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LEARNING THE OPERATIONAL ART

BY

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Learning the Operational Art

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The Army has recently adopted a new warfighting doctrine—AirLand Battle. Fundamental to this new doctrine is the concept of operational art. Historically, operational art is not new, but it has not been taught in more than thirty years and is, therefore, new to the current generation of Army officers. The Army has institutionalized a system to produce excellence in tactical warfighting, but no such system exists to produce excellence in operational warfighting. There is more to learning the operational art than voluntary
BLOCK 20 (continued)

reading programs, doing short case studies, and attending lectures. Operational
art, like tactics, is learned only through practice--through experience.
Detailed, systematic study of military history can provide such experience.
The institutionalized operational excellence of the German General Staff prior
to and during World War II seems to prove the methodology is valid. The
author's personal experience and historical research attempt to show that
this methodology is the only way to learn operational art in peacetime. A
number of suggestions on how the Army might proceed with institutionalizing
excellence in operational art are provided.
LEARNING THE OPERATIONAL ART

INDIVIDUAL ESSAY

by

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April 1986

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For me as a soldier, the smallest detail caught on the spot and in the heat of action is more instructive than all the Thiers and the Jominis in the world.

--From Battle Studies by Ardant Du Picq

LEARNING THE OPERATIONAL ART

If operational art is as important to successful warfighting as our leaders and schools say it is, and if operational art is to be learned in the manner that it is now being taught, then I believe, as the old saying goes, "You can't get there from here."

There is no criticism intended. On the contrary, the reintroduction, after many years in the closet, of operational art and the concept of an operational level of war is an important manifestation of a renaissance within the Army in warfighting doctrine. Nowhere is the renaissance more pronounced than in the changing curricula of our staff and war colleges and in the pages of our professional journals. One only has to look at the index of recent journals to see the proliferation of thoughtful, visionary, and challenging articles on the subjects of military strategy and doctrine.

The seminal work of the revolution in doctrine (some might say evolution, but it does not matter which) is the 1982 version of Field Manual 100-5, Operations, the Army's statement of its AirLand Battle doctrine--how it will fight and win in war. What is new, revolutionary in my view, is the concept of the operational level of war. It is certainly not new in world military history; nor is it new in American military history. But you have to look back more than thirty years to find it, so it is new to the current generation of officers whose rapidly waning warfighting
experience is confined to the tactical victories and strategic defeat of Vietnam.

Just what exactly is "operational art"? It is the expertise required of a leader and his staff to fight successfully at the operational level of war. A draft of the forthcoming 1986 revision to FM 100-5 does a much better job of definition than the 1982 version. "Operational art defines the sequencing of tactical activities and events to achieve major military objectives. Its central concern is the design, organization and conduct of major operations and campaigns."²

FM 100-5 describes three levels of war--strategic, operational and tactical. Military strategy is derived from national policy and establishes goals, provides resources and imposes constraints to secure policy objectives by applying or threatening to apply force. It is not discussed further in FM 100-5 and is mentioned only because it provides context and the basis for warfighting.

Of the two fighting levels of war, operational art is the skillful translation of strategic goals into achievable military objectives and the subsequent planning, positioning and maneuvering of forces to achieve those objectives. It is the bringing, normally, of corps and larger forces to bear at the appropriate time and place on the battlefield to impose our will on the enemy. Tactical art is the skillful employment of forces, normally division and lower, to fight those battles at the place and time the operational art has chosen.

Operational art is the link between strategy and fighting battles. It is what gives substance to strategy and meaning to the loss of life and materiel inevitable on the battlefield. It is the highest purely
military activity in the three levels of war. It is Alexander the Great in Persia and Hannibal in Italy. It is Genghis Khan in Asia and Gustavus Adolphus at Breitenfeld. It is Frederick the Great at Leuthen and Napoleon at Austerlitz. It is Jackson in the Shenandoah Valley and Moltke at Königgrätz. It is Rommel in North Africa and MacArthur at Inchon. All of these great captains conducted campaigns that were, in their time, decisive. All were masters of the operational art.

Operational art is what wins wars and is what the profession of arms is all about. It is an art the citizens of our country pay us, in the interest of national security, to apply with skill in wartime.

In these words about the primacy of the operational art to the professional soldier, I do not mean to sell short the value of tactics. Without good soldiers, well equipped, well led, and well supported in good combat units, and employing sound tactical doctrine, skill in operational art will count for nothing. Moreover, the ability to fight at the tactical level is this country's strong suit. We have good soldiers who are well equipped and well led. There is room for improvement in all aspects of the tactical level of war, of course, but on the whole this country has great tactical strength. It has always been a part of our doctrine, and has always received the most emphasis.

We have plenty of good musicians, each skilled in his own instrument, but do we have an orchestra? No matter the skill of the individuals, an orchestra is only as good as its conductor. The conductors of the Army are those middle and senior grade officers—large unit commanders and their joint staffs who will orchestrate the tactical fighting elements...
through military campaigns to achieve military objectives in support of strategic goals.

In a recent article entitled "Training for the Operational Level," LTC Holder says that, "Over the years we have watched operational levels of command disappear. . . . joint training programs [have slipped] almost out of existence." Tactical jobs were more desirable than corps and higher level assignments, and joint operational assignments were treated with disdain by officers with the greatest demonstrated potential. "Our schools have not troubled themselves too much with campaign studies until very lately, nor have we made time for or encouraged professional reading in large unit operations in the officer corps. In sum, we have to recover a lot of ground before we can convert the ideals of doctrine into a real operational capability."

Holder echoes what most of the current writers suggest. He says that "only when we have taught the principles of operational art to our leaders and staff officers and trained the force in its practice" will we see real effect from this momentous change in our doctrine.

If operational art is as important to winning as FM 100-5 says it is, and if FM 100-5 is "the most important doctrinal manual in the Army" as General Richardson, TRADOC Commander, claims it is, then surely one of the most hotly debated questions facing Army leadership today should be, How do we teach operational art to our officers?

It is clearly not a hotly debated subject. On the other hand, it is not being ignored. Recent graduates and students at the staff and war colleges can no doubt provide a very good definition of the operational
art. Moreover, they can cite the operational principles which are the same as those for tactics. All can provide in some detail the example of MacArthur at Inchon as a classic of the operational art in action. Selected students at the School of Advanced Military Studies get even more on the subject. But, I suggest that only the military history enthusiasts can go much deeper into a discussion of the art. Within the current curriculum constraints this is about all that can be expected, but even this is a major step forward. Four years ago who had even heard of the phrase?

Our schools recognize that the time spent in the schoolhouse is not enough. Here is a sample of what the War College says:

In a "Special Text" on the "Operational Level of War" prepared by the Army War College, the Chief of Staff says that because "we should become more expert in these most essential subjects of our military profession." the Special Text is being distributed throughout the Army. In the preface, the editor says that "There are not enough hours in our duty days in our various jobs nor formalized schooling to master the vastness (of the) art of war. Thus, our only recourse must be through a self-education process." Professional reading is the implied principal vehicle for this "self-education" process.

Before returning to the thesis of this article, "You can't get there from here," let me briefly sum up where we are. Competent warfighting at the tactical level will not, alone, win wars. It is only with competent warfighting at the operational level as well as the tactical level that wins. Our whole system of officer accession, basic and advanced schooling,
multiple tactical unit assignments, tests, ARTEP's, National Training Center, CPX, FTX, terrain walks, CALFEX, etc. institutionalizes the development of competent tactical warfighters. And we do it well. But what is the system to institutionalize the development of competent operational warfighters?

Obviously it is a system in transition because the concept is so new to us. The system, however, does appear to have taken on some shape and direction. Staff and war college curricula address the concept in some detail. Augmenting college instruction there only appears to be a renewed emphasis on self-study. The military student and reader have been inundated with famous quotes from famous people to prove the importance of self-study. My favorite, and one of the more popular quotes being used to sell self-education is...

"Until you learn how to teach yourselves, you will never be taught by others." J.F.C. Fuller.

By its emphasis on self-education the Army concedes that, however important, its schoolhouse instruction is not enough. If the Army's goal is, as it should be, institutionalizing competence in the operational level of war, then the question becomes, Will voluntary participation in some kind of self-education program accomplish the goal? I say no, but let us develop this argument a little further. Assuming for the sake of this discussion the best case—that all field grade officers are highly self-motivated to teach themselves the real art of the operational level of war (a desirable state of affairs, but clearly not reality), how does the Army propose they go about it?
General Richardson says we do it by "thoroughly and systematically searching military history while simultaneously scanning the future for new technology and new concepts." LTC Holder says we do it, "Only through mastery of military history and theory. . . . The individual responsibility for this development will continue throughout the officer's career." I could not agree more with both of these visionary officers who represent the quality of both the Army's senior and mid-grade leadership. The disconnect comes between what they say and what the Army is doing.

The operative words from General Richardson and LTC Holder are, it seems to me, "systematically searching" and "mastery." The War College's "Special Text" on "Operational Level of War--Its Art" is several hundred pages long and, in its preface, states that "No one volume of readings could begin to cover the many facets of operational art. This is only beginning. We, therefore, hope to stimulate your interest in and study of operational art in practice as you pursue self-education in this area." For the busy but dedicated officer this text represents a week or two, at least, just to read--a year, perhaps, to study systematically and master. Suppose, now, that all field grade officers spend the prodigious amounts of nonduty time required to study systematically and master this book and all of its future editions, will the US Army have in, say, five years a group of operational level officers skilled in the art? The answer I believe is no. We will certainly have a corps of officers who are more widely read and articulate in military matters. Their perspectives will be broader; their depth of understanding and clarity of vision will be enhanced. They will be better officers and even better operators, but
they will not have learned, really learned, the operational art. To paraphrase a couple of catchy phrases from my associations with the Army's Inspectors General, these officers have studied a mile-wide field to a depth of one inch, maybe even a foot. It is my belief that real learning of the art will only take place through inch-wide, mile-deep study.

A dust-covered book found in the Military History Institute will help illustrate my point. The title of the book is *The Franco-German Campaign of 1870*. It is a "source book" printed by the US General Staff School, Fort Leavenworth, in 1922. The book is over 700 pages of translations of the actual documents, maps, charts and messages of both the combatants. The material deals only with the planning and execution of movements of corps, armies and groups of armies. Tactical material was omitted. With this book it is possible, in a week of intense work, to realistically reconstruct the critical opening weeks of the Franco-Prussian War of 1870. It is possible to cast yourself alternatively in the roles of the opposing commanders to see the situation as they saw it. You see only the fragments of the often conflicting information available to the commander at the time crucial decisions were made, opportunities taken or missed. You know the state of training and morale of your soldiers, their weapons capabilities, your logistic constraints, the capabilities of subordinate commanders. You know the enemy and the terrain. In other words, with work, and a lot of it, you can get inside the mind of the commander, see the situation about as it really was, and make judgments as to what you should or should not do. The object is to train your intuition and your instincts.
These things cannot be learned just by reading. As anyone who has put together a 1000 piece puzzle can tell you, you cannot find where an obscure piece fits just by "reading" the puzzle picture. You find where it fits by studying the nuances of color, detail and shape of the piece and the puzzle. After you are well into the puzzle, many pieces are fit by sheer intuition alone. The more puzzles you do the quicker your intuition about color, detail and shape develops.

I did an exercise similar to that suggested by the Fort Leavenworth "source book" on the Franco-Prussian War. It took about 60 hours. When I finished, I was convinced that if the French had had a commander with even average skill in operational art, at best they could have stalemated the overwhelmingly superior Prussian Army. At worst they could have delayed the Prussians long enough to have mobilized additional forces, and who knows what kind of political forces might have come to play in a long, drawn-out struggle. As it was, the war for all practical purposes was over in four weeks. Emperor Napoleon III had surrendered; the French Army of over 300,000 soldiers were casualties, prisoners, or bottled up in fortresses under siege. The course of European history was fundamentally changed, and the stage was set for the great wars of the 20th century.

What would the original Napoleon have done, or for that matter, what would I have done with 300,000 soldiers? I now know what I would have done. I felt it intensely; I even dreamt about it for weeks after that exercise. It became, surprisingly, an emotional experience. At times I felt like I was no longer a spectator in the war but a participator. More about this experience later.
I got the idea for the exercise from a recent journal article entitled "Thinking at the Operational Level." In it the author suggests a methodology for learning the operational art, and in my view, gives substance to those operative words spoken by General Richardson and LTC Holder, "systematically searching" and "mastery." He invokes the wisdom of many of the great military captains and thinkers such as Frederick the Great, Napoleon, Clausewitz, and Moltke and suggests that if it worked for them it "is probably still valid." The essence of the article can perhaps best be described by a quotation he attributes to an English military critic. The critic is describing Field Marshal Helmuth von Moltke's 1862 history of the 1859 Italian Campaign, which was written for use in instructing students of the "kriegsakademie"--roughly the Staff and War Colleges of the German General Staff. Moltke was the "akademie" director. The critic writes that Moltke's history

... is a model of ... positive criticism. At every stage the writer places himself in turn in the position of the commander of each side, and sketches clearly and concisely the measures which at that moment would, in his opinion, have been the most appropriate. This is undoubtedly the true method of teaching the general's art, and the best exercise in peace that can be devised for those who have acquired its mastery. 

This quote comes from Spenser Wilkinson's 1890 classic on the German General Staff--The Brain of an Army--a book which Elihu Root acknowledged played an important part in the creation of the Army War College.

Moltke's own words in the preface to this history are equally instructive. The object of the history is, he says,
to ascertain as accurately as possible the nature of the events in Northern Italy during those few eventful weeks, to deduce from them their causes— in short, to exercise that objective criticism without which the facts themselves do not afford effective instruction for our own benefit.\textsuperscript{15}

Napoleon also describes very plainly the reason why the field grade officer must, in addition to professional reading, probe the depths of history in meticulous but potentially illuminating detail. He says...

Tactics, the evolutions, the science of the engineer and artillerist can be learned in treatises much like geometry, but knowledge of the higher spheres of war is only acquired through the study of the wars and battles of the Great Captains and by experience. It has no precise, fixed rules. Everything depends on the character that nature has given to the general, on his qualities, on his faults, on the nature of the troops, on the range of the weapons, on the season and on a thousand circumstances which are never the same.\textsuperscript{16}

Frederick the Great had similar thoughts. He cautioned his officers not to be content with memorization of the details of a great captain's exploits but "to examine thoroughly his overall views and particularly to learn how to think in the same way."\textsuperscript{17}

Thus, it seems to me, there is ample testimony of the great value of intimate study of military history to the professional soldier of today. There is also danger in not studying in this fashion. FM 100-5 contains excellent and well grounded theory about how to fight. The basic tenets of AirLand battle—initiative, depth, agility, and synchronization—are discussed. The dynamics of battle—maneuver, firepower, protection, leadership—are described. The US Army's nine principles of war are listed and defined. While few would question the validity of these theoretical concepts of warfighting, the danger lies in unskilled application of
theory to practice. There are so many variables in war that no two operations will ever be exactly the same. It follows, then, that no two individual applications of some principle or rule will produce the same result. A German historian of the late 19th century observed, "It is well known that military history, when superficially studied, will furnish arguments in support of any theory or opinion." The danger lies with the operational commander and his staff who are well read but unexperienced in combat. However competent their judgment, their intuition and instincts are untested. They may be easily betrayed into placing too great a value on theory to produce victory. In his classic, The Conduct of War, Baron Von der Goltz talks about the value of experience:

It is a remarkable yet explicable phenomenon, that precisely in those armies where the commander is afforded the fewest opportunities to acquire practical experience, the number of those is great who imagine that they were intended for generals, and who consider the practice of this vocation easy.

But in the school of golden practice such impressions are, of course, quickly rectified through experience of failure, difficulties, and misfortune.  

One final note on the subject of experience before moving on to how to acquire combat experience in a peacetime Army. B. H. Liddell Hart in his book Why Don't We Learn From History? has this to say about what history can teach us about experience: (emphasis added)

It lays the foundation of education by showing how mankind repeats its errors, and what those errors are. It was Bismarck who made the scornful comment so apt for those who are fond of describing themselves as 'practical men' in contrast to 'theorists'--'fools say they learn by experience. I prefer to learn by other peoples experience.' The study of history offers us that opportunity. It is universal experience--infinitely longer, wider, and more varied than any individual experience.
What the US Army has is a new (to the current officer generation) warfighting concept--operational art. It is a fundamental concept of the AirLand Battle doctrine. It is the skill required to fight at the operational level of war, and it is a skill without which we cannot expect to win. It is a skill that requires, in addition to technical competence, a quality of judgment, intuition and instinct that can be developed only through combat experience. We have no way, and we hope never to have a way, to gain such experience through actual combat. Wars are not provided for training and few leaders in war get a second chance. Therefore, if we are to be able to develop leaders skilled in the operational art we must find a way to approximate, as closely as possible, the experience of combat. We can do this through the systematic study of military history.

Another recent military journal article will help illustrate my point. "Jackson's Valley Campaign and the Operational Level of War," written by three former War College students, approaches the kind of learning experience I am talking about. Not for the reader, of course, though it is an excellent work and instructive as to what operational art is. The authors, themselves, who walked the actual ground and carefully traced the campaign step-by-step are, I suspect, the real winners. I have not spoken to them, but such careful research backed up by on-the-ground reconnaissance must have provided insights into the operational art that the reader of the article will not be able to acquire. The professional benefit to the authors must surely be an order of magnitude greater than to the readers.

Earlier I described an exercise I did using the Franco-Prussian War. The object was to get so intimately familiar with the situation that I
could actually picture myself as the commander on the ground, where I could see the situation develop approximately as he might have seen it. It was very similar to any of a number of war games I have played with the crucial exception that with detailed preparation I felt a part of the action. I felt pressure, frustration, anger, impatience. I made good decisions and I made fatal decisions. It was by far the most instructive academic experience in the art and science of war that I have ever had. Even though I could not hope to teach the reader the lessons I learned by this exercise—the reader must teach himself these lessons—I will attempt to describe the nature of the lessons in the operational art that can be learned from this kind of study. They are lessons, I believe, that cannot be learned in any other manner, and especially not by just reading about the war. Even reading historian Michael Howard's excellent history, The Franco-Prussian War, will not produce the instructional value that a step-by-step, thoughtful reconstruction of the war will yield.

This is how I went about it. I studied translations of original documents such as message traffic and correspondence, G2 estimates, march tables, maps, operation plans, newspaper reports, eyewitness accounts, and to a limited extent, official and unofficial histories written soon after the war to fill information gaps in the primary sources. (Literally, hundreds of volumes are available for study on every conceivable aspect of the war.) Using these documents I reconstructed day-by-day, the events that occurred between mobilization in mid-July 1870 through the first battles in early August to the defeat of the French Army at Sedan on 1 September 1870. I concentrated on the French forces in the period
27 July - 3 August 1870, just prior to the outbreak of hostilities, when the opportunity for the initiative was equally available to both forces. I arrayed both forces, in turn, to corps level and studied everything I could find about the corps and armies status of mobilization, state of training, commanders' personalities, logistics support, morale, weapons, and lines of communication. I also tried to determine as accurately as possible what the opposing commanders knew about the enemy and friendly situations, when they knew it and what they did with available information.

It was tedious work at first, but after getting deeply involved the exercise became very interesting. Advantageous and dangerous situations sometimes jumped out at you. More often, however, there was great confusion and uncertainty on both sides, although more so on the French than the German side. I looked for moments when important decisions were or could have been made and asked myself what I would have done under the same circumstances. I then examined whether what I would have done was supportable in terms of logistics, lines of communication, forces available, terrain and chances of success versus risks incurred.

For instance, on 1 August 1870, the French had more than 3 corps, about 130,000 men, which were sufficiently ready for war to have taken a limited offensive against the flank of the 3d Prussian Army, the southernmost Army in the Prussian array of forces. A limited objective attack could have been launched by 3 August, with a very reasonable chance of success in my view. The objective could have been to convince the Prussians that an attack through the southern flank of Germany was in progress. (Such a grand plan was, in fact, proposed.) Positive results might have been an early French
tactical victory which was badly needed for political and morale reasons and repositioning of 1st and 2d Prussian Armies if the deception worked. In any event, significant disruption of Prussian plans and mobilization progress could be expected, and an element of uncertainty as to French capabilities and intentions imposed on the minds of the Prussian leadership. Additional time for mobilization would probably have been provided as the Prussians reacted to the French "invasion." Even if defeated in battle the French had a protected southern flank and avenues of withdrawal making the risk of destruction of the French Army remote. They would certainly have succeeded, to some degree, in altering Prussian plans.

The value of this and numerous other "what if" analyses in this exercise lies not in what the student is taught but in how he is taught. It is the decisions of the operational level leader that ultimately determine success or failure of an operation. All of the frictions, luck, and misfortune of war are set in motion, directly or indirectly, by the implementation of the commander's decisions. It is simple—the better the decision the better the chance of success. This type of exercise improves the student's capacity to make decisions.

Instead of reading about or being told that in war information is often confusing and conflicting, the student grows accustomed to "working" in this type of environment. Through these experiences he gains a certain familiarity with war by his vicarious participation. His already keen intellect acquires an enhanced ability to penetrate the "fog of war" by actually having to do it. By "firsthand" experience the student acquires an enhanced level of understanding of such important considerations as ammunition resupply,
reconstitution of reserves, reconnaissance and good maps, space required for maneuver, fire support, the time it takes to concentrate large forces, and so forth. His appreciation of the value of strong reserves, the initiative, freedom of maneuver, synchronization, deception, surprise, and so forth, is given added substance by "seeing" value rather than by simply being told such value exists. In the same way his shortcomings will be highlighted and techniques to compensate devised.

A leader's perspective is made more reasonable and is broadened by "living" the experience of others. History will not and cannot give us ready-made answers to problems. Situations will never be the same. But the leader whose intellect has been enriched by a systematically cultivated perspective derived from sharing the experience of others will be more likely to make sound decisions. He will be able to confront a complicated situation filled with uncertainty and risk and more readily discover the best way to achieve the objective.

Colonel G. F. R. Henderson was probably the greatest proponent of this method of learning the operational art. Henderson thought little of most of the military texts of his day. He felt that they "stressed principles at the expense of the 'spirit' of war ... moral influences ... (and) the effect of rapidity, surprise and secrecy."  

Henderson says in one of his books on war training:

The principles [of war] are few in number and simple in theory; they are ... the guiding spirit of all manoeuvres,... but if there is one fact more conspicuous than another in the records of war, it is that, in practice they are as readily forgotten as they are difficult to apply. The truth is that the ... maxims and ... regulations which set forth the rules of war go no deeper than the memory; and in the excitement of battle the memory is useless; habit and instinct are alone to be relied upon.
The above passage and the one that follows are from Henderson's book, The Battle of Spicheren—a classic which should be on every soldier's bookshelf. Leading with famous words from Clausewitz and ending with words from Baron Von der Goltz on the subject of generals, he says:

"In war all is simple, but the simple is difficult.'

... Without practical experience the most complicated problems can be readily solved upon the map. To handle troops on manoeuvres ... is a harder task; but its difficulties decrease with practice. But before the enemy where the honor of the nation and the judgement of the present and of future generations are at stake, where history is making and the lives of thousands may be the cost of a mistake, there, under such a weight of responsibility, common sense, and even practised military judgment find it no simple matter to assert themselves. 'Very frequently,' says Von der Goltz, 'the time will be wanting for careful considerations. Sometimes the excitement does not permit it. Resolve, and this is a truth which those who have not seen war will do well to ponder over, is then something instinctive.'

Du Picq, Napoleon, Frederick the Great, Moltke, Liddell Hart, Clausewitz, Henderson, Von der Goltz all said it better than I can say it. If we want to be good at warfighting we have to learn to think at the operational level. We have to train our minds, hone our instincts, sharpen our intuition by getting as close as possible to the real thing. Nothing else will work. Reading, no matter how voracious and no matter how important, is not enough. Increases in schoolhouse hours, no matter how great and no matter that a few years ago there was nothing, are not enough. The Germans have a word for it, fingerspitzengefühl. It means, roughly, a feeling in the fingertips. We Americans have a corollary: "I can feel it in my bones." You cannot teach it—you can only learn it. Perhaps this is what
J. F. C. Fuller really meant when he said: "Until you learn how to teach yourselves, you will never be taught by others."

CONCLUSION

If the US Army expects to win the next war, then it must train for war in peacetime. For the tactical levels of warfighting the Army has in place functioning, effective systems in the schools and in the field to institutionalize tactical excellence. Even the Army's series of field manuals on training (FM's 25-1 thru 25-5) are devoted entirely to training at the tactical level. FM 25-1, Training, the Army's training philosophy, is, significantly, dated February 1985, and should be entitled "tactical training." To institutionalize excellence at the operational level of war, no such comprehensive system exists. No system at all exists to teach the subjective qualities of the operational art—judgment, instinct, intuition, fingerspitzengefühl—qualities without which our operational leaders and their staffs are not likely to be successful in the early stages of the next war. Then it may be too late. Secretary of Defense, Caspar Weinberger, warns that in the interest of national security we cannot afford the luxury of on-the-job training. (Emphasis mine.)

An important lesson derived from past wars is that actual military engagements develop quite differently from what had been expected....

Since a future war may not be of sufficient duration to permit much learning, we must study carefully the lessons of those armed conflicts that do occur ... for clues about tactics and operations.24

There are two aspects of the operational art which must be taught. One is the mechanical or scientific aspect. These are the skills and
procedures required to supply, maneuver and manage large forces over large, often populated areas; the apparatus to acquire sufficient intelligence data upon which to act; and the command, control, and communications to bring it all together and enable it to work. LTC Holder's article on "Training at the Operational Level" offers workable, systematic solutions to this half of the operational art training problem. The other half of the problem, in my view the more important half, is how operational level leaders and their advisers are taught what maneuver might work and what won't, what's important and what's not, when to strike and when not, what's too much and what's not enough. Without leadership with practiced judgment and well developed instinct and intuition capable of making the right decisions, even the most highly refined operational machine may go charging off in the wrong direction. When "the honor of the nation and the judgment of the present and future generations is at stake, where history is making and the lives of thousands may be the cost of a mistake," we cannot afford to go charging off in the wrong direction.

With AirLand battle doctrine comes a new training imperative for the US Army: to teach all officers how to teach themselves lessons that otherwise can be learned only in wartime. I suggest a multi-level and multi-pronged approach involving officer schools from the basic courses through the war college, individual study, operational level terrain walks, and specialized wargaming.

**Officer Schools:** All schools should require each student to complete one or more historical studies (roughly 40 hours each) similar to that described above and not unlike those accomplished by officers of the German
General Staff under Moltke and by US officers of the staff and war colleges before World War II. At the basic and advanced course levels the study should be tactical. Such a study would not only be immensely instructive but would also teach young officers how to teach themselves. At the staff and war college levels there should be a minimum of two studies, each oriented on the operational level. It is critical that all studies be individual effort, and there must be oral and written feedback and evaluation mechanisms provided. Academic reports should note performance with emphasis on depth and quality of understanding of the operational situation and options, not school solutions. Students who give the study shallow treatment can easily be identified by careful questioning.

**Individual Study:** Annually, when not in one of the officer schools, each officer should complete a study similar to those conducted under school supervision. A written report and feedback would be provided to the proponent (either branch school or TRADOC directorate) which provided the individual study packet. Again, quality of performance should be noted on evaluation reports. Local commanders will have to provide time for the study and written reports should be routed through them.

**Operational level terrain walks.** There should be field grade and general officer level terrain walks (actually flights and drives) over the actual terrain of important historical operations. These would be in addition to current operational terrain walks now conducted by the forward deployed Corps and Armies. There are many accessible locations in the States, Europe and Korea. Guide packets would be prepared by the proponent and terrain walks conducted by Corps or Army level "experts." Extensive individual preliminary preparation would be required and before,
during and after operation briefings would be presented by the participants. Ideally, these terrain walks would be over terrain where previously studied campaigns and operations occurred. (It is interesting to note that the War College Class of 1936-1937 was given a full month to prepare for a terrain walk.)

Specialized Wargaming: While much can be learned from historical campaigns, the nature of future warfare will be very different. Applicability of historical lessons to current warfighting is, therefore, limited in greater or lesser degrees depending on the campaign studied. Hypothetical scenarios based on updated versions of earlier campaigns, providing the same level of background and detail, would have to be developed. A variety of realistic, stressful campaign simulations could be created and played annually by senior officers individually or in very small groups at centrally located wargaming sites. Feedback and evaluation for-the-record will again be critical.

These suggestions, or similar proposals, will not be cheap or easy to develop. Neither will it be easy for senior officers to find the time--two or more weeks per year when not in school--for systematic study leading to mastery of the operational art. However, if we are going to institutionalize excellence in the operational art as we have in tactics we have to do a lot more than provide a few hours' instruction in our schools, reading lists, and voluntary self-study programs. There must be a structured, intensive and comprehensive training program with frequent evaluation that has significant promotion impact.
If we prefer, like Bismarck, to learn from other peoples' experience, then we should learn from the German experience. Readers of DePuy (A Genius for War) and van Creveld (Fighting Power: German Military Performance 1914-1945) are quickly convinced that the German armies of World War II, and the hundred years preceding that war, were in their time the finest fighting forces in the world by any standard. "Masterpieces of the military art..." was the way van Creveld described German Campaigns of World War II. DePuy says that "performance comparable to that of the German armies ... can be found only in armies led by such military geniuses as Alexander, Hannibal, Caesar, Gustavus Adolphus, Genghis Khan and Napoleon." The Germans' secret, that phenomenon that separated the German Army from all others in excellence, was the German General Staff, and "the special qualities of professionalism that differentiated that General Staff from imitations in all other nations."

One of the principal components of the German General Staff development process, and the institutionalization of military excellence which the General Staff accomplished, was an intense emphasis on the study of military history. Staff officers wrote about the significance of military history, and "they invariably emphasized the importance of history for acquiring the theoretical foundations for military science, and for gaining an understanding of human performance in conflict situations."

The German Army institutionalized excellence in large part by emphasis on the study of military history and that is an experience from which we should learn.
Another principal component of the General Staff development process was examination. Evaluation as a prerequisite to promotion required German officers to 
study the profession seriously and contributed to a higher quality of "professional understanding and performance throughout the entire Army." In order to institutionalize excellence in the operational art, systematic operational studies impelled by meaningful evaluation are the only way.

As the US Army and its AirLand battle doctrine mature together, it is without a laboratory of actual warfighting experience. The only way to gain such experience is to appropriate the experiences of others and to learn from them. With small armies, like Napoleon's, the wellspring of such experience could reside in the head of one or just a few. In large armies like the German Army of World War II or the American Army of the 1960's and 1990's, the wellspring of experience must reside in the heads of many. We cannot make AirLand battle doctrine work the way we are going about it now. The operational gap between military strategy and tactics is too large and too important to be filled with current training philosophy and practice. You can get there from here if the need for major change is recognized and progress toward change is forthcoming.

We deter war by being ready to fight and win the war. Skill in the operational art is the bedrock of winning. The potential Napoleons and Pattons in our Army today might emerge given a long enough war. But we may not have that kind of time. Unless we can institutionalize excellence in the operational art, we will be ready to fight, but we will not be ready to win.
The assistant commandant's introduction to the Army War College's
"Conduct of War Course" of 1936-1937 tells us how we can be ready to win.
In his challenge to the students, who are going to have to produce about
100 typed, single-spaced pages of historical analysis during the last
four months of the school year, he says:

By the reading and study of history we expand our experience, our possibilities for discovering a satisfactory answer, by taking unto ourselves the experiences of the great commanders of history. Pericles ... said it in his funeral oration: 'The whole earth is the sepulchre of famous men and their story is not graven only on the stone over their native earth, but lives on, far away, without visible symbol, woven into the stuff of other men's lives.'

Give us something we can weave into the stuff of our lives.
ENDNOTES


4. Ibid., p. 7.

5. Ibid., p. 7.


8. Ibid., p. v.

9. Richardson, p. 5.


13. Ibid., p. 5.


16. Luvaas, p. 2.

17. Ibid., p. 3.


21. Luvaas, p. 5.


23. Ibid., p. 294.


27. Ibid., p. 302.

28. Ibid., p. 304.

29. Ibid., p. 303.

END

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