition.³⁶ The force of his thought, however, eventually gives the word a much wider significance than it may originally have had. Partly as a consequence of this, modern German usage approximates current American terminology. Erich von Manstein describes his attack on Poland and his capture of Warsaw as "Die Operationen des Heeresgruppe Sued".³⁷ Thus we and Schlichting use words which are cognates in two very different ways: when we say "operational" we mean a level; when he says "operativ" he means a kind of activity. There is for Schlichting no smooth transition between strategy, operational art, and tactics. He has strategy and tactics; operations, in the sense of movements, can be a part of both.

In Napoleonic warfare, as described by Clausewitz, there was always a clear distinction between operationen, on the one hand, and tactics on the other. This was true because there was always a stage between them, namely deployment/concentration (Aufmarsch) on the battlefield. The same reason made deployment and concentration both necessary and possible: the limited firepower available to a soldier carrying a smoothbore, muzzle-loading rifle could become combat effective only when great masses of soldiers were marshaled on the same spot; it was possible to marshal great masses of soldiers together on the

same spot because of the limited range of the available firepower. But with the development of new weapons all of this changes; masses of soldiers are less necessary for combat effectiveness, and are also extraordinarily vulnerable to the huge amounts of firepower suddenly available all over the battlefield. As a result, armies transition from movement to combat without there being any clearly defined intervening stage. Instead of having a three stage process of Operationen(movement)-deployment/concentration-combat now there are only two stages: "The battle develops directly from the Operationen."³⁸. (From here on, I will use the German words operation and operativ in Schlichting's sense.) Even this distinction tends to break down--because there is no intervening step, the dispositions on the battlefield are initially the dispositions for movement, and the possibilities of maneuver are severely restricted by the movement possibilities of the units trying to approach the battlefield; with no intervening stage of deployment to separate them, operationen and combat tend to merge into one another. At the larger unit level, because of the delays imposed by the system of command, they become the same thing.³⁹ "Such circumstances change the method of warmaking from the ground up"⁴⁰

This change takes place under circumstances which are radically changed in other ways as well, and Schlichting analyses them for their implications. As has already been mentioned, modern weaponry disperses a formation of a given size over a much larger area; but modern formations in a given theater are in the aggregate also absolutely much larger than those which were seen at the beginning of the 19th century. The two factors amplify one another so that

"the enlarged peoples army tyrannically demands a larger expanse of terrain, and this in turn is only possible because increased infrastructure provides in its dense net of roads the necessary means of movement."⁴¹

Road nets (as opposed to roads) become necessary merely to move the unwieldy formations which the commander has at his disposal; as we shall soon see, road nets become even more vital to actually employing them in combat.

As the commander moves his army, he must reckon with the fact that because of increased firepower, mere frontal attacks on a defender will under normal circumstances fail disastrously; furthermore, of all barriers, "the 2000 meter deep clear field of fire . . . held frontally is the strongest position imaginable."⁴² Put another way, that the area previously sought for a battle by both sides now has advantages only for

the defender: the attacker will avoid it, i.e., he will have to find some way of moving his forces around it.

Schlichting has now presented us with a picture of an attacking army of unprecedented size, moving linearly distributed along multiple routes, probably in ignorance of the exact location of the enemy. The commander is in a situation in which he knows that the many small units leading the formation will have at least to begin fighting without further direction and that he will have to maneuver around any significant forces the enemy may have located where they have clear fields of fire. It is obvious that this situation is qualitatively different from the one faced by commanders at the beginning of the 19th century. It is also obvious that there is a tremendous problem of command and control. Schlichting had two answers to the problems of centralized control. One was--don't attempt it at all; leave it to well-trained subordinates. His other was the electric telegraph either in its permanent or field form. Schlichting has a high opinion of its capability:

The expanded scale of the operations requires some kind of oversight, and the telegraph eliminates any differences between reported information and arrangements based on it. We already see in 1866 that two armies in Bohemia separated by sixty miles could communicate with one another more rapidly and effectively by way of Berlin than the First and Second Armies could communicate by the famous ride of the members Dragoon Guards Regiment . . .

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Schlichting may have given wire communication more than its due particularly with respect to its battlefield utility.⁴⁴ The operationen have taken on vastly increased importance, however, and this importance extends most emphatically to the initial strategic concentration and deployment; at that stage, the importance and efficacy of the telegraph is indisputable. The diminutive telegraph wire takes its place alongside the highway and the railroad as an essential "connection" (Verbindung).⁴⁵ All of these factors taken together have a revolutionary impact on what wins and loses wars. A particularly dramatic example of this fact is the change in the relative advantages of interior and exterior lines. According to Schlichting, the possession of interior lines was regarded as the key to victory in the early 19th century.

As long as armies were of such a size that, even when concentrated, they remained more mobile [than those of the present day are], attacking along interior lines first one side and then the other side of an opponent who was still divided was a relatively easy game to play, and so they could exploit their shorter lines by the use of faster movements. It took less time, and it could be completed in a relatively limited area, and it was therefore possible to maintain the initiative. The length of the march column was less important, as long as it did not effect the total movement time too decisively. The divided forces [on the exterior lines] on the other hand, even when they were all located the same distance from the enemy [on interior lines] were eternally at a disadvantage because the reporting of information took a long time, and the communication of orders necessary for united action also required a significant investment in time. As a consequence the operativ instructions to separated parts of the army [on

exterior lines] hobbled along behind the already completed actions of the opponent [in the central position] and were overcome by events.⁴⁴

In the modern case, realities have changed. First of all, the field telegraph now makes control of even the peripheries of the army practical in real time.⁴⁷ With that, the critical advantage in command and control enjoyed by the army with interior lines disappears. Even supposing that that advantage were maintained, however, the army on interior lines would have tremendous difficulty exploiting it because of the sheer physical difficulty of moving an army of a modern size.⁴⁸ There is nothing more important than maintaining operativ freedom, and that is precisely what an army concentrated on interior lines has permanently lost. "A concentrated army has to disperse in order to move" ⁴⁹ The army on the inside simply does not have the room to do this; there is not enough room for the road nets it needs. The central position thus "is the pinnacle of unhealthiness for modern combat"⁵⁰ and not just because of the factors already mentioned.

Modern firepower has a range and intensity unheard of in Napoleonic times, with enormous consequences:

Interior locations and positions on the battlefields have become nearly defenseless, in other terms, are exposed to effects [of firepower] that quickly bring annihilation. That is the consequence of long range weapons which can

reach right to the middle of such collections. The larger armies get, the easier, faster, and often more unexpectedly the doubtful enough operativ advantages of interior lines turn into tactical disadvantages.²¹

What was previously the most desirable position has become the least desirable. A revolution in strategy and tactics has occurred.

Schlichting's analysis is of course based on, and inspired by, a number of historical examples, the most dramatic of these being the battle of Sedan in 1870. Reading Michael Howard's classic account of that battle²² brings to life Schlichting's theoretical observation and analysis; from the point of view of the victim, Ducrot's summation of the French situation should stand as a perpetual warning to all those considering a central position in modern warfare: "Nous sommes dans un pot de chambre, et nous y serons emmerdes."²³

III. SCHLICHTING'S LEGACY

The foregoing discussion has shown how Schlichting was able to translate technological changes into battlefield effects and finally into new tactical, operativ, and strategic principles. His interest as a soldier, of course, was to change the doctrine

and war fighting habits of the German Army. In light of the course of the First and even the Second World War, Schlichting seems to have had a remarkable insight into the essentials of modern combat. Yet, historically and personally he failed. His great opponent was Schlieffen⁵⁴ and it was the Schlieffen plan that took Germany into the First World War. Schlichting's retirement in 1896 stands as the official seal on his defeat, and his major books were written from the standpoint of an outsider carrying on the battle which he lost as an insider. It was indeed the "mechanical brains of the army"⁵⁵ who determined how the Germans opening campaign of the First World War was to be fought. Had Schlichting won, no doubt that campaign would have been fought differently. On the other hand, we miss his enormous contribution to the German Army if we concentrate too much on that fact.

The Infantry Regulation of 1888, with a few revisions, was still in force at the start of the WW I, and many of the tactics which Schlichting had striven against, such as the "boundlessly useless" infantry assault in dense linear formation, were less in evidence on the German side than on the Allied. More importantly, the Germans seemed to be better at learning from experience, as Falkenhayn's plan for Verdun, or Ludendorff's March 1918 offensive showed. The habit of critical analysis

which Schlichting developed in countless subordinates probably paid enormous dividends here, and the "Hutier" tactics which the Germans used to such devastating effect in the spring of 1918 would have been unthinkable without the tradition of subordinate independence and responsibility which Schlichting so assiduously cultivated. His views on many subjects were proven to be right (or at least better than anyone else's) in the combat five or more years after his death. In retrospect he now looks like a prophet, not just of the possibilities of infantry combat, but of changes in command, the relationship of space to force on the modern battlefield, and the transition from movement to battle. It is thus correct to say that the Schlichting tradition (more correctly the Moltke-Schlichting tradition) remained alive in the German Army.

But not just the German Army. It reappears, with due, if belated, credit to its creator in the armies and staffs of revolutionary Russia.⁵⁶ Schlichting's work had been known to a few officers of the Imperial Russian Army for some time, when translation and publication of Principles into Russian made it readily available to all.⁵⁷ In the turbulent times of the Russian Revolutions and Civil War, Schlichting's thought met less resistance than it had earlier in Germany. He thus came to be seen as a significant figure in the development of Soviet

doctrine. The fact that the bankruptcy of previous military doctrine had been demonstrated to everyone's satisfaction during the First World War was no doubt important as well.

Schlichting in the Germany of the late 19th century had played a different role than the one he eventually took over in the Soviet Union of the 1920's. In the former case he was the avant garde, in the latter case, he was a somewhat dated thinker whose ideas were fruitful as the starting point for those who were developing a Soviet theory of warfare.

Schlichting ended his long life with the very mistake against which he fought for half a century: he approached the analysis and evaluation of new events using an old yardstick; Moltke's scale was just as obsolete for the 20th century as Napoleon's scale had been for Moltke's epoch.™

This does not mean that his ideas are of no use, merely that they have to be modified.

We can trace one of Schlichting's thoughts from its original expression, through its subsequent Sovietized version, to its current place in Soviet doctrine, significantly changed, but still recognizable. Simultaneously, we can see more clearly what Schlichting meant and how his insights were a result of the emergence of the operational art of war.

In his long discussion on the importance of preserving the freedom of a given commander to act independently, Schlichting mentions occasionally that in the event the enemy is encountered in a fortified position this freedom will have to be drastically reduced, and if the position is to be taken at all it will have to be attempted with a severe degree of centralized control.⁴⁰ This observation, in conjunction with Schlichting's discussion of the way battle develops, leads to the idea of a meeting engagement as a special kind of battle. According to A. A. Svechin, a prominent Soviet writer on the development of Russian military doctrine and a member of the Soviet General Staff under Frunze,⁴¹ this idea was

"another great service of Schlichting . . . to him belongs the distinct division of two categories of offensive: one against a fortified enemy, requiring centralized control; and a meeting offensive against an enemy who has not yet completed his deployment and is not yet in order."⁴²

These ideas still appear in Soviet tactical doctrine.⁴³ The meeting engagement in current Soviet doctrine sounds like an extreme illustration of Schlichting's contention that operationen in the modern day merge into battles without any intervening stage:

Upon contact, actions of the CRP (Combat Reconnaissance Patrol) are to-- . . . attempt to penetrate the enemy main force Actions of the FSE (Forward Security Element), moving in column behind the CRP by up to 10 kilometers are to --advance at maximum speed; engage the enemy with all weapons; develop the fight. At the time of the initial contact, the advance guard main body is moving in march column 5-10 kilometers behind the FSE. The commander-- . . . launches the attack. When the advance guard becomes engaged, the main force continues its forward movement (and in turn engages the enemy, if there is anything left to engage).⁴³

In modern Soviet doctrine, however, Schlichting's idea has been elaborated into three forms: the meeting engagement (just described), attack from the march against a defending enemy, and attack from a position in direct contact against a defending enemy. We have seen how the meeting engagement fits into Schlichting's ideas precisely. The attack from a position in contact is really a throwback to the older form of warfare⁴⁴

The attack from the march, however, is not so easily categorized. One is initially tempted to see it as a repetition of Schlichting's idea.

An attack from the march, the preferred method of attack, is launched from march formation out of assembly areas in the rear. Subunits deploy laterally at designated control lines and assume attack formation within approximately 1,000 meters of enemy defenses.⁴⁵

On the other hand, mutatis mutandis, it also looks very like Frederick the Great's oblique order⁴⁴ and even more like Guibert's system of deployment mechanized.⁴⁷ In fact, that is precisely what it is.

This presents a problem. Has the internal combustion engine paradoxically brought us back to the forms of warfare prevalent in the 18th century? The question is worth a thorough investigation, because when we have answered it we will see both how great a revolution has occurred, and where the true locus of that revolution is.

Clausewitz had said: "One quietly arranges the army in huge masses next to and behind each other."⁴⁸ Schlichting quotes Clausewitz and then states categorically "In the present day, no battle begins this way and no battle can. The number of combatants and their armament make it impossible."⁴⁹ On reflection, Schlichting, at least, seems to be wrong. Determination and ingenuity can always find a place to deploy on the battlefield, the number of combatants and their armament notwithstanding. The initial deployment for the Somme, for example, took months, and was planned and organized to the last detail. It also cost considerable casualties, but when the whistles blew, 60,000 British soldiers in as unified a manner as

any of Napoleon's Corps could have managed, went over the top together.⁷⁰

Schlichting, in fact, knew of examples of similar events. He even describes exactly how such an assault is to be conducted, should a commander ever be driven to order one.⁷¹ Parts of the battle of Gravelotte-St. Pierre are glaring and famous cases. But he also knew that defensive capability had been radically improved, improved to the point that a clear field of fire made a given piece of terrain the strongest obstacle imaginable. This fact for him is key. Where previously only impassable terrain, a field fortification on the scale of Buenzelwitz⁷², or a regular fortress made assault impossible, now a mere clear field of fire defended by a few determined infantrymen with breech-loaders stops all offensive movement. And where clear fields of fire do not exist, they can be quickly made.⁷³

The kernel of truth in Schlichting's observation, then, is not that massing of troops on the battlefield is impossible but that it usually is, to quote his own words, "boundlessly useless".⁷⁴ By the time the massing can be accomplished the defense has organized its fires and become impregnable. The only way for an attacker to succeed is to assault or flank

defensive positions faster than they can be prepared; i.e. transition into combat without waiting for an orderly deployment. If the situation cannot be kept fluid, the offensive will grind to a halt, with no very clear way of restarting it. This is the idea the Soviets pick up, and their knowledge of position warfare in the West on the one hand, and their own experience with mobile warfare in the East on the other, make it very persuasive to them. From the Western perspective, the whole course of World War I on the western front compellingly demonstrates the truth of Schlichting's view.

Technology does not stand still, however, and with the introduction of armored cross-country vehicles, the defense lost some of its frontal strength. It once again became possible to operate on the battlefield, even in a frontal assault. As a result, we see a return to the tactics of Guibert, with armored vehicles instead of infantry deploying (occupying assembly areas), conducting an approach march in which further evolutions broaden their formation into a combat formation, and assaulting--from the march, but not from the formation with which a long distance move would be accomplished.

The wheel has thus come full circle; the tactics that one technology, roughly that of the rifled breech-loader, had made obsolete, are restored in a changed but still recognizable form by the technology of the armored vehicle. Our current question is, has missile, mine, and sensor technology turned the wheel again?

But we must not stop here. If we really want to know whether technology has restored the forms of warfare of the 18th century, Schlichting has shown that there is another question that is even more urgent. Do these events have implications for operationen and operational art? To answer this question, we must look back over the development of the operational art as we, with Schlichting's help, have just seen it.

Guibert's battlefield--the area in which weapons effects were significant--was tiny. The battle was isolated both in space and in time: isolated in space, because the slowness of transportation and communication excluded any influence that was not strictly local; isolated in time, because although events preceding the battle influenced its outcome, their impact was sharply mediated by the actions of the highest commanders on the battlefield itself. Commanders could, and often did, radically alter the dispositions of their forces right on the battlefield while the actual combat was in progress.

Napoleon's battles were both larger and less isolated in space and time. The levee en masse provided him with the manpower, the corps system with the command and control to populate and manage a much larger battle. Furthermore, and more importantly, Napoleon, for his own reasons, strived to impose on his enemy precisely those conditions which, within 50 years, technology would impose on all commanders. The area immediately significant for the outcome of his battle expanded simply because of the unheard of demands he successfully made on his revolutionary armies; the area within one day's march of the battlefield became much larger. The time period immediately significant for the outcome of his battle expanded because of his unique use of planning, deception, and movement. By concealing his true dispositions until the last moment, and then prosecuting the battle very aggressively, he repeatedly put his opponents in a situation in which they had to fight in the disposition in which Napoleon had found them.⁷⁹ Napoleon planned his battles days in advance, making every movement in light of a multitude of possible battles that might develop; his enemy was kept in the dark about these movements, and when the "denouement" finally came, hours after the actual conflict had started, the enemy had no time to change the dispositions of even his relatively small and compact armies. Thus events on

the battlefield were decisively influenced by events which occurred long before the first shot was fired, because Napoleon had been "fighting" his battle for days. The development we see here, however, is the consequence of the will of one man; it was not inherent in the situation. Napoleonic battles are uncannily modern, that is to say, they have a significant operative element, because Napoleon made them that way. By 1866, however, as Schlichting has shown us, the necessity for operational warfare inhered in the means of warfighting themselves. The battle was not isolated in time--the disposition of forces is determined by mobilization, railhead locations, and a road network stretching over many miles and it could not be quickly changed. In 1757 at Rossbach, Frederick the Great had been able to enjoy a leisurely lunch, issue an order completely changing the disposition of his army, and win a resounding victory before supper.⁷⁶ Because the size and distribution of his forces at Koenniggraetz, Moltke could not even think of such battlefield choreography. It was a new age of warfare, even if its pre-eminent practitioner was at that point only dimly aware of the revolution.⁷⁷

Only thirty years after Principles was published, Svechin identified a great change of scale between Moltke's wars and the First World War. But Svechin laid heavy emphasis on the

importance of the defensive,⁷⁸ and his emphasis on scale proved to be too narrow a focus. In the Soviet Union, V. K. Triandifilov and, above all, M. N. Tukhachevsky, recognized that because of the tank and the airplane, a change had occurred not just in tactics but in operations as well.⁷⁹ Svechin was absolutely correct about the importance of scale, but he overlooked the significance of the fact that under the right conditions certain kinds of forces--airborne and armor--could move very far and very fast indeed.⁸⁰ The battlefield--the area in which weapons effects are significant--had become immense, embracing entire nations. In WWII, operationen, in the sense of movements which could effect the relative disposition of forces overall, became even more difficult because of the potential interference of airpower. By the same token, they were of increased significance for the outcome of the battle, since once they had been made they could not be changed on short notice. But it was just this increased lack of flexibility that opened the door to Tukhachevsky's various armored and airborne deep operations, and what made them so devastating. Already here we see essentially the nonnuclear battlefield of current Soviet doctrine. ... the technology of armor and mobility have at least temporarily returned Guibert's tactics to the battlefield, Svechin points out that ground and airpower have more than maintained its uniquely modern operational context.

and Tukhachevsky shows in his turn how new armor and new forms of mobility modify operational principles as well.

As we look toward the future, we can clearly foresee dramatic developments in the range and effectiveness of firepower. There has been no commensurate increase in the mobility of heavy forces, particularly in the mobility of their logistical apparatus. Operationen and operations will thus become more important and more difficult. In the extreme case--which we are a long way from reaching--we will face not merely a "come-as-you-are" war, but one that could be described as a "fight-where-you-are" war. In that extreme (and unlikely) case, operational art will decisively influence the outcome of a war before hostilities are even declared.

IV. CONCLUSION

We now have a little more perspective on Michael Howard's two comments--"It is the task of military science in an age of peace to prevent the doctrines from being too badly wrong:" and, we must carefully preserve "the speed with which we are able to adjust". Schlichting's thought and example give us ample reason for both pessimism and hope.

Pessimism because with the authority of a military hero who understood the new doctrine, and two tremendous national victories which incontestably had risen from it, Schlichting still had to struggle against Napoleonic doctrine that was eighty three years out of date, and in the end, was able to win only a Pyrrhic and partial victory.

Optimism, because for all the difficulties he faced, and the long period of peace in which he lived, Schlichting was in fact able to see the essentials of the new situation in which he and the German Army found themselves, and was able to develop a doctrine that was "not too badly wrong" as it stood. When the great test came, those younger officers whom Schlichting had so diligently trained, modified it into something better than anyone else in the world had.

APPENDIX

SCHLICHTING'S BIOGRAPHY

Although in many ways Schlichting's career was typical of that of successful German officers, in the critical matter of university education he followed a unique path. Born in 1829 in Berlin to a Prussian general of infantry who was also the commander of the Kriegsakademie,¹ Schlichting was from the beginning of his life marked out for a military career and, given his background, could reasonably have expected to be successful in it. He grew up in the cadet CORPS in Berlin (where he received only average grades),² was posted to his first military unit at the age of 17, and received his commission a year later. After six years' service at regimental level, he was given leave ("beurlaubt") to accompany the Prince of Schwarzburg in his studies at the Universities of Bonn and Goettingen for three years. This cost him the opportunity to attend the Kriegsakademie, but it also provided him with a liberal education of a very high quality.³ In this respect he was very like Moltke⁴ and very unlike Schlieffen.⁵ One has the feeling that Schlichting liberal education tempered his strictly military upbringing, and contributed to his openness to new ideas and his marked resistance to both dogma and fashion.

Following his three year sojourn in a civilian environment, he returned to regimental duty in 1857, and, after 13 years as a lieutenant, was made a captain and a company commander in 1861. He commanded the same company for five and one half years, a time which he not only thoroughly enjoyed* but which served as the source of at least one of his most fundamental views of military command:

It is from this time that I derive my views concerning training for war ("kriegsmaessige Truppenausbildung"), and I have remained true to them to the end.

Give me the objective ("Gefechtsziel") and leave me the choice of means to achieve it. That was the cry of those who were led, and that is now the view of the doctrine. Even then, to the extent that the performance of the soldiers is considered, it helped us to victory.⁷

Schlichting first experienced combat as a company commander in the Second Guards Division in 1866 during Prussia's war against Austria. Although Schlichting himself says that the combat demands made on his company were not too severe, the fact that one officer and nine NCO's and soldiers received decorations for their part in the action indicates that they must have been significant. After the fighting was over, the withdrawal from Austria under execrable conditions, made an indelible impression on Schlichting of the value and character of discipline:

The losses which our company suffered through that

treacherous disease cholera were much more severe (than those which we suffered in combat). The company was to protect a war chest during the withdrawal from the Danube to Prague, and we were left totally isolated, without a doctor or medicines, without even any kind of aid station, completely dependent on the assistance we could render to ourselves. The situation was a touchstone of discipline based on trust (Vertrauen). That is the only kind of discipline that holds up in all the crises of a campaign, and is markedly different than the rattling rigidity of the drill square.¹⁰

At the end of 1866 Schlichting was promoted to major, and, although neither his academic nor his military performance had been dramatically above what was expected of a line officer, was made a member of the general staff and sent to the 18th Division in Flensburg.¹¹ Shortly thereafter he was sent to the "Great" General Staff in Berlin, where he soon began working for the man who was to serve as his model and hero, as well as the source of many of his military ideas, Helmuth von Moltke. His analysis of one of the campaigns of Prussia's war against Austria earned Moltke's respect and approval, although its iconoclastic clarity was a source of aggravation for some of the senior officers involved.¹² In the first months of 1870, just before the outbreak of the Franco-Prussian War, he published his first article, "The Relationship of Fortresses to Active Warfighting." He participated in the war itself as the commander of the 1st Battalion, 63rd Infantry Regiment, of the VIth German Corps, and took part in one minor engagement and the siege of Paris.¹³

In July 1872, he gave up the command of his battalion and became chief of staff of the VII German Army Corps in Muenster. From this point on, his career followed the pattern of a successful general staff officer, and his promotion was unusually rapid even by general staff standards.

After two years, in October, 1874, he returned to the line as the commander of a regiment in Spandau. Remembering that time nearly thirty years later, he reflected on the progress of his own thought, and the surprising regression of the Prussian Army away from the virtues that had brought it victory. Great pressure was brought on Schlichting to apply techniques of warfare that were clearly outmoded:

My time as a regimental commander fell into the epoch when our great deeds of arms were in our most recent past It was the time of standard attacks (Normalangriffe), and the attempt, both in the press and on the drill field, to bring back to life the linear battle in ranks (Treffengefecht), which had proven itself so boundlessly useless for accomplishing our missions in the war. This time was worth my reflection for another reason as well. The overall direction of my development, which had made me an outspoken enemy of all rigid templates for action (formalistischen Leistungen), now almost by itself led me to the idea that just as at the company level the requirement for developing true combat discipline was the illumination and strengthening of the character of all the soldiers, so at the regimental level the key lay in doing the same for the officers, in particular, for the company commanders.

Maintaining the direction I had set for the regiment was made unpleasant enough for me. The survival of the old regulation, and the army tradition, which from the time of Frederick the Great had favored, with grave consequences, the drill field, now threatened daily to sink the little ship of my training program, and made the water over which it was to sail difficult and full of rocks.¹²

Whatever difficulty Schlichting may have had with his training methods, and he himself did not regard his three and one half years of regimental command as having been particularly successful, he evidently impressed somebody, for he received his next assignment as chief of staff of the Guard Corps. "In the decisive places, there was not the least intention of shunting him aside merely because his tactical views were different from those of the majority. Indeed, they were recognized more and more as being correct, and attempts were made to broaden his contacts."¹³ Nor was Schlichting himself reluctant to publicize his views. His speech to the Berlin Military Society in 1879, which was immediately published, outlined in general form his various ideas. His presentation, outlining a system of how war was to be fought under modern conditions, had far-reaching consequences in that it led to his taking a major part in writing the infantry regulations of 1888. He remained as chief of staff of the Guard Corps for over six years, a post which he used to "conduct a constant and indefatigable agitation for the new combat teaching, using every method to reach the

decisive personalities of the War Ministry, the General Staff, and the Guard Corps . . . "14

From 1884 until his retirement in 1896, Schlichting was without interruption a commander, first as the division commander of the 15th Division in Cologne (1884) and of the 1st Guards Infantry Division in Berlin (1885-1888), and then as commanding general, 14th Army Corps in Karlsruhe (1888-1896). He devoted his attention to developing his understanding of modern warfare, and to teaching himself and his subordinates how to conduct it successfully. His main vehicles for this investigation and teaching were staff rides and maneuvers which were invariably followed by detailed critiques which we would call "after action reviews." These were preserved in written summaries for circulation and comment. The procedure then, as now, produced considerable uneasiness among the commanders involved. Schlichting's comment reveals his attitude:

"Errors will always be made. Everyone is unconditionally included in this statement. For that reason, I am a long way from putting myself above my own critical analysis, and as a consequence, when I apply that analysis to others, it ceases to be blame."15

Gayl has preserved many of these analyses in their entirety, and they can still serve as a model of hard-headed consideration of

peacetime maneuvers for the purpose of preparing for future war.¹⁶ Schlichting was regarded as a highly successful corps commander,¹⁷ so his sudden retirement in 1896 must have come as a shock.¹⁸ The end of his active service did not mark the end of his influence in the German Army, however; within one year of his retirement, the first volume of his major work Taktische und Strategische Grundsätze der Gegenwart (Tactical and Strategic Principles of the Present Day, hereafter referred to as Principles) appeared, and in 1901 he published Moltke's Vermaechtnis (Moltke's Legacy)¹⁹ an energetic attack on the entire theory of warfighting on which the Schlieffen plan was built. He subsequently published analyses of the Boer War and the Russo-Japanese War, and no less than three critiques of Schlieffen's work. Even during the last two years of his life, he maintained a lively correspondence on military matters. Schlichting died in 1909.²⁰

APPENDIX ENDNOTES

¹von Gayle, p. 9

²von Gayle, p. 13

³"He was therefore able to round out his general education with a three-year visit to the Universities of Bonn and Goettingen at the side of Prince Schwarzburg. He applied himself to this project then and later to a high degree, so that he must be described as an unusually and universally educated man. He spoke fluent French and passable English, the grounds for which had already been laid in his parent's house. He followed current events with glowing interest, and wanted to know the reason and explanation for all new events. He was fascinated by ancient times. Rome, which he visited eight

times, had a magnetic appeal for him. He was thoroughly familiar with both classical and modern literature, and knew Shakespeare and Goethe like few other men . . . He read and discussed much and with pleasure and was an unusual(ly pleasant) man of society whose warm heart and clear judgement awakened a warm welcome (Sympathie) wherever he appeared." Gayle, pp. 13-14

*Franz Herre, Moltke, Der Mann und sein Jahrhundert. (Stuttgart: Deutsche Verlags-Anstalt, 1984) pp. 13-16

°Goerlitz, 128-129

♣"In the long line of my practical training as a leader in the German Army, there are three points my memory loves to dwell on--my time as a company commander, as a regimental commander, and as a final station ("Hotel Terminus") as a commanding general." quoted in Gayle, p. 10

7Quoted in Gayle, p. 11. Emphasis in the original. The historical occasion is Prussia's war against Austria. The doctrine that Schlichting is referring to is presumably the Infantry Regulation of 1888, which Schlichting had a large part in drafting.

°Gayle, p. 12

♥Realistically, one has to see here the working of good personal connections either through Schlichting father or through Prince Schwarzburg. Gayle is kinder: "This unusual occurrence is the first outward indication of Schlichting special ability, that up until this point had been developed merely in the line, and it represents a decisive turning point in his entire, remarkable (grossartigen) development." (Gayle, p. 12) Without outside help, an officer with 19 years' service, who had neither battlefield heroics nor time in significant staff jobs to help him, and who, furthermore, had never been to the Kriegsakademie, simply would not have been given a general staff appointment. On the other hand, looking at Schlichting's subsequent career, it is difficult to say that the decision was a mistake.

1°Gayle, p. 16

11Schlichting's assumption of the command of a battalion just before the outbreak of the war represents an inexplicable turn

in his career. A member of the Great General Staff, one who, if we are to believe Gayle, was liked, admired, and trusted by its Chief, and even thought of as his eventual successor (Gayle, p. 15-16), would not have left the Staff for the job of a line officer just as the German Army was about to launch its largest and most spectacular campaign of the 19th century. Gayle offers an explanation the improbability of which only deepens the mystery:

Unfortunately, in the spring of 1870, he was compelled to request a transfer to the front out of regard for his health ("aus Ruecksicht fuer seine Gesundheit" !!), so that he could not accompany Moltke on the campaign." (Gayle, p. 17)

Did Schlichting prefer duty at the front to such a degree that he chose it in spite of the negative effects it was likely to have on his career as a general staff officer, and, more to the point, in spite of the fact that his unique talents could be better used on the Staff? Had he a falling out with some extremely powerful individual who forced him to leave for the front? Was some sort of scandal involved? We do not at present know. Two things are certain, however: few things could be so demanding on the health as service in a battalion in the field, as Schlichting well knew from his experiences in the war with Austria; and living conditions for the general staff were seldom worse than those experienced by a prosperous German family during its summer vacation

¹²Cited in Gayle, p. 45. Perhaps because of his time at Bonn and Goettingen, Schlichting is not above overloading a metaphor occasionally.

¹³Gayle, p. 46

¹⁴Gayle, p. 48

¹⁵Gayle, p. 49

¹⁶Schlichting's unrelenting seriousness must have become less and less in tune with the temper of the times, particularly as it was expressed at the highest levels. See Gordon Craig, Germany, 1866-1945 (New York: Oxford University Press, 1978), p. 228

¹⁷Gayle, p. 151

¹⁸Goerlitz, p. 136

¹⁹Sigismund von Schlichting, Moltke's Vermaechtnis (Munich: Verlag der Muenchner Allgemeine Zeitung, 1901)

20This somewhat cursory biography of Schlichting has ignored the tumultuous political and social events of the times. In a way this is appropriate, since Schlichting ignored them too--" . . . I look on the world and the things that are just now beginning to become important, and they seem to me so strange that I am unable even to orient myself . . . " (Cited in Gayle, p. 424) On the other hand, as insular as the army tried to be, it could not ultimately escape its environment.

ENDNOTES

¹Michael Howard, "Military Science in an Age of Peace," Journal of the Royal United Services Institute for Defense Studies, No. 119, March 1974, p. 3-11

²Carl von Clausewitz, Vom Kriege (Bonn: Duemmlers Verlag, 1980), p. 336
³Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1984), p. 170
Subsequent references to Clausewitz will give the page number of the German edition cited above, followed by the English version in parentheses, e.g. Clausewitz, p. 336 (170)

³FM 100-5, Operations, (May, 1986) pp. 1-4; Howard, p. 7-8

⁴Howard, p. 7

⁵Ibid.

⁶Ibid.

⁷We must not forget that the use of historical analogy for the investigation of current dilemmas is fraught with danger. Simply getting our historical information correct is difficult; analyzing that information correctly is a further and equally difficult step. We must continually remember that those whom we study, even those in relatively recent times, saw the world much differently than we do. Furthermore, there is the temptation, not to be underestimated, to seem learned at the expense of trying to discover the truth: in Clausewitz's pointed words, to use "dark, half-true, muddled, willful" examples "dragged up and piled together from the most remote times or countries," which are in reality, nothing but "junk and the aim of the author to show off his learning." [Clausewitz, p. 333 (p. 169)]

Historical analogy is about the only tool that will help us in dealing with the consequences of technological change. When it comes to adapting to such change, no one has yet devised an exercise that follows Clausewitz's famous advice that "the soldier . . . not see those events in war that initially throw him into confusion and amazement, for the first time in war . . ." [Clausewitz, p. 266 (p. 122)] That is indeed precisely Howard's point: war is so different from peace that we really have little hope of simulating those effects of change which "initially throw (us) into confusion and amazement" when we encounter them on the first battlefield of the next war.

⁸Theodore Ropp, War in the Modern World, (New York: Macmillan

Publishing Company, 1985) p. 161.

*Martin Van Creveld, Command in War (Cambridge, Mass.: Harvard University Press, 1985) pp. 115-140. Van Creveld is my source for Moltke's activities; the comparison with Napoleon's command at Jena-Auerstaedt is mine alone, and van Creveld might well disagree with it.

¹⁰Hew Strachan, European Armies and the Conduct of War, (London: George Allen and Unwyn, 1923) p. 113.

¹¹Michael Howard, The Franco-Prussian War, (London: Methuen, 1931) pp. 174-175.

¹²The date 1865 would be more accurate, since the American Civil War demonstrated all of these phenomena. To their cost, most Europeans refused to take that war seriously. "The experience of the American Civil War, that cavalry had to be able to shoot as well, was rejected out of hand as unworthy of the German cavalry spirit." (Schlichting, Principles, 2: p. 151. Schlichting was less dismissive than his comrades, but the information available to him does not appear to have been very extensive.

¹³von Creveld, p. 149.

¹⁴Van Creveld, p. 115-140; Howard, Franco-Prussian War. pp.83-85.

¹⁵Van Creveld, p.151.

¹⁶Gordon Craig, The Politics of the Prussian Army (New York: Oxford University Press [Galaxy Book], 1964) p. 264.

¹⁷Walter Goerlitz, History of the German General Staff (New York: Praeger Publishers, 1953) p. 129.

¹⁸Goerlitz, p. 136.

¹⁹Von Schlichting's major work is Taktische und Strategische Grundsätze der Gegenwart [Tactical and Strategic Principles of the Present] 3 vols. (Berlin: Ernst Siegfried Mittler und Sohn, 1897-1899). His most polemical work, Moltke's Vermaechtnis [Moltke's Legacy] (Munich: Verlag der Muenchner Allgemeine Zeitung, 1901) is unfortunately not available in the United States. He wrote many articles, the most famous of which is probably his essay on infantry tactics, "On the Infantry Battle", which appeared in 1879 and led to his having a major part in the shaping of the Army Field Regulations of 1888. 2

"biography" (Egon Freiherr von Geyl, General von Schlichting und sein Lebenswerk [General von Schlichting and his Life's Work]. (Berlin: Verlag Georg Stilke, 1913), written by a fellow general, appeared in 1913 and is in fact more a collection of unpublished observations, manuscripts, and quotations from von Schlichting than a true biography. It is thus valuable as a primary source. None of these works have as yet appeared in English.

²⁰Goerlitz, p. 136.

²¹See Appendix for a more detailed biography.

²²Schlichting, Principles, 2: p. 9.

²³Clausewitz, pp. 420-421 (226).

²⁴Schlichting, Principles, 2: p. 90.

²⁵Schlichting, Principles, 2: p.90.

²⁶Principles 2: p.91 .

²⁷Schlichting, Principles, 2: p. 33.

²⁸Schlichting, Principles, 3: p. 274.

²⁹Schlichting, Principles, 2: p. 151.

³⁰Schlichting, Principles, 2: pp. 40-41.

³¹Schlichting, Principles, p. 94-94.

³²Schlichting, Sigismund "Ueber das Infantriegefecht, Vortrag, gehalten in der Militaerischen Gesellschaft am 4. Maerz, 1879" ("Concerning the Infantry Battle. A speech given to the Military Society on the 4th of March 1879) Beiheft zu Militaerische Wochenblatt, 1879 p.40. Hereafter referred to as "Infantry Battle". Many years to include 1879) of the Beiheft zu Militaerische Wochenblatt are available in the Hoover Collection.

³³Schlichting, "Infantry Battle", p. 67.

³⁴In "Infantry Battle" and subsequent works as well, Schlichting is really fighting in two directions on this front. On the one hand, as seen in the quotes provided, he is arguing for an increased scope for the decision making of the junior leader. On the other hand, and just as emphatically, he is

concerned to set definite limits to the freedom thus granted, and to prevent its willful abuse. He cites with approval Scharnhorst's severe punishment for those who cross the bounds of their authority. (Schlichting, "Infantry Battle," pp. 44-45).

35In On War Clausewitz does not seem to use the word Operation except as a part of a compound word ("Operationslinie", or "Operationsbasis"). His usage of these compounds is entirely consistent with Dr. Hughes' observation, since it is always in conjunction with the discussion of movement, e.g. "the angles of the Operationslinien, the concentric or eccentric movements . . ." Clausewitz, p. 354).

36A particularly clear example occurs in the first book of Principles, where he says "normal operational development ("Operationsverlaufe") which are aimed at the enemy must flow onto the battlefield ("in das Schlachtfeld einmünden") with a straight ahead movement." (Schlichting, Principles, 1: p. 90.) Book Two also has a clear example: "The large operations which lead to the battlefield." Schlichting, Principles, 2: p. 89. See also Principles 2: p. 139, 3: "Einleitung", and 3: p. 44.

37Erich von Manstein, Verlorene Siege (Muenchen: Bernard und Graefe Verlag fuer Wehrwesen, 1955) p. 35.

38Schlichting, Principles, 2: p. 91.

39Schlichting, Principles, 2: p. 94.

40Schlichting, Principles, 2: p. 91.

41Schlichting, Principles, 2: p. 15.

42Schlichting, Principles, 2: p. 55.

43Schlichting, Principles, 2: p. 24.

44See van Creveld, p. 145; also J. F. C. Fuller, Generalship: Its Diseases and Their Cure (Harrisburg, Pa.: Military Service Publishing Company, 1936) p. 61.

45"Of necessity, the electric telegraph must now be added to those connections which are regarded as strategically determinative." Schlichting, Principles, 2: p. 33.

46Schlichting, Principles, 2: p. 11-12. There is certainly room to refine this view historically. If Napoleon clearly managed interior lines brilliantly to succeed ultimately at the siege of Mantua, he as clearly used exterior lines to bottle up

"the unhappy General Mack" in Ulm. David G. Chandler, The Campaigns of Napoleon (New York, Macmillan Publishing Company, 1966) p. 393 (map). The whole concept of manoeuvre sur les derrieres depends on the use of exterior lines. Chandler, p. 184-191. Chandler uses the term "strategic battle".

47"With respect to the personal will of the commander, and its execution, the Army has now become an individual, which can react with a coordinated action (einheitliche That) to an event whether it occurs 60 miles away or in the immediate vicinity." Schlichting, Principles, 2: pp. 33-34.

48Schlichting, Principles, 2: p. 15.

49Schlichting, Principles, 2: p.14 Schlichting is quoting Moltke.

50Schlichting, Principles, 2: p. 20.

51Schlichting, Principles, 2: p. 15.

52Howard, Franco-Prussian War, pp. 194-218.

53Howard, Franco-Prussian War, p. 208.

54Goerlitz, p. 136.

55Schlichting, cited in Goerlitz, p. 136.

56I am indebted to Mr. James Schneider of the School of Advanced Military Studies at Ft. Leavenworth for pointing this out. Dr. Jacob W. Kipp and Dr. Harold S. Orenstein of the Soviet Army Studies Office at Ft. Leavenworth found and translated the critical reference.

57"SCHLICHTING (from A. A. Svechin's Evolution of Strategic Theories) an unpublished translation by Dr. Harold S. Orenstein, Soviet Army Studies Office, Fort Leavenworth KS, of Evolutsia strategicheskikh teoriy (Evolution of strategic theories), published by B. Gorev, editor, Voyna i voyennoye iskusstvo v svete istoricheskogo materializma (War and military art in the light of historical materialism), Gosudarstvennoye Izdatel'stvo, Moscow-Leningrad, 1927, pp. 88-100. p. 5 This and subsequent page numbers refer to the page number of the translation.

58Svechin, p. 17.

59Schlichting, Principles, 2:p. 94 Recent warfare offers an extraordinarily clear illustration of Schlichting's point.

During the 1967 Arab-Israeli War, Israel Tal, facing a situation along the Rafah-al Arish axis in which he was quickly able to create fluid conditions, commanded using a very loose form of "optional control". (Edward Luttwak and Dan Horowitz, The Israeli Army (New York: Harper and Row, 1975) p. 241ff.) In the center of the Sinai sector, with the heavily fortified and well armed and well organized Abu Ageila complex to overcome, Ariel Sharon tightly orchestrated his forces in what approached a set-piece battle. George Gawrych, The Israeli Path to the Operational Art of War: Division Operations at the '56 and '67 Battles of Abu Ageila (Ft. Leavenworth, KS: U.S. Army Command and General Staff College, Combat Studies Institute, 1987/1991 p. 90, 129-130

• Peter Paret, ed., Makers of Modern Strategy from Machiavelli to the Nuclear Age, (Princeton, N.J.: Princeton University Press, 1986).

• Svechin, p. 7 Svechin asserts that this distinction is fully developed in the 1888 Infantry Regulations. Unfortunately, these are not available in the United States. There is no reason to doubt Svechin's position, however; Schlichting is quite explicit about this distinction. See Principles, 3: p. 133-134.

• Field Manual 100-2-1 (Washington, D. C.: U.S. Government Printing Office, 1984) Chapter 5.

• FM 100-2-1 p. 5-34, 5-35 Compare with Schlichting's description of exercises designed to increase skill in meeting engagements. (Schlichting, 1: p. 106-107).

• The advantages the Soviets attribute to it clearly show this:

- * It allows more thorough study of terrain and enemy disposition;
- * It permits a more refined organization of battle;
- * It is easier to coordinate fire and maneuver. (FM 100-5, p. 5-13).

• FM 100-5 p. 5-13.

• Strachan, p. 20.

• Strachan, p. 25-27.

• Clausewitz, 420 (226).

69Schlichting, Principles, 2: p. 90.

70John Keegan, The Face of Battle (Harmondsworth, Middlesex: Penguin, 1976) p. 248 For the deployment see pp. 213-219, and 229-230.

71Schlichting, Principles, 1: p. 107-112.

72Clausewitz, p. 338 (171) See Halweg's note p. 1194.

73Howard, Franco-Prussian War, p. 329.

74Gayl, p. 45.

75Chandler, pp.178-191, see in particular pp. 186 ff.

76Albert Sidney Britt III et al., The Dawn of Modern Warfare, (Wayne, N.J.: Avery Publishing Group Inc., 1984) pp. 120-121.

77"It remains questionable whether Moltke, at least before 1866, was fully aware of the consequences. . . ." Schlichting, Principles, 2: P. 22.

78Paret, ed. Masters, p. 665.

79Paret, ed. Makers pp. 664-665.

80Ulysses S. Grant, one suspects, would have appreciated the flexibility these new kinds of operationen achieved. He sought operational flexibility and showed twice--elegantly at Vicksburg, clumsily and brutally in the Wilderness--what price he would pay to get it.

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