STRATEGY RESEARCH PROJECT

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PROFESSIONAL EDUCATION: KEY TO TRANSFORMATION

BY

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Professional Education: Key to Transformation

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ABSTRACT

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The Army, as an institution, must face up to the new challenges of the 21st century and transform professional education with the same urgency and energy it is applying to develop the Objective Force. The post Cold War expansion of the Army's professional jurisdiction has created a gap between the knowledge that officers receive during their professional military education, and the professional knowledge that they need to effectively complete the missions they are being assigned in today's complex environment. Traditional warfighting proficiency must be combined with these additional skills if our Army is to remain the world's premier fighting force. Technology alone cannot fill the gap or provide the dominance required to win. This paper looks at the strategic environment, and emerging challenges that demand changes in the officer professional military education system. It examines the Army's current approach to officer education, and makes recommendations to bridge the gap between the Army's professional authority and the level of professional knowledge they have to apply to their work.

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PROFESSIONAL EDUCATION: KEY TO TRANSFORMATION

> Training and education are the heart of the profession of Arms and have a profound implications for the warfighting abilities and long-term posture of our military forces.
>
> —Gen Carl Vuono

Four years ago in Bosnia-Herzegovina, a US Army captain and his platoon leaders were given the mission to protect and hold a bridge, a critical terrain feature at the epicenter of the three-way ethnic conflict in Bosnia. Their mission was clearly tactical in nature: physically guard and hold the bridge; do not allow it to fall into the hands of any of the ethnic factions. Surrendering the bridge would give the side that controls it a new and distinct advantage in comparison with its adversaries. Failure to hold the bridge could upset the tenuous peace that had recently been established and was being enforced by NATO forces. It could put the entire peacekeeping mission in jeopardy. Destroying the bridge to prevent its capture was not an option-that would undermine the overall effort and the goal of economic reconstruction and development. The tactical mission had significant strategic implications, a situation dramatically different from that confronting junior officers even as recently as the Gulf War. If the unit didn't accomplish its assigned mission, that could lead directly to strategic failure.

FIGURE 1 CAPTAIN WITH HIS LIEUTENANTS

The captain and his lieutenants were given a second piece of guidance that had been reinforced during weeks of pre-deployment training (Figure 1). They were to avoid the use of deadly force if at all possible. According to the rules of engagement, the soldiers could shoot to kill if they believed their lives were in danger, but they were discouraged from being quick to shoot. The chain of command wanted to avoid a shooting incident, fearing that broadcast images of dead or injured civilians shot by NATO peacekeepers could undermine the fragile political and public support for SFOR's mission. The officers were also told to avoid US casualties. The American public would not tolerate another Somalia or Beirut, and so a platoon of dead GIs could also lead directly to strategic failure.

Imagine what the platoon leaders must have thought, then, when the unit came under assault by ethnic Serbs. A mob of civilians-many of them women and elderly men-gathered and

marched on the position, trying to force the American soldiers aside. The confrontation became violent. The mob began to hurl rocks, bricks, Molotov cocktails, and other debris at the soldiers in an attempt to take over the bridge. Incited by ringleaders in the rear of the crowd, the mob next attacked the Americans by swinging long boards that had spikes driven through the ends. The Serbs were able to swing the boards over the rows of protective concertina wire and injure the American defenders. The platoon leaders called urgently for reinforcements, and the soldiers did all they could to hold the bridge without shooting the attacking Serbs. But no reinforcements could arrive in time, the violence continued to escalate, and the American position became more tenuous. The young officers had to decide whether to fire on the attacking civilians, withdraw from the bridge, or continue to hold while risking serious injury or death to their soldiers.[1] What should they do?

More important from an institutional perspective, what had the Army done to prepare the officers for this situation? What did "right" look like? Were these officers making a tactical, operational, or strategic decision? Were they in reality making all three?

Today's leaders at the lowest level are and will continue to make potentially tactical decisions with strategic consequences as they carry out increasingly complex missions in a significantly expanded professional authority (Figure 2). In addition to traditional warfighting, today's Army leaders from top to bottom must be able to deal with the increased political and cultural complexities of peace operations, stability and support operations, humanitarian operations, forward presence and engagement, homeland defense, and more. As General Shinseki, Chief of Staff of the Army, observed of his command in Bosnia, "It's the most difficult leadership experience I have ever had. Nothing quite prepares you for this."[2] So, what do we need to do to prepare our future Army leaders?

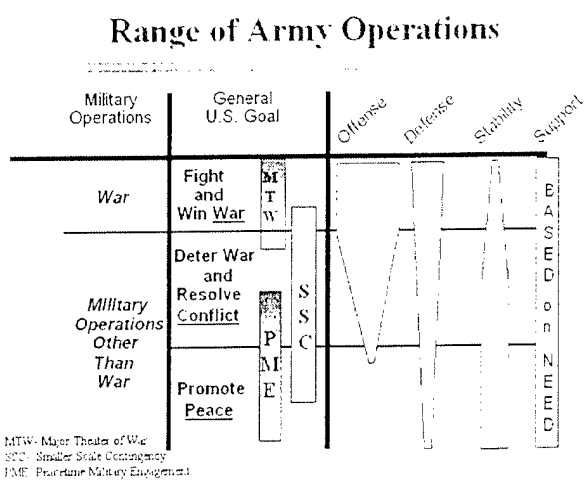

FIGURE 2. ARMY OPERATIONS

As the Army transforms to meet emerging security challenges, and ponders on new weaponry, formations, doctrine and training, it is imperative that they also transform the human dimension and examine and adjust the knowledge base to educating officers.[3] The new contemporary operational environment, with unknown, poorly defined and asymmetrical threat elements, combined with a standing requirement to operate successfully across the full

spectrum of operations, has produced new challenges for tomorrow's leaders. This new environment requires that the Army's officer education system transform to meet the demands of the expanded professional authority by increasing the base of professional knowledge that it teaches to its officer corps in order to close the gap between knowledge and expected performance.[4]

First and foremost, the professional Army officer must continue to be firmly grounded in the fundamentals of tactics, technology, officership, and leadership.[5] Second, while they need to be familiar with the latest scientific and technological advances, and how to apply to the profession of arms, they must also have an understanding of the geopolitical realm. They have to be conversant with the complexities of world politics as they are with the tools of modern warfare. Third, officers will need to have a better understanding of basic strategic concepts earlier in their careers, with a continuing emphasis on it as a component of an officer's education throughout his or her career. This will provide officers a strong intellectual foundation, a solid grasp of the tools at the strategic level, and real-world experience by the time they reach position of senior leadership.[6] This focus expands officer education into the art and science of conflict and help cultivate the Army's new enduring strategy-based leadership competencies of the 21st century: adaptability, and self-awareness. These new and stringent requirements for our future military leaders mean we must educate them on a wide range of subjects and guiding principles throughout their careers by instilling a notion of "lifelong learning" to the profession (Figure 3). A transformed education system would establish a glide-path for officers strategic growth, gradually increasing strategic education from pre-commissioning training through the Army War College and beyond.[7]

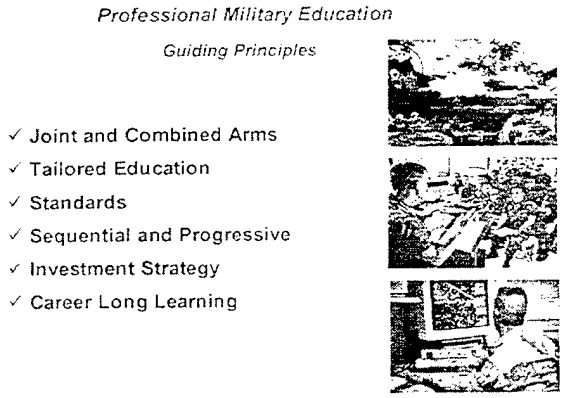

FIGURE 3 BUILDING PRINCIPLES

This new concept will place creative thinking skills, at the same level as operational and tactical skills by implementing a continuous, progressive, and sequential process that embeds the skills, knowledge and behavior characteristics necessary to execute the missions across the full spectrum of operations. This investment in educating and building our future leaders is crucial to meeting the new security requirements.

This paper will look at the strategic environment, and emerging challenges that demand changes in the officer professional military education system. It will examine the Army's current approach to officer education, and make recommendations to bridge the gap between the Army's professional jurisdiction and the level of professional knowledge they have to apply to their work.

THE RISK OF COMPLACENCY

Some may take comfort in the fact that our forces displayed overwhelming superiority during our most recent combat experience, Operation Allied Force. America's high-tech preeminence was indeed showcased in 1999 as we selectively destroyed key targets in the Federal Republic of Yugoslavia, forcing Slobodan Milosevic to capitulate and agree to NATO's terms. The United States, as the clear leader of the NATO alliance, used its growing technological edge in key areas; such as, secure communications, precision munitions, and electronic warfare-to completely dominate the battlespace. This, along with a coherent multinational strategy, was directly responsible for our ability to end the conflict quickly, with minimal combat loss of US service members. Allied Force serves as a significant data point, adding to the record of success achieved nearly a decade earlier in Operation Desert Storm. Both operations emphasize the tremendous synergy that we reap when we combine America's technological achievements with a tailored educational program for our military officers. The dollars that our nation invested in educating the leaders of Operations Allied Force and Desert Storm paid off in terms of the strategy and the operational concepts that our men and women in uniform followed to victory.[8]

Gratifying as these previous results may be, there is no guarantee that we will be able to replicate our performances in Allied Force and Desert Storm unless we continue to press forward with an aggressive education plan. This plan must be designed to expand the knowledge envelope that will, in turn, lead us along the path to military transformation. We cannot afford to sit still and wait for others, friend or foe, to catch up. Instead, we must continue to pursue new technology, while at the same time challenging ourselves to a strategy of life-long learning.

To put it simply, we must provide our future leaders with the best possible education in the military art, and other related fields, to make certain America retains its preeminence on tomorrow's battlefields. Education will likewise provide the intellectual capital required to transform today's outstanding armed forces into an even more capable Future Force-a force that will protect our nation's global interests in the decades ahead. This investment in educating

our people and building future leaders is crucial to meeting our future security requirements. It is an investment we must not fail to make.[9]

Military transformation of our forces is, therefore, an imperative if we are to be ready for the challenges of this new century. But transformation is first and foremost an intellectual exercise, requiring the brightest minds actively engaged in taking our armed forces to new and higher levels of effectiveness. The road to transformation begins with a strong program of education and leader development. This will provide the underpinning for experimentation with new ideas, equipment, and doctrine that will lead to a transformed US military, fully prepared for emerging threats.

THE ROLE OF PROFESSIONAL MILITARY EDUCATION

As we embark on this essential path to transformation, we should remember that our predecessors confronted many of the same issues in the past that we do today. This is certainly true with respect to education and leader development programs (Figure 4). The military has historically invested considerable time, energy, and talent in education and leader development. Senior leaders have long recognized that it takes a quality force consisting of professional, well-trained, and highly creative men and women to harness new technology by transforming organizations and adopting innovative doctrine. This requires a long-term commitment to educational excellence. We cannot afford to be shortsighted because it takes roughly 15 years to develop a joint-qualified officer and 25 years to grow a Joint Task Force commander.

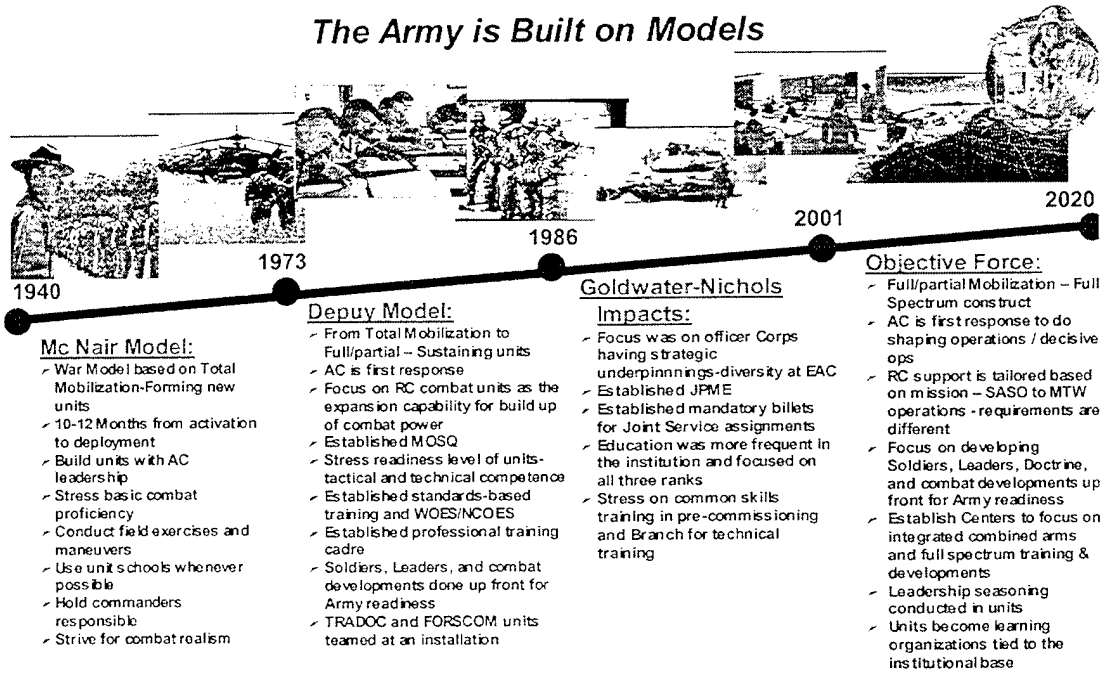

FIGURE 4. ARMY MODELS

Our professional military education (PME) system performs a key role in this leader development endeavor and provides many important benefits to the force. PME programs spark creative, adaptive, and motivated leaders who, in turn, make the entire force more professional and stimulate intellectual development throughout the ranks. Educational systems also serve another important role by helping to meet current readiness requirements. They provide the Army with trained leaders who are well versed in the latest doctrine and warfighting techniques. Leader development plays a similarly important role in anticipating and planning for the future. Our professional military education system provides forums that encourage debate that serves to refine employment concepts for future operations. These PME institutions likewise can promote professional self-development out in the field through outreach efforts, including new distance learning initiatives via the internet.[10]

There are challenges ahead. Despite the obvious advantages derived from our past investments in education and leader development, the pressing realities of fiscal and operational constraints often become roadblocks to progress. This leads to maintenance of the status quo-the path of least resistance. As a consequence, sustaining education and leader development programs must be a priority for our senior leadership. This likewise needs the support of the entire chain of command because commanders at all levels have to be willing to make the right people available for school if we are to succeed with our leader development objectives. As always, there will be friction between the demands of our current operational requirements and the long-term well-being of the force. Sound, mature judgment is called for to strike the proper balance. This does not, however, have to be an either/or proposition. We can turn to history for guidance.[11]

THE INTERWAR EXPERIENCE

Faced with competing demands in the 1920s and 1930s, the nation's military leaders during that trying period had to perform a tough balancing act. They had to garrison posts around the globe with an underfunded and understrength force while at the same time transforming each of the services in preparation for a major conflict-a conflict that was soon to engulf the world. The good news is that they succeeded. The necessary preconditions for this transformation were in place well before Pearl Harbor, thanks to initiatives focused on education and leader development.

During the interwar period, each of the services had to grapple with issues of readiness, retention, modernization, aging equipment, and inadequate infrastructure. Despite the challenges of the moment, each of the services made a sustained commitment to leader

development. This steadfast protection of education during the lean years between the wars later paid enormous dividends during World War II.

In the years following America's precipitous demobilization after the Armistice Agreement of November 1918, meager defense spending produced a severe deterioration in military readiness and combat capabilities. The National Defense Act of 1920, which grew out of the experiences of the Great War, provided an improved organizational framework for the military. Unfortunately, the best intentions of this reform effort were subsequently undercut by successive presidential administrations and Congresses locked in a bidding war to limit military appropriations. As a result, military readiness did not begin to improve until the late 1930s, and only after the Roosevelt Administration and defense advocates, such as US Representative Carl Vinson of Georgia, successfully argued for increased military appropriations.

Though we may characterize the interwar era as a period of relative calm for the military, our small forces still had a sizable number of operational commitments. The Army had to defend US interests in the Panama Canal, the Philippines, and elsewhere. The Navy had to protect maritime sea lanes and access to our overseas possessions. The Marines were deployed for many years in Central America and the Caribbean. And the Army and Navy both shared responsibility for coastal defense.

America was fortunate at that time to have a number of determined, visionary leaders who remained on active duty with each of the Services after the First World War despite the fact that promotions, pay, field and fleet training all suffered. Even though military budgets were sparse during this time, the Services dedicated sufficient funds to continue with the professional education and leader development programs. The Army's senior leaders remained firm in their belief that as the Army became smaller and less capable, professional education would be increasingly important to the long-term health of the service. They stayed the course and continued to develop a cadre of future leaders.

As such, many World War II combat leaders either taught or attended professional military schools, and often did both during the interwar period. For example, while Assistant Commandant of the Army's Infantry School from 1927 to 1932, George C. Marshall undertook a broad revision of its curriculum. Claire Chennault, Carl Spaatz, and Hoyt Vandenberg all taught at the Air Corps Tactical School. George S. Patton and Omar Bradley both taught at Army schools in the 1930s. Furthermore, all these men were graduates of the Army War College. The Navy similarly understood the importance of professional military education. Indeed, attendance at the Naval War College became a virtual rite of passage to obtain flag rank during this period.

It was here, in these educational settings, that the seeds of innovation and transformation began to take root, notwithstanding the difficulties associated with limited military budgets. Remarkably, the interwar period was a time of numerous important military innovations including amphibious warfare, carrier aviation, and strategic bombing. To varying degrees, the Army, Navy, and Marine Corps all relied on their service schools and colleges to examine and experiment with emerging technologies, write doctrine, and help develop and evaluate war plans. This new reliance on war colleges and schools was, in fact, due to budgetary and manning constraints placed upon the staffs of the War and Navy Departments. The Army War College, for example, established a number of student committees that conducted a wide range of staff studies for the War Department, leading to the development of the three-regiment, "triangular" Army division, among other reforms.

Additionally, the focus of study and innovation during the interwar period was influenced primarily by the lessons of World War I, including mass mobilization for war, the avoidance of trench warfare, and the integration of emerging technologies such as the airplane and the tank. Both the War and Navy Departments, aided by the students and faculties at the War and Naval Colleges, also studied possible future threats to America's security. They were especially concerned about Japanese threats to US possessions in the Pacific, to Southeast Asian natural resources, and to the vital shipping lanes in the Pacific. Beginning in 1923-24, presaging the Goldwater-Nichols era of joint emphasis, the Army and Navy War Colleges assisted the Joint Army-Navy Board during a continuous series of war games based on War Plan Orange, the contingency plan for war with Japan.

This led to further study and analysis by the future leaders of World War II as they contemplated inventive approaches to address potential threat scenarios. One of the most important examples of how leader development supports innovation was the Navy's emphasis on creating an effective aircraft carrier force that would extend the range and mobility of combat aviation. The Naval War College played a pivotal role in this effort. Under the prescient leadership of Rear Admiral William S. Sims, the Naval War College conducted a series of strategic and tactical war games that underscored the immense potential of the aircraft carrier. Simultaneously, these games provided critical leader development for naval officers in the tactical decisionmaking process. The Marine Corps, driven by the requirement to provide bases to support naval movements across the Pacific Ocean, seized upon the idea of amphibious assault. Students at the Marine Staff College also played a vital role in the development of this important doctrine, conceived in the early 1920s by Major Earl Ellis. Despite its limited size and

budget, the Marine Corps was able to experiment with amphibious operations in the mid-1920s and again from the late 1930s through the beginning of World War II.

The Army found itself too cash-strapped to conduct much field experimentation with mechanized and armored forces until the end of the 1930s. The intellectual framework for the doctrine essential to field this force was, however, discussed extensively at Army schools throughout the interwar period. Once infused with larger budgets and more manpower, the Army began a series of large-scale exercises called the Louisiana Maneuvers that tested these new concepts. Meanwhile, guided by studies conducted at the Air Corps Tactical School, the Army Air Corps developed the doctrine and the aircraft for strategic bombing, pursuit aviation, and close air support operations.

Through all these intellectual pursuits and subsequent efforts to experiment with new concepts and technology during the interwar era, the military was also developing a new generation of leaders. They were not afraid to "think outside the box" and challenge existing notions about the proper way to conduct a war. This ultimately proved to be crucial to our success in employing sophisticated new weapons and equipment in combat. It is hard to imagine how we would have fared in World War II had these leaders not pursued their visions with determination. Through their efforts, the Services transformed themselves into substantially more effective combat organizations. Thus, the unmistakable lesson from their transformation efforts is the vital linkage between education, leader development, and the fielding of advanced capabilities.[12]

THE EMERGING ENVIRONMENT

In the interwar period, military leaders were able to leverage changes in technology to yield the innovations that ultimately transformed each of the services. Today, we are experiencing an even faster rate of technological change, and like our predecessors in the interwar period, our goal is to harness this change, encourage innovation, and transform ourselves to become a more capable military, ready to meet our nation's future national security requirements.

The interwar era also taught us some important lessons about the value of alliances. We learned that going it alone was not a suitable strategy in the modern world. Today, unlike the isolationist nation of the 1920s and 1930s, the United States is a leading global power-politically, economically, and militarily. Our nation is integrated into the fabric of the global economy, and we cannot afford to ever again chart an isolationist course. This new reality frames and shapes our current transformation plans. America's current alliance structure and

involvement in various cooperative forums are major elements in our determined effort to avoid the tragic lessons of the past. We know all too well what can happen when a lack of preparedness invites aggression, as it did a mere two decades after the carnage of the First World War.

Consequently, our armed forces have devoted considerable attention in this post-Cold War environment to maintaining current readiness so that we will be capable of quickly responding to a crisis far from our shores. As was the case in the interwar period, our high operations tempo, coupled with reduced defense spending, has complicated and slowed our transformation efforts. Near-term demands on our limited manpower compete with the need to educate our future leaders. Simply acknowledging the importance of education is not sufficient. Education must be kept a priority, and it must remain relevant to our long-term objectives, as spelled out in both Joint Vision 2020 and in the Army Vision.

The Professional Military Education system must explore innovative ideas and experiment with pioneering concepts that will enable our nation's military forces to evolve rapidly and adapt to all potential threats (Figure 5). Not only must we prepare for conventional warfare, but also the contemporary operational environment requires that we deal with operations other than war and the new threats posed by nation-states and radical groups both within and outside our borders. They may come equipped with an arsenal of weapons including nuclear, chemical, biological, and radiological weapons of mass destruction. They may also try to intimidate or bully us by threatening our communications networks and power distribution centers.

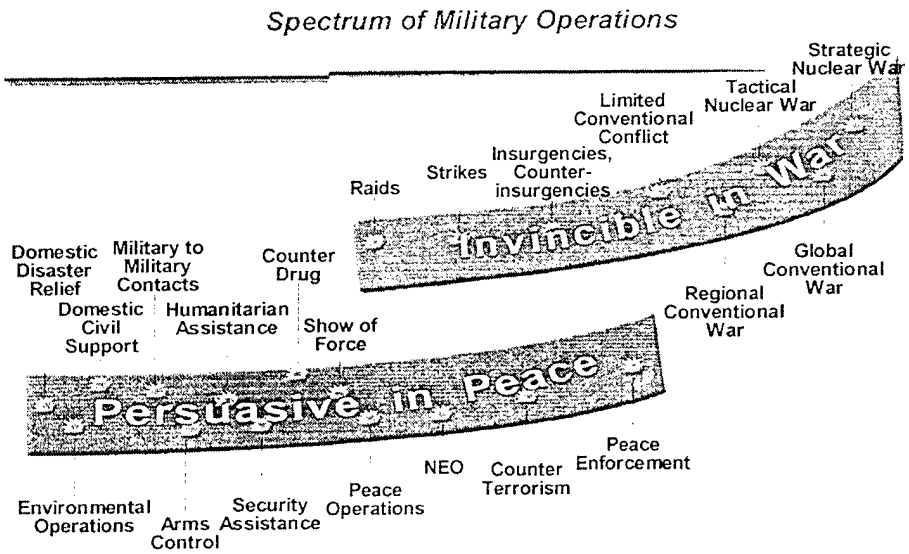

FIGURE 5. FUTURE ENVIRONMENT

Despite the end of the Cold War, the world remains a dangerous place. America's economic power generates envy in many and outright hatred in others. Although America has

no peer competitor, we must remain alert to the potential for a single conventional power, or a combination of forces, that could mount a focused campaign against US interests.

Based on recent trends, the challenge is clear. We must leverage the great capabilities of our Army and harness the full potential of emerging technologies to develop a more lethal, adaptable, and deployable force, able to operate effectively in full spectrum operations within a coalition, as well as within a joint interagency task force. We must remain flexible enough to deal with surprise. The focus of officer education efforts should be structured to support the development of these capabilities.

In doing so, we must consider what it will take to develop competent leaders of our future forces and the type of people who can master operations in the environment described above. These leaders must be well-grounded in the capabilities and doctrines of their branch and combined arms. They must also be well versed in joint operations, melding the right mix of service capabilities to fit the environment in which they will operate. That environment will likely involve the compression of the tactical, operational, and strategic levels of warfare and the probable use of the military instrument in operations other than war.

Therefore, these future leaders must be adept at the management of modular "plug and play" forces. Indeed, the mission and organization of a Joint Task Force (JTF) may evolve slowly over an extended period of time-or very quickly-depending on the circumstances in each particular situation. One example of how rapidly the mission of a JTF can change occurred during Operation Uphold Democracy in Haiti in 1994. Within a matter of hours, operational planning shifted from a forced-entry operation to a permissible-entry peace enforcement operation. This is the type of flexibility, from the tactical level through the strategic, that we must engender in our future leaders. Since future operations are not likely to be service-specific, we need to enhance and integrate our strategic, combined arms and joint education and training to prepare our leaders for the future battlefield.[13]

THE CURRENT OFFICER PROFESSIONAL MILITARY EDUCATION

The current Officer Education System has grown into a system with the singular theme of preparing officers for the conduct of war. It accomplishes this purpose by teaching them how to employ combat forces at three levels of warfare. The three levels of warfare are: tactical, operational, and strategic. Figure 6, depicts these levels, the focus of each, and the associated schooling that an American Army officer undergoes in preparation to perform his or her professional tasks.

Current
Army Officer Development

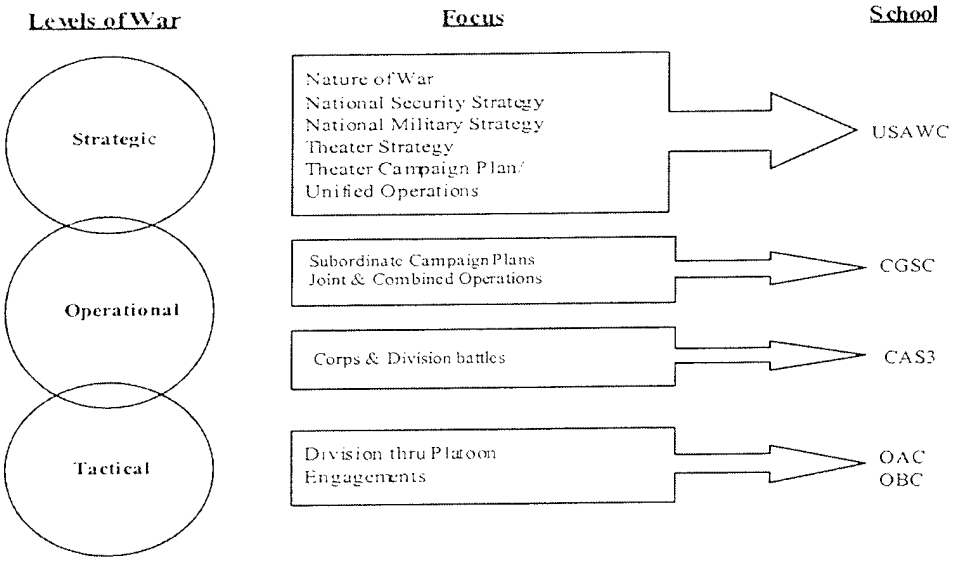

FIGURE 6. LEVELS OF WAR AND ASSOCIATED SCHOOLS

This approach is based on a Cold War paradigm in which the officer normally underwent a rigorous pre-commissioning undergraduate education at the military academy or a civilian university, followed by roughly 20 years of training in his basic branch (as a staff officer and commander), prior to the final period of intensive education at a senior service college. The school system prepares an officer for success at the tactical and operational levels and to serve in positions of a strategic nature at the rank of lieutenant colonel and above. Inherent in this structure, however, were two implicit assumptions. First, officers would not serve in positions calling for them to make decisions or provide advice at a level they had not yet been schooled for. Second, the training and experience officers received at each level and in operational assignments provided an adequate basis for advancement to the next level, where they would receive additional schooling, as they progressed throughout their careers.[14]

Throughout the Cold War an officer's transition from the tactical and operational to the strategic level was not necessarily an easy one, but it was facilitated by the relatively simple nature of American strategy during that era. Today our strategic end-states are less clear, and consequently the intellectual transition from the tactical and operational levels to the strategic level is much more complex.

THE NEW CHALLENGE TO EDUCATE LEADERS

The new security environment has changed the relationship between the levels of war in ways that must be considered when determining an effective way to educate officers for the future (Figure 7). First, as described at the beginning of this article, today's young officer is much more likely to be confronted by decisions that may have operational or even strategic consequences than were his Cold War predecessors. Today's missions in places such as Bosnia or Kosovo are more politically and culturally complex than were most Cold War missions.[15]

NEW
EDUCATIONAL CHALLENGES

- New security environment has changed the relationship between the levels of war.
- Centralized planning, analytical and objective techniques will require adjustment to work in the new information age.
- New innovative training is needed to develop thinking skills earlier and more thoroughly.
- Senior officers must acquire a much more sophisticated understanding of the integration of all of the elements of national power.
- New strategy of engagement has increased the demand for military to become involved in domestic and international emergencies and in operations other than war.

FIGURE 7. EDUCATIONAL CHALLENGES

Second, The centralized planning, analytical and objective techniques of military science that served us so well in the past will require adjustments to work as well in this new information age, where intuition and individual nuances of military art are required leader skills. Innovative training is needed to help soldier develop their thinking skills earlier and more thoroughly. Future conflicts will require adaptive and flexible leaders who are confident; consistently make better and faster decisions than their opponents during full spectrum operations. We cannot afford a command style predicated upon "I know it when I see it..." Commanders must visualize an expanded battle space; describe it with clarity, and direct combat systems to accomplish the mission. Officers must possess the confidence to take action even in the absence of orders, and the understanding to seize and exploit every opportunity without being scrutinized or feeling they may be risking their professional career.

Third, while the student at the senior service colleges in the 1980s could grasp the essence of American national security strategy with an understanding of deterrence and containment, the same is certainly not true in the year 2001. No few words can adequately convey the complex nature of the international environment we confront. The senior officer of today must acquire a much more sophisticated understanding of the integration of all of the

elements of national power (military, diplomatic, economic, and informational). Again, this is due to the Army's expanded professional authority, in which its officers are now required to provide advice and perform more tasks in an increasingly complex environment.[16]

Fourth, our strategy of containment has been replaced by a strategy of engagement that has been coupled with increasing demands for the military to become involved in domestic emergencies. This requires more articulate explanations by military professionals on how to use military forces to shape, respond, and prepare in this new environment. Success in such operations may be better defined in terms of conflict prevention or resolution as opposed to clear victory. Officers must be able to articulate clearly what military forces can and cannot do in the pursuit of national objectives in a particular situation. This application of abstract expert knowledge to a specific situation is the essence of our profession. Consequently, we must consider how we educate and develop officers to deal with this level of complexity. Today, by the time an officer achieves general officer rank or is asked to serve in senior positions on the Army staff, the Joint Chiefs of Staff, Office of the Secretary of Defense, he or she may have a full understanding between the levels of warfare to achieve some understanding of the full integration of the nation's military, economic, and diplomatic or political instruments of power.

Civil War history may provide a useful metaphor in our analysis. During that conflict, corps commanders could exercise direct leadership in coordinating and controlling a well-defined set of military and technical skills at the tactical level of war for their units. They could see, understand, and directly control everything that happened in their corps area of operations. If one goes to the Gettysburg battlefield and stands at the statue of General Lee, where Pickett's charge began, the open field visible to the left and right is essentially the frontage a corps occupied. A corps commander essentially operated at the top of a professional comfort zone in which he had grown up and developed expertise since his time as an academy cadet.

The history of that war is replete, however, with commanders who were successful at the corps level but failed when they advanced to army command. The problem was that army command removed them from their comfort zone and placed them in a task environment for which they were not professionally prepared. They could no longer see, understand, or directly control everything in their expanded area of operations due to the increased size of the formation and dispersion on the battlefield. Instead they had to develop a picture of what was happening based on imperfect and often incomplete information gathered from others. Furthermore, as army commanders they were more involved in the civil military relationships emanating from Washington.

Leadership and control were now at the indirect level, and the application of military force had migrated to the operational level of war. The army-level commander required a different set of professional skills to be successful in an expanded and more complex jurisdiction-skills that he did not have, and an environment for which the Army had not prepared him. This shift in required professional expertise from direct to indirect leadership is tied to the difference between training and education. Examples abound on both sides, from Generals Hooker and Burnside in the Union Army, to Generals Hood, Longstreet, and Early who fought for the Confederacy. These men were all outstanding direct leaders who achieved excellent results when they led formations that were appropriate for their direct-level leadership skills, but who were relatively ineffective when placed in command of larger formations that required indirect-level leadership.[17]

This historical analysis, when considered within today's strategic context, suggests that our traditional model of training and educating officers should be transformed to meet the requirements of today's security environment. In today's warfighting arena, a lieutenant colonel in command of a battalion task force must lead at the indirect level as well as the direct, given the time and distance factors and weapon ranges in modern ground combat." Like their predecessors in the Civil War, those who cannot adapt to this level of leadership will be ineffective. Thus, for all the missions our officers must perform-from warfighting to peacekeeping-waiting until the 20-year point in an officer's career and then trying to transform officers from tacticians and operators to strategists during ten months at a senior service college may simply be too little, too late, if we expect our officers to render the professional services that the nation now requires. In the "transformed" Army that is envisioned, this will become increasingly difficult as officers not only are involved in more complex positions on staffs but as enhanced brigades assume missions and frontages that are now appropriate for divisions or even corps.

Finally, the technological advances of the revolution in military affairs also complicate as well as encourage change in the educational development of officers. Commanders of the future may be able to achieve total "situational awareness," but this could present two dangers. First, the ability of the strategic leader to view, communicate, and effect what subordinate commanders are doing may draw them down into the details of tactical and operational decision making. From a professional perspective, this runs counter to our stated doctrine and preference for devolving power and authority to lower levels, then trusting subordinate commanders to execute the mission. Such behavior on the part of strategic leaders also contributes to morale problems and the decline in professionalism that many authors have

described. The second danger is that future commanders may also be attracted to the notion that if they delay decisions, they may receive the final piece of intelligence that will provide a complete picture. Obviously, this ignores the basic fact that delay is a choice that may have serious consequences, particularly at the strategic level. It further encourages a conservative approach to decision-making and a zero-defects mentality. This focus on zero defects and micromanagement is already having a corrosive effect upon the officer corps. It has been identified in studies of junior officer retention as what officers dislike most about the profession and is a leading reason cited for their departure before retirement. An educational program that properly develops an officer will serve to dampen these tendencies and encourage officers to both master technology and devolve control to the lowest possible level.[18]

WAYS TO BRIDGE THE JURISDICTION-KNOWLEDGE GAP

The transformation of the Army demands a change in our educational approach and philosophy to develop and foster thinking in our officers. The first element of this is for the Army to recognize that conflicts such as Kosovo, Bosnia, Somalia, and Haiti are not unique, but rather are the types of conflicts that we will be engaging in for a significant period of time. They are simply part of our current and future global security responsibilities.

This is not all bad because such missions provide excellent opportunities for the experiential development of our officer corps. Junior officers who have served in recent operations such as Kosovo and Bosnia have achieved a wealth of experience in joint, combined, and interagency operations far exceeding that of most lieutenants and captains during the Cold War. Unlike the unsuccessful Civil War generals who were pulled out of their comfort zone in corps command and did not adapt to the more complex world of indirect leadership at the army level, many of today's junior officers have survived and even flourished in the Army's new roles. At a young age, many of these officers have dealt successfully with the new missions. They are hungry for the abstract knowledge that might have helped them in performing these missions, and which they know they will need as they advance in the profession. They also want to ensure that their successors have the knowledge base that they lacked.[19]

OFFICER EDUCATION

Officer education must adapt to meet the needs of the Transforming Army and the realities of the operational environment. Largely untouched since the end of the Cold War and progressively under-resourced during downsizing, officer education is not coordinated to support the new Army needs. Officer education requires a new approach that focuses each

school on a central task and purpose; promotes officer bonding, cohesion, trust and life-long learning; links schools horizontally and vertically; synchronizes educational and operational experiences; and educates officers to common standards.[20]

The Army should consider a broader approach to officer education and professionalism strategy, as indicated in figure 8 below. As an officer rises in rank, his training requirements decrease, while his corresponding education requirements increase.

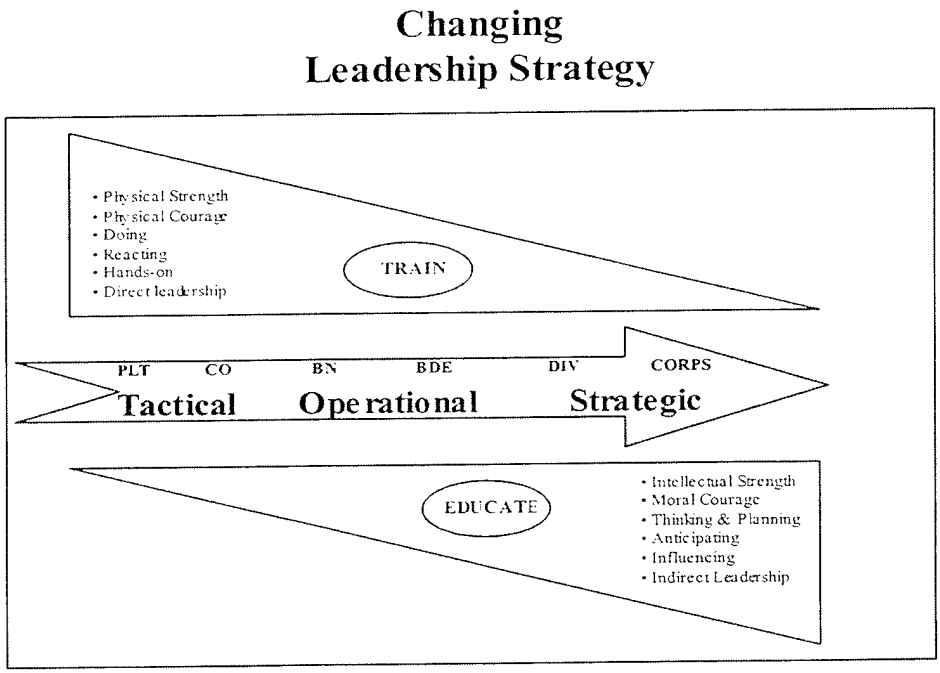

FIGURE 8. TRAINING AND EDUCATIONAL DEVELOPMENT

The Army's future officer education must be well grounded in the capabilities and doctrine of their branch and service, but they must also be well versed in joint operations, melding the right mix of service capabilities to fit the environment in which they will operate. As discussed, that environment will likely involve the compression of the tactical, operational, and strategic levels of warfare and the probable use of the military instrument in operations other than war. Therefore, what is needed is more than just getting officers to think at the strategic level of war and politics, but also educate officers to think broadly and contextually, and providing them a wider and deeper way of seeing the world. The Army must change to meet future leadership demands by developing leaders to be self-aware, adaptive and multi-functional in the information rich, complex, fast-paced and ambiguous mission settings of this century.[21] Future leaders must be adaptive to the changing conditions, increased cognitive demands for situation

assessment, decision-making and monitoring outcomes in the new age of information. They need to have self-awareness, to assess abilities, determine strengths and weaknesses in the operational environment, and learn how to sustain strengths and correct weaknesses. Leaders will be more multi-functional, i.e., understand and support the roles of other staff members in the command and, in some cases, perform tasks previously designated for only one specially trained staff member.[22] Leader training must evolve from situational awareness to situational understanding, and reoriented from a process learning to experiential learning environment.

Above all, to develop this type of leader requires commitment on the part of the Army and its leaders. The Army must commit to be a learning organization that institutionalizes the organization's learning philosophy and provides the resources necessary to foster continuous education, training and leader development for our future leaders.[23]

Industry in the United States has already made this determination in several ways. Successful businesses consider that the "learning organization" requires organizational learning in addition to traditional training. Organizational learning is a set of processes and structures to help people create new knowledge, share their understanding, and continuously improve themselves and the results of their enterprises. It is not so much a program as it is a philosophy that the leadership of the organization adopts.[24]

OFFICER EDUCATION SYSTEM

First and for most, the new Officer Education System (OES) must establish a common standard for small unit fighting, leader competencies, and an officer corps with the capability to operate effectively regardless of whether they are combat arms, combat support, or combat service support (Figure 9). This imperative will place a premium on cohesion, small unit leadership, and trust, particularly among officers who command and lead platoons and companies. The presence and demonstration of warrior

Unit Needs and Leader Competencies

OES must develop Leaders who:

- ✓ Learn "how to think" and think adaptively earlier in their career
- ✓ Operate comfortably in ambiguous situations
- ✓ Possess broader Army, Joint, and Combined knowledge & perspective
- ✓ Can sort essential from non-essential in an information rich environment
- ✓ Possess strong interpersonal skills to build cohesive teams
- ✓ Are technically competent with increasingly complex equipment
- ✓ Are committed to continuous learning

FIGURE 9 FUTURE OES

ethos among junior officers and the units they lead will become an indispensable factor in sustaining the will to fight.

Second, the new OES must support future warfighting requirements through a progressive and sequential education process that embeds Service ethos, and combat skills. All leaders will be warfighters first. The model would support full spectrum operations by linking OES from pre-commissioning through Senior Service College (SSC) by teaching Service Ethic, particularly in the Officer Basic Course (OBC) and the Captains Career Course (CCC). The revised OES will produce Officers who are competent in conducting joint, combined arms operations, bonded to the Army before their branch, cohesive as a year group and officer cohort, self-aware and adaptive, and committed to life-long learning.[25]

Third, a study on Joint Professional Military Education in 1999 found that the regional commanders-in-chief (CINCs) believe officers need to be exposed to joint matters earlier in their career. This suggests a requirement for continuous and gradually increasing intellectual development over the course of an Army officer's career. To successfully grow strategic leaders for its new jurisdiction, the Army cannot wait until the 20-year point in its officers' careers to educate them in security studies. That should be a part of the professional military education program from one's pre-commissioning education, building continuously at each formal school, during unit Officer Professional Development, and through continuing education. The senior service college experience can then become a capstone program in advanced strategic studies as opposed to an introduction to strategy. Perhaps most important is the need to imbue in the profession the requirement for life-long learning.[26]

Fourth, the technology of distance learning offers a tremendous opportunity to assist in making this educational concept a reality as a tool for lifelong learning, and not a substitute for formal, resident education. This method must be fully explored and used in innovative ways. Examples for consideration include tying the Officer Professional Development program into distance learning technology, and requiring a program of continuing education analogous to that found in other professions like medicine.[27] The future Army distance learning would expand as primary conduit for self-development between individual in units and schools/centers to support a life-long learning environment. It would provide multiple Online Web-based focused functional unit training that benefits unit and individual readiness by allowing them to access information at any time. The future of distance learning would encompass, to name a few, on-demand Subject Matter Experts (SMEs) "Reach Back" support, Field Manuals embedded in weapon system, vehicles and laptops updated automatically via satellite, links to CTCs for interactive real time simulations, full courseware reusability and interoperability, fully deployable

unit training and training products, and electronic performance support systems (Figure 10). At the same time, Army operational, tactical and training doctrine would be instantaneously updated with lessons learned from CTCs to reflect the full spectrum operational battlefield.

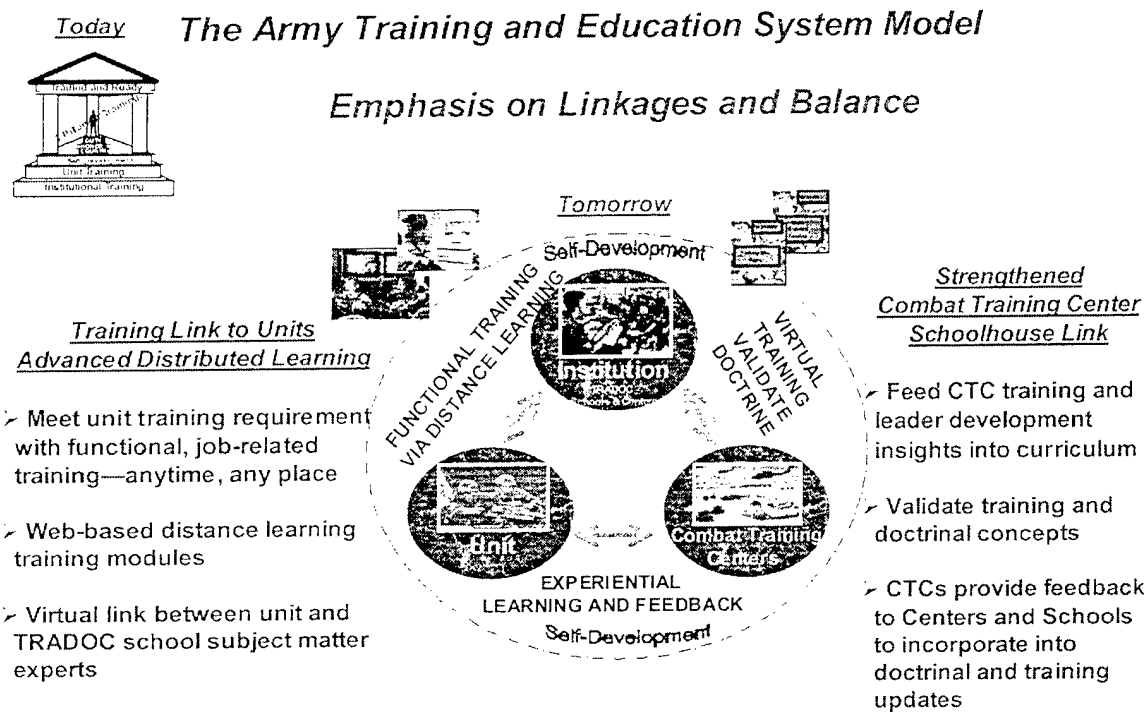

FIGURE 10 TRAINING AND EDUCATION LINKAGES

Fifth, the Army needs to explore ways to increase graduate educational opportunities for the officer corps that do not penalize officers in terms of advancement within their basic branch. Since 1980 the number of US Army officers attending advanced civil schooling has decreased dramatically. Increasing these opportunities may also encourage the retention of our best young officers. A model to consider for possible use is a graduate program offered coincident with attendance at the advanced course. Officers would be offered the option to enroll simultaneously in a master's degree program either resident or via distance education while attending their branch advanced course. They could be allowed to remain for an additional period of time to attend graduate school full-time in order to complete the degree. The Army would pay the officers their full salary, while the officers might pay any tuition and fees that are not covered by their educational benefits. This would be a win-win situation for the officer and for the Army. The officer could earn a master's degree from a quality university, and the Army could enhance the professional knowledge base of its officer corps at a low cost in terms of both time and money.[28]

Sixth, The Army's System Approach to Training (SAT) is essential to soldier and leader development. It is the process that identifies and defines collective and individual tasks, to include leader tasks, with conditions and standards that the unit and soldiers must perform in order to accomplish the mission. These tasks are the foundation for Army training and education. The future SAT must transform to overcome an increasing lack of unit, individual, and leader standards for full spectrum and joint operations in a variety of unit types. It must redesign the development and support structure to leverage the subject matter expertise in our CTCs for training and doctrine development. As the Army of the 1990s evolved to operate in full spectrum operations, the relevance and currency of training publications consistently declined. The Army must look at relocating some training developers and doctrine writers to the CTC Operations Groups to develop, write, publish, and maintain the training and doctrinal publications.[29]

Investments should be made in emerging information technologies to speed production and distribution of training publications for standards-based training. Using the latest technology and/or software applications that perform as universal database translators will maximize efficiencies of the SAT process. Linking the training institution to units and individual leaders in the field through networks will streamline the identification of needs requirement, capture emerging task, condition, and standard solutions therefore maximizing the potential benefits of a learning organization across the entire Army.

Finally and most importantly, the Army must place a higher value on education and on its officers who are educators. The Army must view the schools and centers as an important asset to the future of the Army and supported with a rotation of experienced warfighting instructors. The strategy will enhance and expand educational orientation from staff competency to leadership and decision-making at the combined arms level earlier in their career development. This will allow leaders to fight a plan and concentrate and reflect on their thinking process as they execute the plan under the watchful eye of an experienced senior leader. The senior leader becomes the mentor who guides his junior leaders through learning experiences, simultaneously developing their intellectual discipline and creativity. This will allow them to think, see and understand concepts and connections. Through study, experience, feedback and reflection, the student deepens his or her understanding and knowledge, and becomes a continuous learner whose intuition develops constantly.

Congressman Ike Skelton frequently cites the following historical statistic: of the 34 corps commanders who led the American Army to victory in World War II, 31 had taught in the Army school system. They were able to apply the professional knowledge they had developed over

years of teaching into the practical business of raising a force, training troops, and leading them successfully in combat.[30]

OFFICER EDUCATION PROGRAMS

Pre-commissioning (ROTC, OCS, USMA)

Pre-commissioning should include core courses in history, international and American politics, economics, culture, and regional geography as part of the curriculum. This would begin to instill a personal commitment to curiosity, to being an active thinker and a student of the profession of arms.

Officer Basic Course (OBC)

The Officer Basic Course (OBC) will continue to provide basic combat training and branch specific technical and tactical training to all lieutenants. The basic combat training phase (Figure 11), would be centralized, which means all lieutenants, regardless of branch would attend the first phase together to focus on establishing a common Army standard for small unit fighting and leading, teach common platoon skills and officership, provide platoon tactical operations and technical training, combined arms training, hands-on, performance oriented, field training and opportunities for lieutenants to train with NCOs.[31] Upon completion of the basic combat training phase, lieutenants would then attend phase II, at respective branch school to receive their branch technical and tactical training. In phase II (Figure 12), lieutenants would receive an introduction to the different levels of leadership; the differences between the tactical, operational, and strategic levels of war; and joint operations. They would be introduced to all tactical scenarios (full spectrum operations)

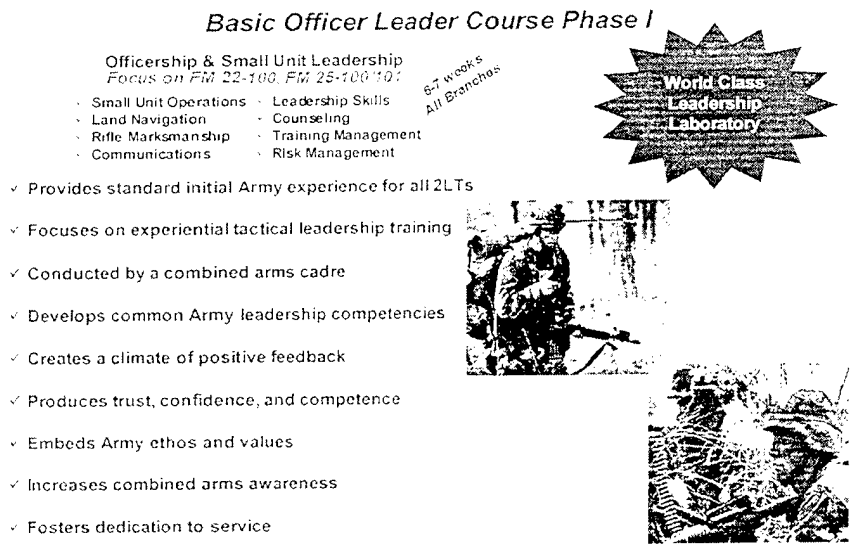

FIGURE 11 OBC PHASE I

within the broader operational and strategic contexts. Each officer would be required to read and discuss the National Security Strategy and National Military Strategy.

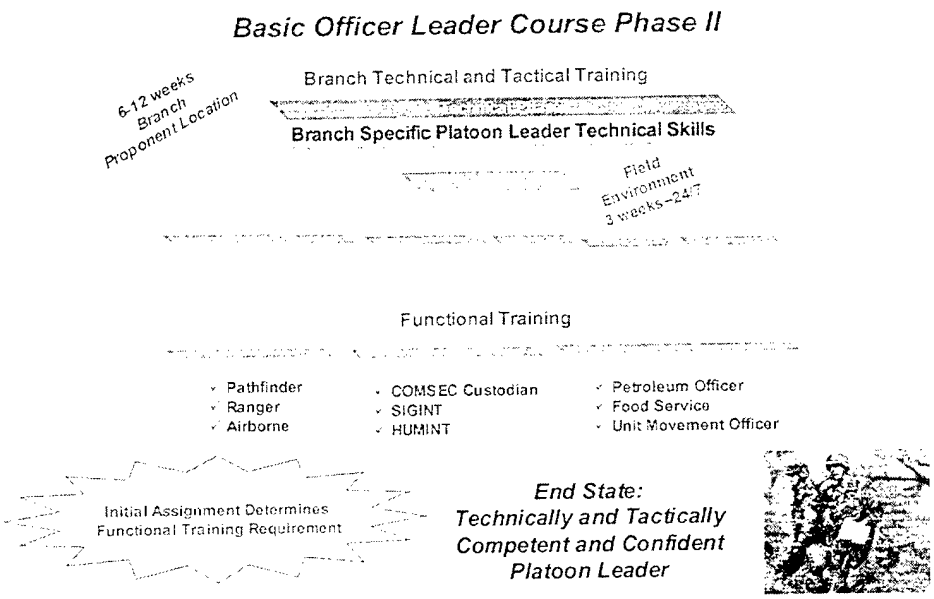

FIGURE 12 OBC PHASE II

The end state is an OBC that bonds lieutenants with their combined arms peers, are tactically and technically proficient small unit leaders and are ready to assume leadership positions and make an immediate impact or contribution upon arrival to their first unit.

Captain's Career Course (CCC)

The Captains Career Course (CCC) will focus on common company command skills, and combined arms company tactical operations. Eliminate CAS3 an integrate a combined arms battle captain training and branch technical and tactical training into the Combined Arms Leader Course (CALC) and the Combat Arms Battle Captains Course (CABCC) (Figure 13). They would stay focused on the tactical level, but blend in just a bit more of the operational and strategic education as described for the Basic Course. They would

Combined Arms Leader Course (CALC) and Combat Arms Battle Captains Course (CABCC)

Intent: Fully integrate combined arms company command training and staff officer functions across the full spectrum of conflict.

4-Phase Course:

Phase I: Asynchronous, self-paced, pre-resident distance learning via internet or CD-ROM to assess baseline knowledge and develop proficiency in tactical and technical knowledge-based tasks

Phase II: 14 week resident phase to develop company command skills. Proficiency is developed via several multi-echelon, multi-grade experiential exercises.

Phase III: 7 week resident battle captain phase focusing on leadership and staff skills required to perform as a battle captain at battalion and brigade levels

Phase IV: 3-5 week technical/functional phase conducted at individual branch schools as needed

FIGURE 13 CAPTAINS CAREER COURSE

review the National Security Strategy and the National Military Strategy and consider their evolution since the Basic Course. Integrate more military and political history into the curriculum. Focus on teaching the nature of war as opposed to only the scientific conduct of war. Teach the basic concepts of "systems thinking," so officers begin to appreciate the phenomena of second-and third-order effects.

The end state is a corps of Captains ready to be successful company commanders and battle captains who can plan, prepare and execute, and assess combined arms and full spectrum operations and training at the company, battalion, and brigade level.

Command and General Staff College (CGSC)

Replace the Command and General Staff College (CGSC) by a Intermediate Level Education (ILE) program to provide all majors the right education opportunity, in accordance with OPMS XXI, by giving them a common core of Army operational instruction and career field, branch, or functional area training tailored to prepare them for their future contributions to the Army (Figure 14).[32] Maintain the current focus, but incorporate a deeper study of strategy, with

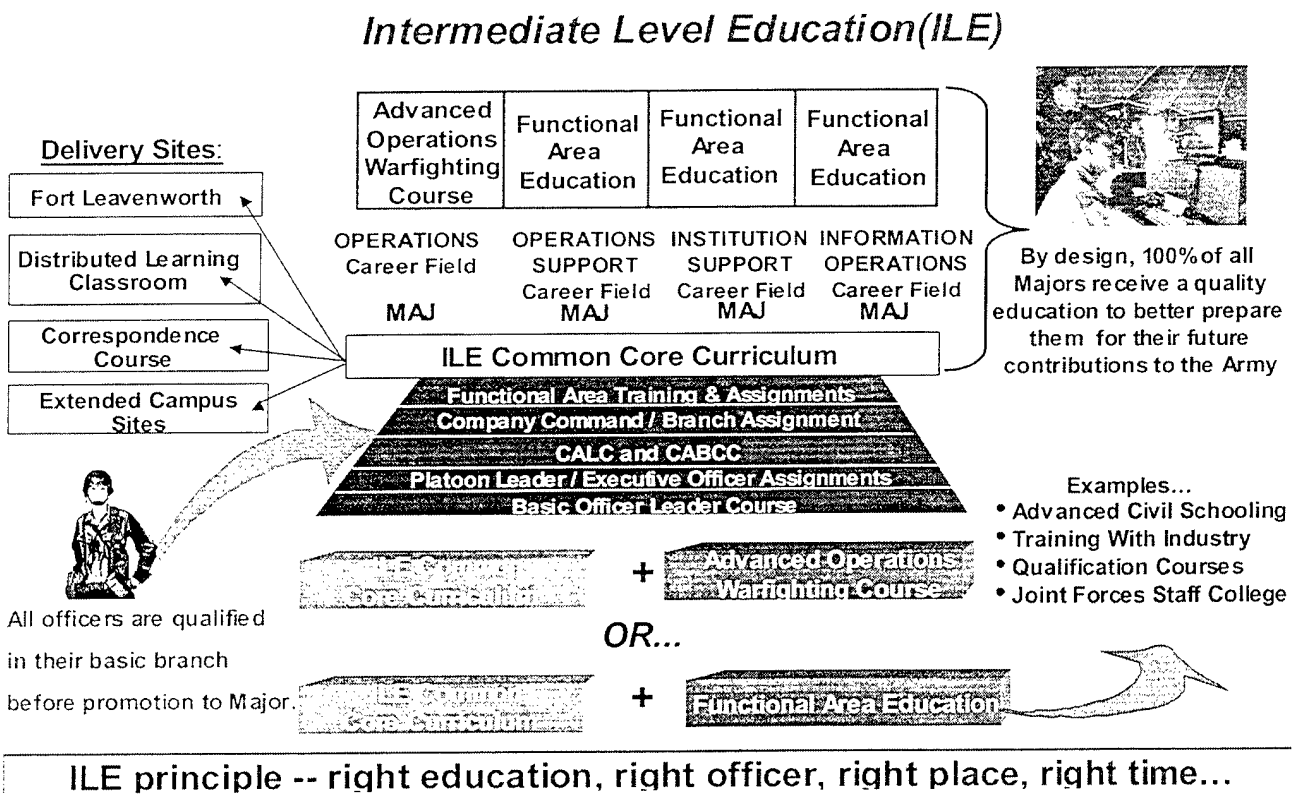

FIGURE 14 INTERMEDIATE LEVEL EDUCATION

focus on the National Security Strategy and the National Military Strategy. Emphasize systems thinking and teach both critical and creative thinking skills. Incorporate strategic topics into the course lecture program. Build a progressive educational program that includes individual reading, correspondence and continuing education, lectures, and brown-bag seminars similar to those in the medical and legal professions. Encourage officers to complete a graduate degree, training with industry or qualification courses in a field that interests them and benefits the Army. Incorporate the Chief of Staff of the Army's reading list into these programs and seek ways to provide officers copies of the books or at least highlight these selections at military bookstores in the United States and abroad. Provide officers the opportunity to view, via the internet, lectures given to the resident classes at the Command and General Staff College and the Army War College.[33]

End state is Majors with common warfighting knowledge of division, corps, and joint operations who possess a better understanding of their career field contribution to warfighting, and a corps of officers who have the technical and tactical, and leadership skills required to be successful in their branch, career field and or functional area.

Senior Service College (SSC)

With the officer education system built upon this foundation, the Army War College can then transform into teaching advanced strategic education programs. To include seeking greater synergy with the other senior service colleges, other higher institutions and international allies through an elective program available to all via distance education.

This educational transformation will not happen overnight. Rather, it must be part of a reformation in Army culture so that officers accept life-long learning and education as an obligation of their profession. It should become a fundamental part of the Army professional ethic. In addition, if the Army acknowledges that education is indeed valuable, then it must build time into the professional culture for officers to routinely read, write, discuss, and learn. Senior officers and Army schools should integrate higher strategic concepts into the lives and thinking of our younger officers. Strategic education should not be an add-on. It should be woven into the fabric of how our officers think, and the Army's "Be-Know-Do" model of leadership.

In these simplified terms of the Army's leadership doctrine, this proposal invests earlier and more often in the "Know" and "Be" aspects of our officers, so that their ability to "Do" is enhanced both now and in the future.[34]

CONCLUSION

> It is our duty to develop leaders who have the skills necessary to succeed today and in the future.
>
> —General Eric K. Shinseki

As an institution, the Army must face up to challenge and transform leader education with the same urgency and energy it is applying to developing the Objective Force. We need to develop and foster innovative thinking in our professional education if we expect our officers to render the professional services that our nation requires and expects. Regardless of budgetary and other constraints, our Army educational programs must remain top priorities. Education is a vital element in the effort to fulfill both short-term needs and long-term requirements.[35]

The Army of tomorrow relies on the Army of today to accept the challenge and responsibility for the development of leaders for the future. As the Army transforms, it is imperative that they also transform the approach to educating officers. Without intellectual change, both the development and application of technology will be limited by old ideas. The post-Cold War expansion of the Army's professional jurisdiction has created a gap between the knowledge that its officers receive during their professional military education and the professional knowledge that they need to effectively complete the missions they are being assigned in today's contemporary operational environment. Young officers leading tactical units deployed far from higher headquarters are making decisions that have far-reaching strategic implications. Senior officers from lieutenant colonel through general are also faced with far greater complexity and intellectual challenge than in the past. The Army can and should progress in terms of educating our officers for the challenging situations and tasks they will continue to face in the years ahead. The future education system must be firmly grounded in the fundamentals of tactics, technology and leadership with an approach that embeds a notion of "lifelong learning" to the profession, a refocus into the art and science of conflict, and a better understanding of basic strategic concepts earlier in their careers. Greater fusion between education and training is needed that establishes a strategic education glide-path from pre-commissioning through the senior service college. This concept would replace the current stair-step model in which officers receive relatively little strategic education until roughly their 20th year of service.

This new concept will place creative thinking skills, at the same level as tactical skills by implementing a continuous, progressive, and sequential process that embeds the skills, knowledge and behavior characteristics necessary to execute the missions across the full spectrum of operations. It will allow the future leader to be part of the new technology, using it

to increase productivity and understanding, to monitor and influence and to enhance his ability to lead. The end result is adaptive, self-aware and multi-functional leaders whose trained intuition, ability to understand diverse and complex situations, cope with the flood of information and establish the clarity and focus to act decisively – the essence of military art.

Word Count = 9,268

ENDNOTES

[1] Derived from numerous sources, including speeches from senior Army officials, news reports. The incident occurred on 28 August 1997; six days later American forces turned the bridge over to Bosnia Serb police. For details see Lee Hockstader, "U.S. Troops Pull back from Bosnia Bridge," The Washington Post, 5 September 1997, p. A27; Tracy Wilkinson, "U.S. Troops Quietly Cede key Bridge to Bosnia Serbs," The Los Angeles Times, 5 September 1997, p. 16; and Colin Nickerson, "Hostility on all Fronts in Bosnia: U.S. Troops Feel Wrath of Serb Hardliners," Boston Globe, 8 September 1997, p. A1.

[2] Howard Olsen and John Davis, "Training U.S. Army Officers for Peace operations-Lessons from Bosnia," United States Institute of Peace Special Report, 29 October 1999, p. 1.

[3] Don Snider and Gayle L. Watkins, "The Future of Army Professionalism: A Need for Renewal and Redefinition," Parameters, 30 (Autumn 2000), 18-19.

[4] Jeffrey D. McCausland and Gregg F. Martin, "Transforming Strategic Leader Education for the 21st Century Army," Parameters, 31 (Autumn 2001), 19.

[5] Ibid.

[6] Henry H. Shelton, "Professional Education: The Key to Transformation," Parameters, 31 (Autumn 2001), 4.

[7] McCausland and Martin, 19.

[8] Shelton, 5.

[9] Ibid, 5-6.

[10] Ibid, 7.

[11] Ibid, 8.

[12] Ibid, 8-10.

[13] Ibid, 11-13.

[14] McCausland and Martin, 22.

[15] Ibid, 23.

[16] Ibid.

[17] This analysis is based on lectures by Major General Robert Scales, Commandant, US Army War College, Carlisle Barracks, Pa., during Academic Year 1999-2000.

[18] Ibid, 25-26.

[19] Ibid, 26-27.

[20] William M. Steele and Robert P. Walters, "Training and Developing Army Leaders," Military Review, July-August 2001, 7.

[21] Bruce A. Brant, "Developing the Adaptive Leader," Field Artillery Journal, September-October 2000, 25.

[22] Karol G. Ross, Dr., "Training Adaptive Leaders, Are We Ready," Field Artillery Journal, September-October 2000, 15.

[23] William M. Steele and Robert P. Walters, "21st Century Leadership Competencies," Army, August 2001, 32.

[24] McCausland and Martin, 27.

[25] Office Chief of Staff of the Army, Army Training and leader Development Panel (ATLDP) Study, 25 May 2001, 6.

[26] McCausland and Martin, 28.

[27] Ibid.

[28] Ibid, 29.

[29] Office Chief of Staff of the Army, 8.

[30] Ibid.

[31] James R. Rowan and Dallan J. Scherer II, "Educational Changes in the Transforming Army," Engineer (May 2001): 42 [Database on-line]; available from UNI Proquest, Bell & Howell; accessed 8 August 2001.

[32] Office Chief of Staff of the Army, 6.

[33] McCausland and Martin, 29.

[34] Ibid, 31.

[35] Shelton, 15.

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