The Roots of Responsive Logistics: Trails and Tails in Vietnam

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In keeping with this session's theme of "incorporating changes in asymmetrical operations," it appears that logistical experiences from both sides of the Vietnam War suggest some perspectives worthy of reconsideration in light of ongoing asymmetrical operations. Currently, the Army is seeking new ways to not only provide responsive logistics to our own forces in austere environments far from home, but also seeking to devise effective methods of countering insurgent activities.

The title of this presentation attempts to capture what I see as an interesting and timely need with some important implications for modern military logisticians as well as strategists and tacticians. While this lecture has been billed as the "logistics of insurgencies" my intent is to not only "get to know the enemy" in the Vietnam conflict but to also juxtapose their evolving practices against then concurrent developments and changes in American and allied practices. Through this analysis of each side's ability to adapt and change over the course of the war I hope to finally suggest some insights of relevance for contemporary logistics operations in asymmetrical environments.

Historically, examinations of this type of warfare and the effectiveness of insurgent activities and changing practices have been approached from tactical or ideological perspectives—less so from the nuts and bolts of how such movements are materiely sustained.

This brings us to my favorite question about military logistics in asymmetrical warfare—Why is it that historically, insurgents are able to "make a little bit of materiel go a long way"? How come with seemingly minimal logistical support and resources, insurgents can achieve effects that are disproportionate to the level of "logistical effort" put into their enterprises? I suspect that the answer cannot be simply chalked up to "tactics." Conversely, why is it that counterinsurgency efforts seem to consume unending amounts of materiel? Even so, much of it often seems to be "wasted"? What is going here?

During this past year as the Combat Studies Institute's Arthur L. Wagner Fellow, I examined methods of critical supply with a focus on the American experience from the Second World War to the present. So it is with the 20th century's defining conflict, that I will begin because the *roots of both sides' logistic practices* in Vietnam stem most notably from that conflict—though I fully acknowledge that insurgent or guerrilla warfare certainly has a much longer history.

World War II Roots

In the aftermath of World War II, there was an explosive proliferation and widespread dispersion of vast quantities of mass produced weapons and materiel produced for that conflict. A similar, and arguable greater proliferation occurred again in the aftermath of the Cold War that followed, presenting us with many of our current difficulties. This development certainly put a new spin on guerrilla or insurgent logistical practices.

While the Second World War provided plenty of large conventional force invasions sustained by industrial scale materiel might, it also provided plenty of incentives for aggrieved locals to resist under variety nationalist and ideological banners. One particular resistor showed that he had an especially keen grasp, *logistically*, of what he was up against, and I'll give you a moment to consider this (**Figure 1**).

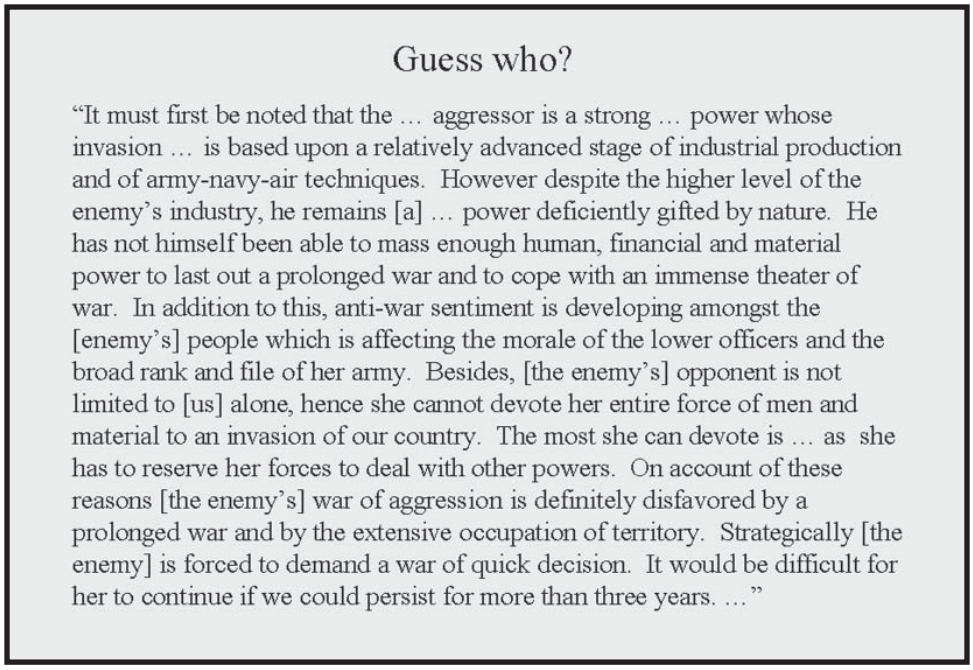


Figure 1

This quotation, as presented on this slide, has a presciently contemporary quality and with a little filling in of the blanks could be easily borrowed by many of the asymmetric challengers we currently face, but it was in fact penned by that master of 20th century insurgent warfare—Mao Tse Tung (**Figure 2**). The context was the Chinese struggle against the Japanese occupation.

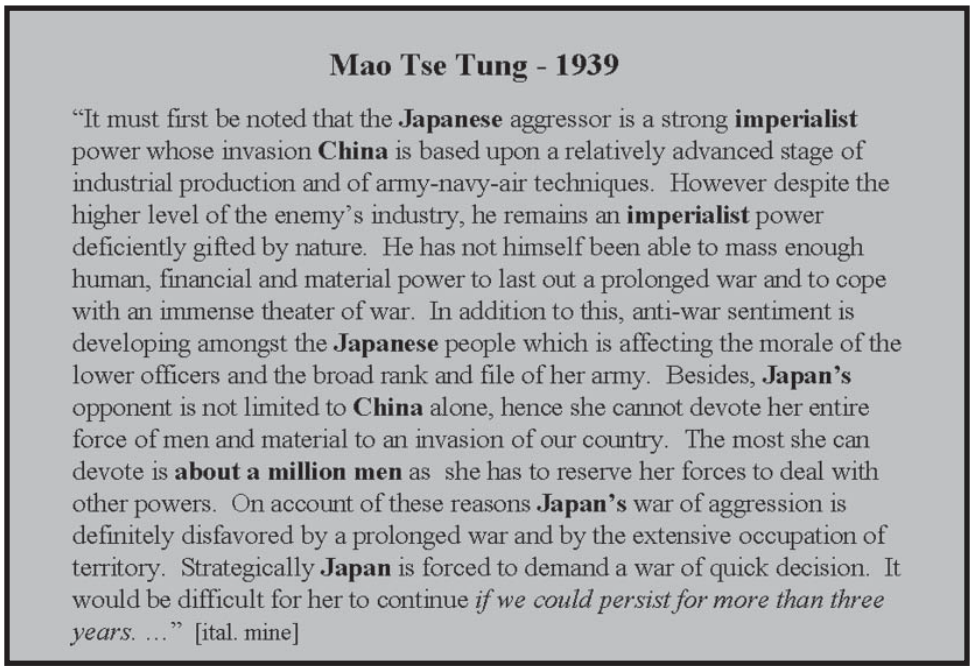


Figure 2

But what's notable here, at least from a logistics standpoint, is that this is an insurgent's avowed recognition of his inferior position with regard to access to modern materiel and it *implies* that other methods of sustainment would have to be found; *sustainable and suitable* for a long war, a war that would outlast the resources, capabilities and will of the enemy. More significant for our discussion here today, Mao's prescription also implies that a high degree of *logistical adapatability and creativity* was required to meet ever evolving conditions.

Mao left it to one of his lieutenants to articulate more specifically just what these other methods were to be. Chu Te,[1] in his work *On Guerrilla Warfare,* in the section detailing the "Most Important Factors in the Guerrilla War of Resistance," (**Figure 3**) noted that right after "#1 Political Warfare" (understandably a point of primacy for ideologically driven communists) came "#2 Economic Warfare," "#3 Warfare in Human Material" and "#4 the War of Armaments" and finally "#5 the War of Transportation and Communications."

Figure 3

For our purposes, sections four, and five get at the heart of insurgent logistical issues and methods and the need for adaptability.[2]

In section 4, on "The War of Armaments," Te noted, *"the enemy is well armed and we [the guerrillas] are not. …Yet, armament is not an all-powerful factor in warfare. Every weapon loses its effectiveness under certain conditions. For instance, planes, armor, and heavy weapons lose much of their effectiveness at night [at least they did in 1938 when Te was writing this]. Furthermore cutting the enemy's supplies and communications will largely neutralize this superiority in armament. …Our basic aim in reference to arms and equipment is to capture from the enemy as many new weapons as possible and to learn how to use them against the enemy himself."*[3]

For Section 5, "The War of Transportation and Communications,"—"*The front and rear in modern war are of equal importance. The requirements of food, arms, ammunition, gasoline, and other supplies, all indispensable for motorized forces, are increasing tremendously. The severance of the front from the rear in any modern war can mean the difference between defeat and victory for a whole army."*

"This is why modern army contact is a decisive condition for victory. Armor, complex weapons, and planes all require the utmost of highly developed and

smoothly flowing communications. For this reason guerrillas should concentrate upon this potential weakness of the enemy. …"

"Guerrillas must be resourceful in the extreme, endeavoring to achieve victory by any and all methods and situations at their disposal. …"[4]

Te and Mao were not alone in advocating extreme resourcefulness and adaptable approaches.

Ming Fan, another comrade of Mao and Te's was even more specific about the role and supply of "Weapons and Ammunition for Guerrillas" in his companion "*Textbook on Guerrilla Warfare*." In it, he noted that even though the weapons of the enemy may be "far superior" in "scope and effectiveness," because of the guerrilla methods, they are not as decisive "as in regular warfare."[5]

Furthermore, the text noted that "weapons are not difficult to obtain. They can be purchased from the people's 'self preservation corps.' Almost every home has some sort of weapon that can be put to use. Local governments and police headquarters usually have weapons. Furthermore, pistols, carbines, and 'blunderbusses' can usually be manufactured in local guerrilla established plants."

"Ammunition can be obtained in the following ways: … given by friendly troops [ie. Subverted by sympathizers from the government the insurgents are fighting against]; purchased or appropriated from the people; captured by ambushing enemy supply columns; purchased under cover from the enemy army; from salvage in combat areas, from the field of battle; self made [or adapted] by guerrilla organization especially items such as grenades…" and presumably mines and bombs.[6]

Another section of the "textbook" was devoted to "Supply and Hygiene for Guerrillas," which noted that, "Of the various essential needs … only supply and hygiene are absolute necessities." "Problems of food and water and medical attention … must be solved …"[7] Larger units were viewed as logistical liabilities, because of the difficulties of obtaining larger amounts of supplies. Since guerrillas had to rely on popular support for foodstuffs and supplies, they had to be sensitive to not unduly burden the masses in their areas of operation, lest they turn against them. In the guerrilla's view, it was better to take advantage of the "clumsiness" of the large occupying conventional forces, insensitively tramping through the populace, stirring up alienation and sympathy for the insurgent cause, and having that sentiment expressed as wide-spread low-level "penny packet" logistical support.

In terms of supply and support, the textbook further advocated that, "Guerrillas should also divide their units according to age and sex. Young women can be organized into "Women's Vanguards," older and weaker females into "Mending

and Cleaning Units," … and "the aged assigned to routine warning and sentry duties."[8] This division of labor was seen as a method of most efficiently taking advantage of every potential means of production—something of logistical significance in the relative poverty of a guerrilla economy.

As detailed and effective as Mao and his comrade's logistical "doctrine" was, it was left to another disciple of communism to take and refine this guerrilla logistics doctrine and adapt it to a style of insurgent warfare that effectively blended and evolved guerrilla and conventional methods as required. This time though, instead of the Japanese, it was the French and then the Americans who were slow to appreciate the significance of this logistical symbiosis and their doctrinal and ideological emphasis on the change and adaptability as required in this style of warfare.

Vietnam

Under the direction of Ho Chi Minh and General Giap—who had both spent substantial formative periods with Mao and his Chinese guerrillas[9]—*logistically* everything that Te advocated in *On Guerrilla Warfare* was put into practice. In the hands of Ho and Giap though, guerrilla or insurgent logistics practices as described by Mao and his comrades became something of an interim logistical "underpinning" while more conventional or industrial sources of supply and methods of delivery—in other words logistical infrastructure were cultivated or developed.

In the early years of the conflict, reliance on Mao and Te's methods were particularly significant. Mao inspired Vietnamese guerrillas were particularly impressed by and willing to take advantage of female labor, either in the form of unexpected combatants, or overt or surreptitious logistic support. One example from the previously discussed Maoist doctrine will suffice—that of obtaining weapons and ammunition. While resisting the French, the indigenous Vietnamese communist insurgent movement developed quite a record of capturing and co-opting French supplies (**Figure 4**). In May of 1953, the Vietminh, organized into roughly three companies, "attacked a training school for potential leaders at Namh Dinh." All 600 trainees and the complete account of weapons and ammunition for the school "were captured—without the loss of a single Vietminh soldier."[10] No doubt, that experience provided a most enduring lesson about the viability of Vietminh logistics methods!

The Vietnamese evolution or maturation of insurgent logistical methods played out in a particularly noteworthy form on the Ho Chi Minh Trail. Discussion of insurgent/guerrilla use of the trail as a line of communication and supply (LOC) is especially interesting when it is compared to the LOCs employed by American,

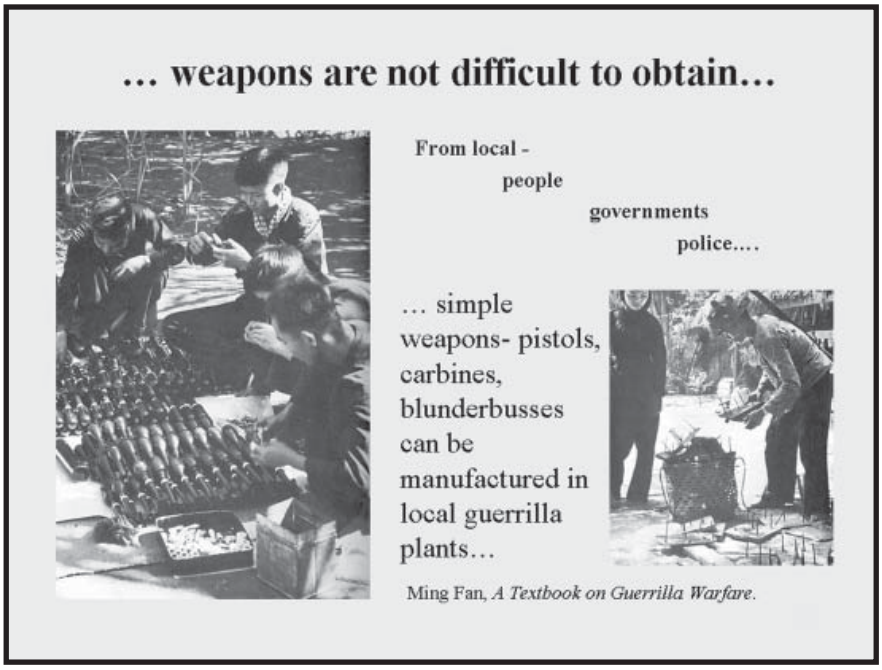


Figure 4

South Vietnamese, and other allied Free World Forces operating in South Vietnam. American popular conceptions of "the trail" are usually based on maps such as this one (**Figure 5**). They are linear simple and direct, and made comparative and understandable to our own LOC mapping practices. The reality though was much more complex.

From the late 1950s on—due in part to the political terms dictated by the Geneva accords that prohibited military buildups by either regime in either's zone—the Communists were anxious to "foster the impression" they "were in total adherence" with the terms of the agreement. Therefore they explored various alternate means of covertly pursuing these prohibited activities.

In May 1959, the North Vietnamese leadership created a logistics unit called Group 559 for the purpose of beginning expanding the traditional infiltration route to the south—the Ho Chi Minh Trail.[11] The trail—or rather *trails* (here the common use of the singular form for a plural entity made for a problematic verbal-mental construct) were in reality "a network of thousands of paths" existing for generations and beaten by the feet of "countless … highland tribesmen, rebels, outlaws, opium smugglers"[12] and others who thrived on its covert nature —generously made possible by the rugged terrain and tall dense vegetation, much of reaching to heights of over 200 feet (**Figure 6**).

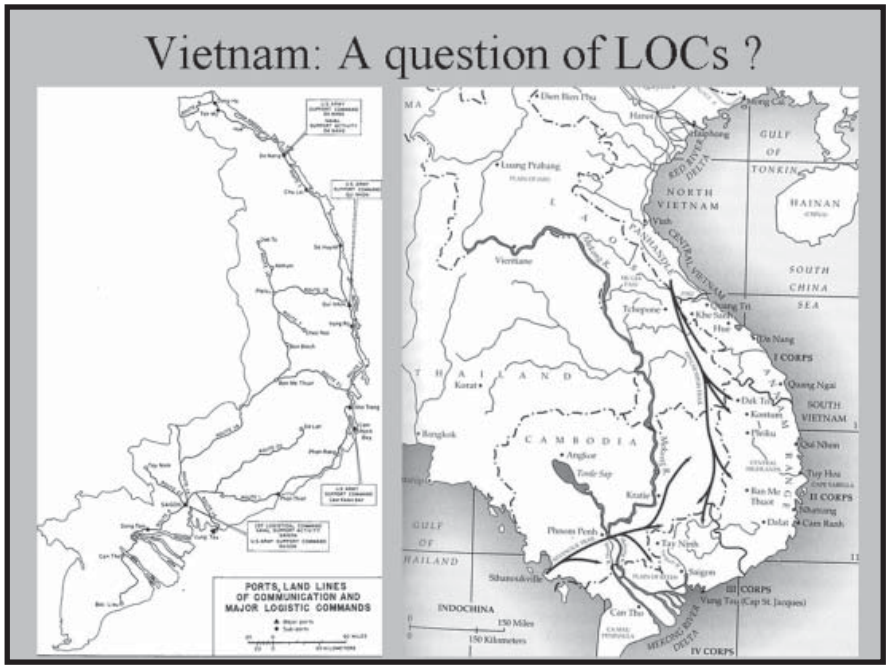


Figure 5

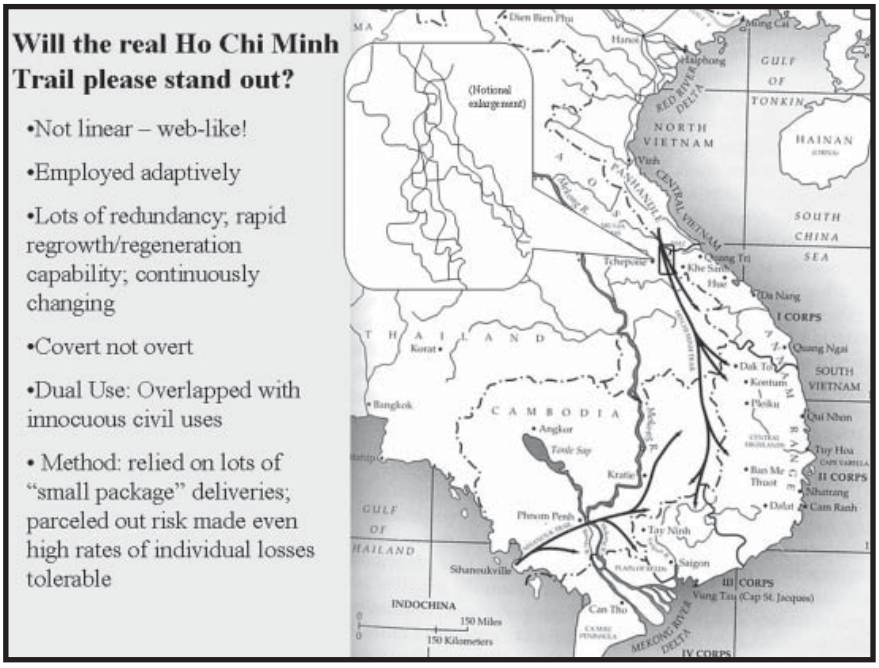


Figure 6

To western eyes as late as the mid 1960s, the existence of such a robust trail seemed an "impossibility" or the stuff of myth and legends; but by 1967, it had become in fact an "massive maze of roads, bridges, waterways and paths." The US Special Operators who encountered it described it as a "spider web… on top of a web… on top of web", or "a guerrilla's Appian Way." Others claimed a map of it would have looked like a "rye grass root, an ancient family tree, a dendritic river, or the human nervous or cardiovascular system…" Its extent, or length, was also the subject of much conjecture. In 1967, US estimates placed it at 200 miles, by 1969 that figure was revised to 2,000 miles, and by 1971, still another revision placed it at 4,000 miles.[13]

Post war revelations by Hanoi placed the expanse of the trail at easily twice what the Americans were tracking; between 8,500 and 12,500 miles, hence prodigious quantities of material still managed to get through[15] despite American claims that they had covered every inch of it with electronic sensors—spending almost a billion dollars a year doing so with the most "most efficient electronic system ever devised" and managed with state-of-the-art computers in *Operation Igloo White* (**Figure 7**).[14] This program was linked to other technological and scientific efforts to eliminate the obscuring foliage by any means possible in any place that the problematic tentacles were thought to pass.

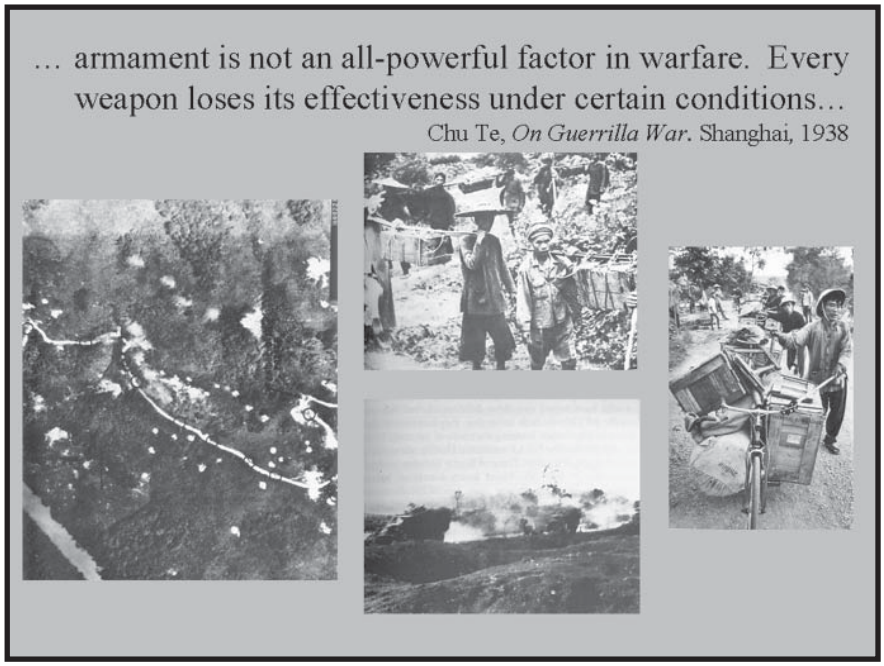


Figure 7

As the war continued into the early 1970s, the trail continued to be progressively and amazingly improved—thanks in part to its covert characteristics and its continuous relocation into sanctuary areas of Cambodia and Laos.[16] By the mid 1970s, the trail had improved to such an extent that much of it could routinely accommodate increasing numbers of motor trucks, which more and more came to replace earlier methods of porters and bicycles.

Efforts to map the trail were frustrating at best. For American operators trying to interdict it, their first problem for much of the war was just trying to locate "it," even with their tremendous technological sophistication. "It" was a moving target. It did not relocate in any mathematically predictable or programmable way. Its veiled random resilience was maddening, despite bold claims to the contrary.[17]

In contrast, American logistical methods in Vietnam were pure conventional brute force logistics. For the most part, there was nothing surreptitious or small scale about American LOCs, the log bases that they ran between, and logistics practices. Because this was a new style of war without fronts, with no truly secure rear areas, and the technology being brought to bear in it was increasingly dependent on a sophisticated support infrastructure. Base camps and log bases were created to provide relatively secure places were such logistical requirements could be performed. Logistical islands in a sea of insecurity (**Figure 8**).[18]

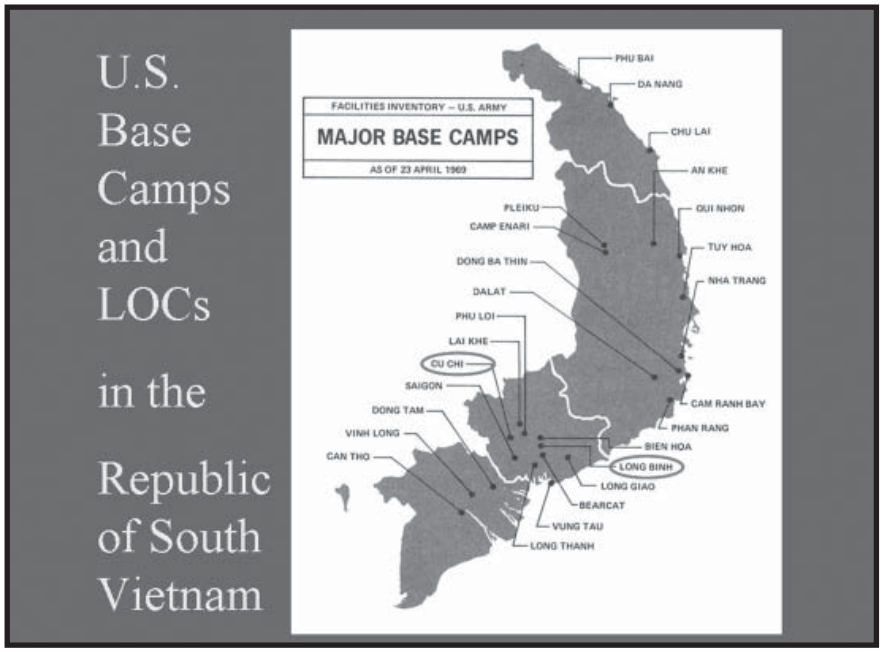


Figure 8

Theoretically, the creation of such logistics or operational support bases provided other advantages, including:

1. Establishing a government presence in the area of operations,

2. Aided in limiting guerrilla mobility in the immediate vicinity, and

3. Provided a measure of security to populated areas close by. At no time were these functions supposed to overtake their primary function of providing logistical support to combat units.[19]

Again, the reality though proved to be somewhat more complex. While combat commanders liked having the relatively reliable and assured support such island-like logistical launching pads provided, they did not like the fact that these bases "tended to devour their combat resources and became 'the tail that wagged the dog'."[20] By 1968, their complaints had arrived at DA and the "solution" was to "approve a personnel increase for base camps," complete with further increases in logistical requirements, anything to insure the invaluable bases' reliable administration and support.[21]

For the guerrillas, in keeping Mao and Te's prescriptions for guerrilla logistics, the American's adoption of the base camp method of logistical support proved to be something of a dream come true. Not only did the bases provide fat juicy

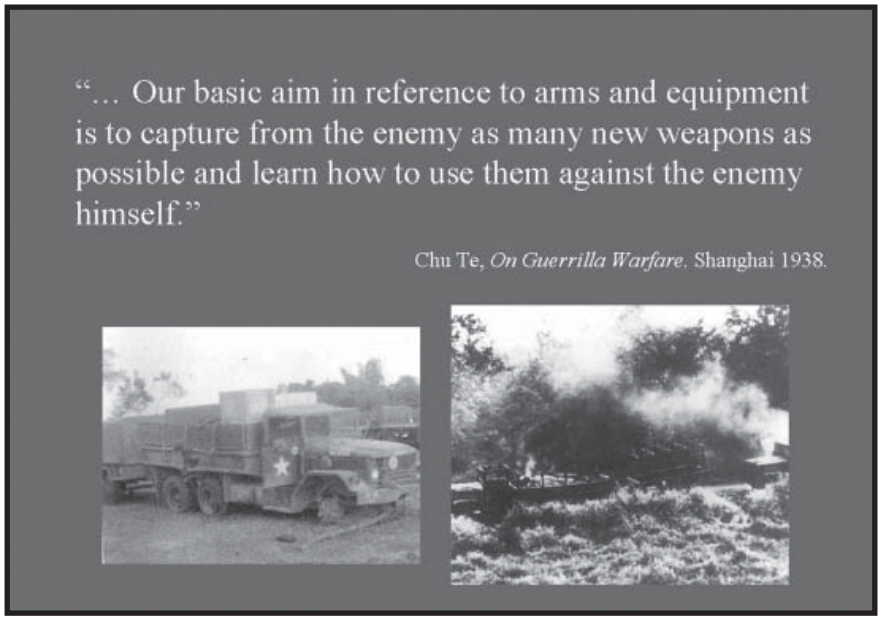


Figure 9

targets that didn't move much—even more enticing was the high volume of rich logistic traffic that flowed between them (**Figure 9**). Despite the increasing use of tactical and in-theater air for resupply, the primary method of resupply for most of the war remained overland and by road.

The bases supporting the 25th Infantry Division at and surrounding Cu Chi provides a good example of this. By the summer of 1968, the Cu Chi bases were being supported by four convoys a day, totaling over 268 vehicles, being pushed out from the Long Binh depot complex. Despite taking all the "usual precautions," including well placed artillery support, patrols, ambushes, search and destroy ops along the route, out posts at critical junctions etc., problems with guerrilla attacks persisted.[22]

Frustrations with recurring losses, rose to such a level that in August 1968 the 25th Division "developed new aggressive convoy procedures."[23] "Convoys were divided into smaller, self-sufficient march units. Ammunition and fuel vehicles were placed at the rear to prevent an entire convoy from being blocked with burning vehicles, wreckers and spare vehicles were added… a major innovation was having the convoy commander airborne from where he directed march units and security forces… gunship cover was arranged ahead of time," particularly for sensitive passages. Convoy personnel were retrained on the new robust procedures. It did not take long for these new methods to reap results.[24]

Insurgent attacks on convoys soon had very different endings. Instead of being a source of insurgent supply, US forces began to kill substantial numbers of enemy attackers and capture their weapons! By taking this approach, "the division had turned a defensive situation into a highly profitable offensive maneuver."[25] Besides limiting the insurgents resupply capacity, this practice had a positive effect on the surrounding civilian communities—through the regular employment of these practices, the roads also became safer for civilian commerce and agricultural activity.[26] By taking this approach, the US forces finally effectively addressed one of the operational tenets of Mao inspired communist insurgents(**Figure 10**). As such this case serves as a nice example of the importance of understanding the linkages, such that they are, between your own logistics practices, those of your enemy's, particularly in an insurgent environment, and your possibilities for delivering—literally—desired stability outcomes supportive of civil life.

But there are a few more lose threads I'd like to tie up here, though I do not have a slide to address this. While in Vietnam, the American Army did its best to not only arm the ARVN with modern American materiel, but to inculcate the ARVN with American-style, technology-driven, big Army logistics methods required to sustain such materiel. As part of our assistance to the Republic of South

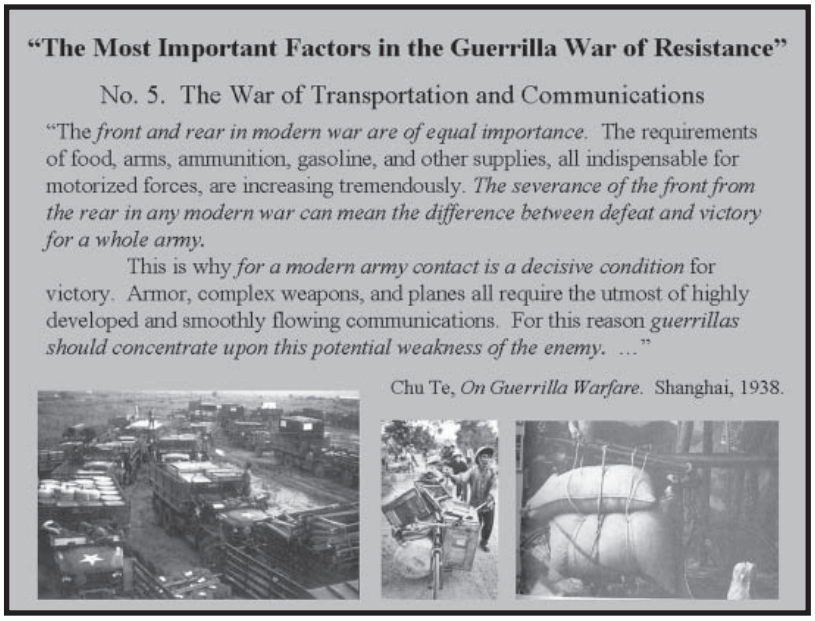


Figure 10

Vietnam, the US sold or gave to them millions of dollars of materiel and sent hundred of South Vietnamese to school to maintain it.

In the US effort to build up the ARVN, it seems that incomplete consideration was given to not only the logistical *suitability* but also the long-term *sustainability* of high-tech, logistics-intensive equipment given the cultural and economic liabilities endemic in South Vietnamese society at the time and the inevitability of a comprehensive American pullout.

In this regard, the NVA's more gradual adoption of modern "big Army logistics methods" was *more enduring because it was accomplished at a pace sustainable by the North Vietnamese themselves* and was not overly reliant upon the overwhelming beneficence of any one foreign national benefactor (all Soviet block countries were contributors of industrially produced material, as was China).

Furthermore, the North Vietnamese logistics modernization effort was also accomplished "on top of" an indigenous guerrilla logistics base that never really went away. While it is true guerrilla logistics methods are often primitive and slow to regenerate combat power—particularly in the face of overwhelming strikes—the retention of this "reserve" capability and this way of flexible thinking about sustainment kept the proverbial logistics rug from ever being completely pulled out from under the Vietnamese communist forces.

The result was that just as the NVA completed their modernization and logistics transformation on their own terms and was ready for the final push into Saigon, the ARVN was increasingly forced to sustain it's new high-tech equipment itself.[27] This was something the ARVN was ill equipped to do because such logistic capability was artificially grafted onto it. Furthermore, ARVN capabilities had virtually no linkage either materielly or ideologically to any indigenous or locally sustainable logistic capability. In contrast, the NVA's logistics capabilities were more suitable and sustainable because they were authentically homegrown.

From this conflict one can see that the ability to rapidly change logistical practices as required in an asymmetrical environment is of great significance and cannot be ignored. In this case the Communist forces' deeply rooted willingness to change and leverage every logistically advantageous development, whether or not it was in the form of a technological advance, setback, or simplification was instrumental in keeping them in the fight for the duration necessary for victory.

In contrast, US efforts to change logistical practices often appear cumbersome and slow because of their inextricable linkages to complex technological solutions, and undying faith in the principle of bulk.

In conclusion, I'd like to leave you with a few parting points to ponder about insurgent and counter insurgency logistics as I see them revealed during this last large-scale American experience fighting an insurgency during the Vietnam War (**Figure 11**).

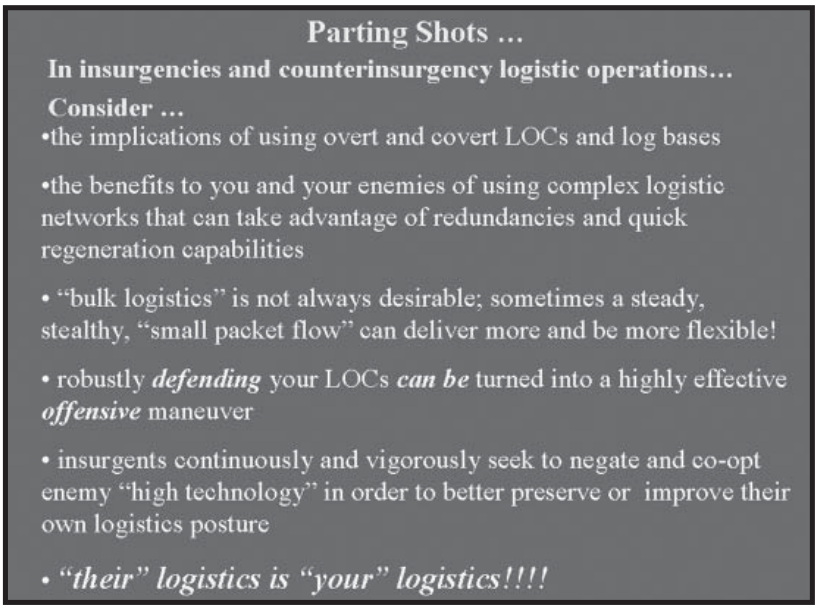


Figure 11

In insurgencies and counter-insurgency logistic operations, operators at all levels of war must be mindful of the implications of using overt and covert LOCs and logistics bases. Direct or linear LOCs are not always the most effective. There are benefits for both insurgents and counter-insurgents to using complex logistics networks that can take advantage of redundancies and quick regeneration capabilities. Bulk logistics have liabilities too. Sometimes a steady, stealthy, "small packet flow" can deliver more! Robustly defending your LOCs can be turned into a highly effective form of offensive maneuver against insurgents. Based on the Vietnam experience, it should come as no surprise that insurgents continuously and vigorously seek to negate and co-opt counter-insurgency higher-technology, in order to better preserve or improve their own logistics posture; it is a tenet of existing insurgent logistics doctrine. Lastly, one should never forget that in insurgencies, "their" logistics, is "your" logistics!

Notes

1. Chu Te (a.k.a. "Teh" or "Geh") Chu Te went on in the 1950s to become the Commander in Chief of the "People's Liberation Army," also known as the Chinese Red Army. Chu Te, "On Guerrilla Warfare," translated and edited by Gene Z. Hanrahan, ed. *Chinese Communist Guerrilla Warfare Tactics* (Boulder, Colorado: Paladin Press, 1974), 3, 63-74.

2. Ibid., 66-69.

3. Ibid., 69.

4. Ibid.

5. Ming Fan, "A Textbook on Guerrilla Warfare," translated by and reprinted in Gene Z. Hanrahan, ed. *Chinese Communist Guerrilla Warfare Tactics* (Boulder, Colo.: Paladin Press, 1974), 76-78.

6. Ibid., 76-77.

7. Ibid., 77.

8. Ibid.

9. Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict* (New York: Brassey's, 1991), 134-135; Charles R. Shrader, *Logistics in the First Indochina War, 1945-1954: Volume I: The Logistical Environment* (Carlisle, Pa., 1994), 122, 128. While Dr. Shrader does not specifically identify Te's writing as an influence on Giap or Ho, he does extensively detail the influence of Chinese communists on the development of Viet Minh logistics infrastructure and practices.

10. Ibid., 162.

11. Stanley Karnow, *Vietnam: A History* (New York: Pinguin Books, 1983), 253-254.

12. Richard L. Stevens, *The Trail: A History of the Ho Chi Minh Trail and the Role of Nature in the War in Vietnam* (New York: Garland Publishing, 1993), x.

13. Ibid., x-xi citing "The Special War," *Time*, May 19, 1967, p. 34; Michael Maclear, *The Ten Thousand Day War: Vietnam, 1945-1975* (New York: St Martin's Press, 1981),151, 172-173, 182; "The Indispensable Lifeline," *Time*, February 15, 1971, p. 28; "Untold Story of the Ho Chi Minh Trail," *U.S. News and World Report*, February 15, 1971, p. 23.

14. Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, Mass.: MIT Press, 1996), 3-7; George L. Weiss, "Battle for Control of the Ho Chi Minh Trail," *Armed Forces Journal* (February 15, 1972), 19.

15. Stevens, xi.

16. Ibid., x-xi.

17. Weiss, 19.

18. Thomas J. McDonald, “Logistics in the Republic of Vietnam,” *Army Logistician* January-February 1970, 10.

19. Department of the Army, *U.S. Army Counterguerrilla Operations Handbook* Reprint edition. (Guilford, Conn.: Lyons Press, 2004), 7-1—7-2. This source is not Vietnam era doctrine, it remains reflective of the thinking in that period about logistics bases.

20. John H. Hay, Jr., *Vietnam Studies: Tactical and Materiel Innovations* (Washington, D.C.: Department of the Army, 1989), 151.

21. Ibid., 151-152.

22. Ibid., 154.

23. Ibid.

24. Ibid., 154-155.

25. Ibid.

26. Ibid.

27. Thompson, 217-218.

MACV's Dilemma: Changes for the United States and the Conduct of the War on the Ground in Vietnam in 1968

By John R. McQueney, Jr.

"It is not the purpose of war to annihilate those who provoke it, but to cause them to mend their ways."

General Maxwell Taylor before the Fulbright committee in 1966 quoting the Greek Historian Polybius

I. 1968-the War and America in Transition

1968 was a watershed year in Vietnam and in America. Three things happened in that year that served to change the direction of the war and the Rules of Engagement or ROE. Prior to 1968, Military Assistance Command, Vietnam (MACV) and most Americans believed there really was "light at the end of the tunnel" in this war as General Westmoreland, Commander, MACV (COMUS-MACV), had confidently announced to the public in November of 1967 during a tour in Washington.[1] The tactic of attrition had worn down the Viet Cong in South Vietnam and MACV would soon be able to mop up what few enemy remained. By and large, General Westmoreland and the staff of MACV felt confident that the war, as it was being waged, was succeeding and the ROE were effective in controlling civilian losses. The events of 1968 served to alter that view, and the war and rules for fighting the war would change. This paper will examine these critical events in light of how they influenced changes in the ROE used to control the war in Vietnam and the new ROE for MACV in 1968.

The first key event that occurred in 1968 was the famous Tet Offensive conducted by the Peoples Army Vietnam (PAVN) that began on 31 January 1968 and sputtered on until March in some areas, though the major fighting was over by mid February. The North Vietnamese had hoped and planned for a general uprising of the population in the South and had ordered the Viet Cong to initiate guerrilla attacks across the country. Especially brutal was the fighting in the large urban areas of Saigon and the old imperial capitol of Hue. In these cities, thousands of civilians perished and scores of buildings were destroyed in the fierce fighting. These guerilla attacks against the cities were to be supported by a general offensive by PAVN regular forces in the South that never materialized. Now considered a significant tactical defeat for the PAVN, the Viet Cong in the South suffered by far the most and were by and large, rendered ineffective. The offensive did, however, have a major impact on the US home front. More and more people became disillusioned with the United States involvement in Vietnam and especially with the tactic of attrition in Vietnam.[2]

After Tet many more Americans began to question if the US could win the war as it was being fought. These questions included doubts about the ROE. The offensive included large scale fighting in urban areas, most notably in the old imperial capitol of Hue and in the capital city of South Vietnam, Saigon. This fighting in the cities was a first in the war and the resulting civilian casualties and destruction of civilian buildings caused concern among observers at home and in MACV. The ROE had not addressed this type of fighting for MACV's plan had long been to avoid fighting in cities and towns and MACV had been successful in avoiding large scale fighting in populated areas before Tet. Now MACV would have to consider specific instructions on the use of firepower in urban areas. The wide spread destruction caused by American firepower in the areas of Hue and Saigon could not be repeated; the political fall-out in America would be too great. As a result of the Tet offensive and the increase in fighting for the year, the number of civilian casualties almost doubled from 1967 to 1968. This is partially because one of the stated purposes of the operation by the PAVN was to bring the war to the people of Vietnam in an effort to convince them that the government of South Viet Nan was incapable of protecting them. This brought the war to populated areas where civilians were the victims of attacks by both sides. Whether caused by Viet Cong or MACV action, critics of the war and of the ROE saw this increase in civilian casualties as being unacceptable.[3] By bringing the war into the cities and towns of the Republic of Vietnam and by shaking the American publics' confidence in current tactics, the Tet offensive would help change the direction of the war and the ROE.

Another key event of 1968 that would impact ROE was the revelation of how Unites States Army discipline had broken down during an operation conducted on 16 March 1968 in Quang Ngai province centering on the village of Son My and in the hamlet of My Lai.[4] Exact numbers are hard to determine, but roughly 500 Vietnamese civilians were killed during the operation, many of them women, children, and old people. The concerted effort of several senior commanders to conceal the incident only added to the growing perception that the war and its methods were immoral. The events became public more than a year after the operation after a discharged veteran wrote a letter and sent it to congressmen and to the Army asking them to investigate something "very dark indeed."[5] Lieutenant General William R. Peers led the exhaustive investigation and produced a detailed report on the incident. His recommendations contained in the report included re-looking the ROE and increasing the restrictions on the use of firepower.[6] More and more Americans began to believe that My Lai was not an isolated incident and the rules the Untied States forces were using to conduct the war were not working.

As the news of the incident and subsequent inquiry spread, the staff of MACV realized that the ROE, as formulated, had not worked as planned and the ROE were not consistent with a new approach to the war. By October of 1968 MACV approved completely revised ROE. The revelations of the My Lai incident inspired several changes in the ROE. Perhaps most significant was that MACV would direct that combat operations were to be closely monitored for enforcement of the ROE. In addition, as will be seen, subsequent editions of MACV's ROE would be more detailed in scope and less open to interpretation by subordinate commanders. This creative interpretation of limits on firepower had led in some ways to the plan for the attack on My Lai in the first place. The unit involved in the attack had suffered casualties caused by land mines and booby traps in the area. The unit suspected the village harbored Viet Cong guerrillas, but had been unable to find or attack any Viet Cong to retaliate for the loss of Americans to booby traps. The unit attacked with vengeance on their minds. Attacking a village in retaliation for setting out land mines had not been directly addressed in previous ROE. It had been left to the discretion of ground unit commanders to determine if the attack was warranted. In some ways this discretion given to the ground commanders had worked against the enforcement of the ROE. Now, the new ROE would place further restrictions on ground and air attacks on populated areas. Retaliation for booby traps would not be justification for attacking a village after the new ROE went into effect. Finally, the ROE would be combined into one document, making it easier to understand thereby increasing control of operations. In a large measure, what occurred at My Lai in 1968 can be blamed on a loss of command and control of an operation on the ground. Any tightening of the ROE that increased command and control of units engaged in combat operations on the ground would by default serve the political, military as well as the humanitarian goals of the commander of MACV of limiting civilian losses. As will be seen, changes in the ROE after 1968 served to limit the discretion of ground commanders, reflecting concerns, arising from the My Lai incident, that command and control of MACV units was sometimes at fault for civilian losses.

Exceeding both Tet and My Lai in importance, the most critical change in the war and for the ROE occurred on 1 July 1968 as General Creighton Abrams took over as COMUSMACV from General Westmoreland. He would bring a new way of fighting the war, a method that was, by and large, a repudiation of General Westmoreland's "big unit war." President Johnson had first considered Abrams for the job in 1964, along with Generals Westmoreland, Palmer and Johnson. LBJ chose Westmoreland and Abrams would have to wait. In the late spring of 1967, President Johnson sent Abrams to MACV as deputy commander. Apparently, LBJ's original intent was to replace Westmoreland that summer. However, the President changed his mind and Westmoreland stayed on though the year until

the summer of 1968. Assistant Secretary of Defense Cyrus Vance later confirmed this change of heart by the President and it was Westmoreland himself who said after Tet that he was now going to be blamed for losing the war even though he was supposed to be out of command before 1967 was over.[7]

Once in command, General Abrams re-examined how well MACV had executed its mission of preserving the independence of the Republic of Vietnam. He noted that MACV had succeeded in limiting the ability of the PAVN to mount large-scale operations in the Republic of Vietnam. MACV had not, however, succeeded in providing peace and security to the population. The chief result of his review was the development of the One War concept that provided a fundamental change in the way the war would be fought. Previously, MACV had aimed at fighting the PAVN in the ever elusive "big unit war" or "war of the big battalions" and had left the goal of pacification of the Vietnamese countryside pretty much to the South Vietnamese Army. Abrams, as COMUSMACV, would redirect United States' efforts to focus on controlling what he saw as the center of gravity in the war, the population of South Vietnam.[8] This redirection and refocusing of the war would entail changes in the ROE as well.

The American effort under General Abrams would focus on the goal of pacification. While serving as the Deputy Chief of Staff for Operations under Army Chief of Staff Harold K. Johnson, Abrams had been strongly influenced by a study done by the Department of the Army staff in 1966 called the Program for the Pacification and Long-Term Development of Vietnam (PROVN). American military strategists had been examining the notion of counter-insurgency warfare since the 1950's. The experience of men such as British army Colonel Richard Cutterbuck fighting the Malaysian civil war had convinced them that control of the population was the key to victory in this type of war. Forward thinking theorists also noted that firepower, indiscriminately applied, tended to lessen one's control of the population. General Johnson, the Army Chief of Staff from 1964 though 1968, had worked with Colonel Cutterbuck in the early 1960's and strongly agreed with his approach to counter-insurgency warfare. General Johnson had directed the Army staff to begin what became the PROVN study in 1965 to determine the best approach to fighting the war in Vietnam.[9] He published the study on 1 March 1966 to a less than enthusiastic response from the members of the Joint Chiefs of Staff and from General Westmoreland. The Air Force and Navy were much more concerned with what they viewed as an artificial limitation on bombing than with counterinsurgency war on the ground, and Westmoreland could hardly have embraced a study condemning his approach to the war. Implementing the study would require the appointment of a commander who supported its findings.[10]

The main point of the PROVN study was that in Vietnam the United States should focus its efforts on securing the population from attacks from the Viet Cong.[11] It advocated pursuing the "pacification" of the hamlets, villages, and districts previously controlled by the Viet Cong as opposed to focusing on killing the enemy. Pacification aimed to bring control of an area to the South Vietnamese government by rooting out Viet Cong insurgents and political cadre. Importantly for the ROE, the PROVN study had questioned the utility of the application of firepower to gain an impressive body count of enemy killed. The study indicated that the use of excessive force in many ways negatively influenced how the people viewed the South Vietnamese government (GVN) and the Americans sent to assist the GVN. It recommended less use of firepower to combat the insurgency. The program also advocated equipping and training the Armed Forces of the Republic of Vietnam (AFRVN) to take over a larger share of the fighting in South Vietnam.[12] General Westmoreland could not implement the changes recommended in this study without admitting that his tactic of attrition was wrong and not working. He did not change the way the war was being fought. General Abrams, however, would use the PROVN study as the basis for his new approach to the war and ROE. This would fundamentally change the focus of the war and the ROE.

"Where Westmoreland was a search-and-destroy and count-the-bodies man, Abrams proved to be an interdict-and-weigh-the-rice man," according to an anonymous journalist quoted by Sorley. Along with Krepinevich and Lewy, Sorley noted that the "body count" as a measure of success was perhaps the most corrupting measure of progress in the whole war.[13] "The body count does not have much to do with the outcome of the war", and "is sort of a treadmill" Abrams said.[14] Abrams would no longer measure success with a body count but by areas secured or "pacified." This new war would be a "clear and hold" war not a "search and destroy war."[15] General Abrams also recognized that the enemy's supply system or (in military terms), his logistics effort was critical to his war effort or, (in short), his center of gravity as Clausewitz would describe it. Abrams' new war would aim to cut the enemy's supply line that focused on concentrating supplies in the South in advance of any operation. This supply line consisted of supplies garnered from the countryside as well as supplies ferried in along the "Ho Chi Minh Trail" and from the Cambodian port of Sihanoukville.[16] For General Abrams, a focus on cutting the enemy's supply lines and prepositioned stocks would remove previous emphasis on killing enemy soldiers. The lessening of importance of the body count under Abrams would assist American commanders and units in executing operations in accordance with the ROE. They would no longer feel it necessary to ring up impressive body counts as a measure of progress while disregarding, or at least marginalizing, concern for civilian

losses; this problem had been the crux of the dilemma. The new One War would solve the dilemma.

Such redirection of the war takes time, however, and certain United States commanders and units continued to wage the war using the old style Army Concept until 1970 when too few American combat troops remained to conduct large-scale operations. The 9th Infantry Division's Operation SPEEDY EXPRESS lasting from 1 December 1968-1 June 1969 in the Mekong Delta area is a good example of some commanders continued obsession with attrition.[17] The commander of the operation later complimented himself for his unit's large body count. Other observers felt the large count to be dubious. Sorley cites an April 1969 comment General Abrams made about the 4th Infantry Division (then still conducting Operation MACARTHUR) to demonstrate this point. He called the division's operations "ponderous" and said, "they haven't been smart, haven't been skillful." Later, in 1969, General Abrams would still be complaining about the 4th Division's penchant for running multi-battalion operations. He had visited the division and they had told him their frustration at being unable to locate any PAVN battalions and "really chop them up." Abrams explained to the division that these operations wasted time and manpower and were not in keeping with his vision of the war.[18] An argument can be made that General Abrams should have cashiered the responsible commanders for if they did not directly violate his orders on ROE they may have paid them only lip service. Abrams overall command style dictated a different tact; he would bring the commanders to his point of view by convincing them of the usefulness of his new approach and that is what he did as fewer commanders conducted operations that relied on body counts to measure progress.

Why did some commanders continue to wage war in Vietnam with the old methods? Several explanations are possible. Military commanders and units are creatures of habit. The stresses of combat tend to reinforce continued use of proven methods, lest any change invite disaster. Commanders in MACV had learned their craft using firepower to overwhelm the enemy in World War II and in Korea. Years of experience in Vietnam had also taught them that this was the way to fight a war. General Abrams' new methods were untried and came with no guarantee of success. American military commanders had been reared to expect victory though firepower and were not prepared to risk losing on untried methods. Cultural factors enter into the equation as well. Some American commanders were frankly not convinced that the AFRVN could be made into an effective force and therefore, by default, Americans had to fight the war for them using tried and true methods. Finally, simply put, some commanders were stubborn and did not wish to change their way of war and resisted the One War concept.

In addition to possessing a cultural resistance to change, the military is not a top-down driven as some might think. Casual observers often assume military commanders have absolute control over the actions of their subordinates. In reality subordinate leaders can violate the spirit, if not the letter of a command. In addition, commanders are often loath to personally direct and oversee the operations of subordinate commanders; this type of scrutiny rarely produces successful and aggressive units. In many ways this explains why some commanders continued to conduct big unit war type operations even after Abrams directed a change in the war's focus. In the end, General Abrams would have to overcome this inertia to change. This he would do, but change came too late to alter the outcome of the war.

In 1968 General Abrams became the commander of MACV and instituted a new way of fighting the war. This One War concept, based in large part on recommendations made in the PROVN study directed by Army Chief of Staff General Johnson in 1966 would place more emphasis on pacification of the countryside and less on large unit operations in the remote jungles and mountains. The aim of American war efforts would be now to control the population. The new indicator of progress would be the number of villages under GVN control, and not the number of enemy killed the infamous body count. In addition, more and more of the fighting was to be done by the ARVN. This new approach would also influence the ROE. More restrictions on the application of firepower would be placed on commanders on the ground. As is typical with military operations, change takes time and some commanders still conducted operations in the now discarded "big unit" war mode. Abrams would have to change not only his concept and ROE, but also the attitudes and behaviors of some of his subordinates.

II. The New ROE-1968

A new way of war with new tactics called for a re-examination of the rules of engagement. General Abrams talked to his Inspector General, Colonel Robert M. Cook and told him, "Cook, rewrite the rules of engagement." Several factors drove Abrams to order the rules be rewritten. First and foremost, the rules had to reflect MACV's reworked priorities; priorities that were based on Abrams views. The older ROE were designed for Westmoreland's attrition-based strategy, a strategy based on using firepower to kill enough of the enemy to force his surrender. The new rules, however, would have to directly support the pacification efforts.

These rewritten rules would place greater emphasis on controlling firepower and limiting civilian casualties. They would follow the recommendations made in the PROVN study, recommendations to place greater limits on the use of fire-

power. Among these limits would be increasing the participation of GVN authorities in approving Specified Strike Zones (SSZs) and the application of firepower. This would serve the new goals of pacification and bolstering the confidence of the people of the RVN in the government. An argument might be made that this simply placed the burden of approving firepower attacks on a still developing and largely compliant RVN government. This misses a main point of the rewritten rules, however, for in the previous rules, American commanders did not even have to contact RVN officials before applying firepower. Now, they would have to consult local RVN officials. Cook's new rules changed how American firepower was used in Vietnam.[19] The directives now changed as conditions had changed, becoming more restrictive on the use of fire power; much to the chagrin of some American field commanders who would later complain of fighting the war with "one hand tied behind their backs." Of course, a strategy based on controlling the population and a closer cooperation with the ARVN would require greater restrictions on ground commanders and place less emphasis on killing an ever-elusive enemy with massive firepower. As discussed above, not all commanders agreed with this new approach, and General Abrams would work to assert his command and influence to alter their approach. Without a doubt, the driving force behind changes to the approach to the war and the ROE was General Abrams and his ideas of how to fight the war.

The chief tangible result of General Abrams' call for a re-examination of MACV's conduct of the war was a new directive, which replaced both 525-18 for artillery, and 95-4 for air delivered firepower. The new directive, 525-13 *Combat Operations: Rules of Engagement for the Use of Artillery, Tanks, Mortars, Naval Gunfire, and Air and Armed Helicopter Support* dated 12 October 1968 combined the two previous directives into one all-encompassing work.

One of MACV's intentions in publishing the new ROE was to simplify field commanders' understanding of the ROE by combining directives covering ROE into one document and to ensure compliance with the stated intent of the ROE. The introduction to the directive states, "[All] practicable means will be employed to limit the risk to lives and property of friendly forces and civilians." This statement was an amplification of the statements made in the MACV Directives 525-3 and 525-4 of 1965 and 1966. What is significant in this directive is that the statement leads off the directive covering actual ROE for use of weapons. In previous editions of the ROE these sorts of statements were found only in directives covering general tactics and techniques—this was a significant change. As such the order to limit civilian casualties is more specific and less likely to be misinterpreted or ignored by ground commanders. This is in keeping with the overall trend of Abrams' One War concept to limit firepower and control the civilian population. In an effort to further curb creative interpretation of the

rules it added, “This directive will not be modified by subordinate commanders, nor will directives modifying or interpreting substantive rules in the directive be published by subordinate commands.” The directive noted that it was not the intent of the directive to unnecessarily restrict subordinate commanders, but that all commanders remained responsible for their actions and orders.[20] General Abrams was going to hold commanders responsible for adhering to the ROE. This lack of concern by the chain-of-command in the 23d Division for adhering to the ROE and reporting the My Lai incident would be later noted in the Peer’s report on the incident.[21]

A key change to the ROE was that MACV now defined some common terms. In doing so, General Abrams increased his control over the actions of the commanders in the field. Key to this was defining what exactly a specified strike zone (SSZ) was, who could authorize one, for how long, and who could authorize fire into the zone. Previous editions of the ROE had not defined these terms and this had led to differing interpretations of the meaning of the terms. Previous directives had not been as clear about definitions of key terms and MACV addressed this concern. An SSZ was now defined as an area designated for a specific period of time by the government of South Vietnam as containing no friendly forces or civilians. In previous editions of the ROE, American commanders could approve the establishment of an SSZ and then only had to inform the GVN representatives. The addition of the time factor was also a new limitation in response to some confusion concerning SSZs. This confusion had arisen earlier in the war as United States commanders began to consider SSZs as more or less permanent in nature.

Previous ROE had not defined exactly what an urban area was. The large-scale fighting in Saigon and Hue during Tet in January had caused MACV to consider the rules needed for this type of fighting. Urban areas were now defined as areas containing a high density of population, and Saigon and Da Nang were given as examples. This loophole had allowed some commanders to claim their fire was not directed at what they had considered an urban area. Finally, an airstrike was defined as an attack on specific objectives by fighter-bomber or attack aircraft. By precisely defining terms and being specific as to who could authorize what types of fire, General Abrams was asserting greater control of his forces to limit the application of firepower, and to further the stated aims of the new One War concept.

Beyond defining common terms, the new ROE further detailed the specifics of artillery and air delivered firepower. Previously, Directives 525-18 and 95-4 controlled artillery and air delivered firepower. Now, these types of firepower were addressed in two annexes of a single directive. Annex A covered the rules for the use of artillery, mortar, tank, riverine and naval gunfire.[22] Continuing the

theme developed in 525-18, the new directive placed considerable emphasis on the "exercise of sound judgement" in delivering this type of fire and preventing casualties amongst civilians.[23] A major change occurred in the control measures for unobserved fire into SSZs. Previously, unobserved fire could be directed into a SSZ without informing the chain-of-command. Partially in reaction to charges that the SSZs were an excuse for United States units to fire indiscriminately and without limits, MACV and Abrams tightened the rules and required notification of the appropriate clearance authority before the fire mission. For unobserved fire into uninhabited areas outside of SSZs the directive required units to obtain approval for the mission from the MACV Province Chief Advisor or District Advisor as well as from the United States forces commander. The advisor's permission was also required for observed fire on targets of opportunity not clearly identified as hostile.[24] This requirement to obtain permission for the attack from the MACV advisor to the ARVN units was an attempt by MACV to prevent United States forces from firing on South Vietnamese forces and civilians by mistake. It is also reflective of General Abrams' One War concept that aimed to more closely integrate the operations of United States and South Vietnamese forces.

The directive retained the control measures for fire into villages and hamlets laid out in 525-18 and added still more restrictions. This was further demonstration of General Abrams' intent to more fully control the application of MACV firepower. Chiefly, all such fires were now to be controlled by an observer and executed only after obtaining approval from the United States advisor to ARVN unit in the area. The new directive tightened the requirement for firing on villages by now requiring approval for the mission from a battalion or higher-level unit commander. MACV added a new paragraph addressing the special issue of fire into urban areas. All such fires "must preclude unnecessary destruction of civilian property and must by nature require greater restrictions than the rules of engagement for less populated areas." All such missions were to be controlled by an observer and required the approval of a corps (South Vietnamese) or field force, or Naval Force, Vietnam (a US three star general officer) commander.[25] Prior to the mission, MACV units were to warn and secure the cooperation of the inhabitants by using loudspeakers or leaflets, even if United States forces were receiving fire from the area. The directive added that riot control agents, or tear gas was to be used to "maximum extent possible." MACV's intent in pushing the use of tear gas was to limit the use of artillery in urban areas and the leadership of MACV believed the use of tear gas to be a viable alternative method for rooting out an enemy in urban areas without destroying civilian property or killing civilians.[26] The widespread destruction caused by indiscriminate firing on urban areas during the Tet offensive was to be limited by the new ROE. As with fire into SSZs, these

more restrictive measures for fire into populated areas were designed to better control the use of artillery and promote the new way of war for MACV.

Addressing the concerns raised by critics of the war over the destruction of religious monuments by American forces, especially during the Tet offensive, MACV added a paragraph controlling attacks on these areas. MACV noted that the enemy took advantage of these areas to provide cover, and the ROE would need to address how to engage the enemy who chose to fight from religious monuments or shrines. The Hague and Geneva Conventions had forbidden the use of religious monuments for military purposes, or as targets.[27] Fire on religious monuments and other public buildings henceforth required the approval of brigade or higher level commanders. "Weapons and forces used will be those which ensure prompt defeat of enemy forces with minimum damage to structures in the area." MACV added a specific addition to this requirement for the palace grounds of the Hue Citadel. During the Tet offensive PAVN units had barricaded themselves in this ancient compound and United States forces had used firepower to force them out. The Citadel was partially destroyed as a result. The directive urged commanders "to consider the employment of massive quantities of chemical smoke (CS) crystal [a solid form of tear gas] in shrines and religious and cultural monuments."[28] The directive retained similar restrictions on fire near the Cambodian border as were found in 525-18. All firing within 2000 meters of the border were to be observed and all other applicable restrictions were to apply as well.[29] MACV did not yet have the authority to widen the war into the well know PAVN sanctuaries inside Cambodia.

Continued concerns with the use of air-delivered firepower caused MACV to place greater restrictions on this type of firepower as it had with artillery. Annex B controlled the use of air-delivered firepower minus the ARCLIGHT strikes of B-52's. These strikes were now controlled in a separate directive discussed below. As with 95-2/4, the new directive stated, "All pilots will endeavor to minimize noncombatant casualties and civilian property damage."[30] In keeping in line with the new restrictions on artillery fire into SSZs, air attacks into these designated areas now required the pilots obtain clearance from MACV authorities before beginning the attack. All air attacks were to be controlled by an airborne Forward Air Controller (FAC.) Specific emergency exceptions to this requirement were spelled out. At the very least, in such emergencies, attacking pilots needed to be in radio contact with the American commander on the ground. Units assigned armed helicopters and strike aircraft were now required to maintain records indicating types of targets attacked as well as the amount and type of ordnance expended on targets.[31] General Abrams imposed this requirement in an attempt to document how much ordnance was being expending on each target.

Critics of the war had been charging that the armed helicopters were the greatest offenders when it came to attacking noncombatants.

Much like with artillery, growing concerns with the overuse of attacks on populated areas from the air were addressed. Annex B covered the use of air attacks on villages and hamlets, as had 95-2 and 95-4. The same restrictions applied, however, approval for such strikes now needed to come from a higher level commander. The new directive required the approval from the attacking American ground task force (battalion level) or higher commander for the attack where the old directives had not specified the command level needed for approval.[32] Such areas were to be warned of the pending attack by speakers or leaflets, if the attack was not in conjunction with a ground attack. Attacks into urban areas were also addressed. Such attacks "must preclude unnecessary destruction of civilian property and must by nature require greater restrictions than the Rules of Engagement for less populated areas."[33] Such attacks always required a FAC to be in control of the strike. Approval for such attacks needed to be obtained from both the Corps and Field Force commander (three star general level). This was the same level of commanded needed for approval for using artillery fire in urban areas. Even when MACV units were receiving fire from an area, residents of the area were always to be given warning of the attack in order to obtain their cooperation and support. Again, similar restrictions were now in place for artillery fire.

The new ROE contained similar restrictions on the use of aircraft near the borders of the RVN as had been in previous ROE. United States aircraft were not to cross the demilitarized zone or the border with Cambodia without the approval of COMUSMACV, General Abrams. Attacks within 5,000 meters of the Cambodian border required a FAC to control the strike and only General Abrams could waive this requirement. Following similar restrictions now in place for artillery attacks on religious shrines and monuments, air attacks required the approval of a brigade or higher level commander. The commander also needed to positively identify hostile enemy action and ensure the destruction of civilian structures was kept to a minimum.[34] Aircraft that had not dropped their bombs on a target typically jettisoned their bombs before landing. This was done for the safety of the aircraft and crew. Pilots, sensibly enough, have an aversion to landing aircraft loaded with bombs. As with Directives 952 and 95-4, the jettisoning of ordnance was to only be into designated areas and such jettisoning was to be monitored by ground air control radar. Aircraft were authorized to jettison bombs in other areas only during an in-flight emergency when there an immediate threat existed to the aircraft and crew. The directive concluded, "Every effort will be made to insure that munitions are not jettisoned so that they impact into or near inhabited areas."[35]

Critics of the United States' prosecution of the war had zeroed in on the use of armed helicopters to attack ground targets. In particular, the critics charged that the helicopters were one of the greatest offenders of the rule of proportionality or military necessity. This generally accepted limit on warfare rule directed that belligerents not use excessive force to attack an enemy.[36] One charge leveled was that American forces commonly used armed helicopters to attack villages and small bands of guerrillas on the ground. Whether the charges were true or not, such tactics were addressed in the rules covering the use of armed helicopters. First, armed helicopters were now defined as those being armed with automatic weapons or rockets. Armed helicopters could fire only when the helicopter was in direct radio contact with the supported ground force commander; the target or target marker was visually identified; and friendly and civilian positions were positively identified. In urban areas, only point targets could be attacked. The helicopters could not fire on area targets in cities.[37] This restriction came about as a result of MACV's recognition that during the Tet offensive helicopters had caused civilian losses in urban areas. Another restriction added that door gunners could not fire without the permission of the aircraft commander. Helicopters could fire in self-defense only when the source of the fire could be visually identified, the attack could be positively directed against the source of the fire, and that the ground fire was of such intensity that counter-action was necessary.[38] The proscriptions on self-defense fire were aimed at curbing the image of the "trigger happy" gunship pilot.

Addressing growing concern from critics of the war, as well clarifying the previous series of messages from MACV covering the use of the mighty B-52 bomber in support of ground operations in South Vietnam, MACV published directive 95-14 *Aviation: ARCLIGHT Operations* on 3 July 1968. This directive detailed the special procedures for the use of this type of firepower in South Vietnam. It is important to recall that the Commander, MACV did not directly control these assets. General Westmoreland would note that the commander of the strategic air command controlled those bombers and targets in South Vietnam had to be approved by authorities in Washington.[39] The directive specified the objectives for the use of ARCLIGHT forces that included destroying enemy defensive works, stockpiles, command and control facilities, interdiction of enemy lines of communication, and troop concentrations. The directive noted the well-understood "psychological effect of heavy bombardment to harrass[sic] the enemy and destroy his will to fight."[40] General Westmoreland quoted the Major General Tompkins, commander of the 3d Marine Division who witnessed ARCLIGHT strikes in support of the Khe Sanh base in February and March of 1968. General Tompkins said after a strike that, "It was as if a little part of the world suddenly blew up for no apparent cause."[41] Such bombing required careful controls to

preclude causing non-combatant casualties and MACV placed these controls in this directive.

As for the specifics, the directive stated that MACV was responsible for nominating targets for the bombers. Strategic Air Command, based in the United States, controlled the bombers and executed the strikes once targets had been approved in Washington D.C. The targets were normally nominated and preplanned two days in advance of the strike. Ground units in contact could request diversion of the bombers to another target if it was approved by MACV.[42] A key to controlling the use of the bombers was that MACV now required specific, written requests for strikes. These requests had to include a statement that there were no non-combatants within one kilometer of the target box. The statement also needed to state that there were no dwellings in the target box, and if there were any, all had to be certified as being used by PAVN forces. No national monuments, shrines, temples, or places of worship could be located within the target area.[43] All of these restrictions are similar to restriction imposed by directive 525-13 concerning non-combatants, shrines and temples, and inhabited areas. The directive aimed to clarify lingering confusion over what could or could not be struck by an ARCLIGHT strike by the big bombers. In clarifying how and when the B-52s could be used, General Abrams furthered his goal of limiting the use of firepower. With clarified restrictions on the use of the bombers in RVN he also furthered the aims of the One War concept by limiting where and when targets could be struck.

How did commanders in the field receive the new restrictions? General Rosson, serving as General Abrams' deputy commander in 1969, related that he did not recall the field commanders having related unfavorably to the greater restrictions. He felt this was due to the fact they all had a chance to review the changes and had been given the chance to express their view of the changes, "and once the decision had been made, were expected to carry it out. Insofar as I am aware, they did."[44]

Overall, the new directives 525-13 and 95-14 placed greater restrictions on the use of firepower. Not only were the requirements for approval of fire increased, some common tactics such as the use of defensive fire were drastically curbed. These greater restrictions reflected General Abrams' and MACV's new perspective on the use of firepower and on the direction of the war. They were also in reaction to increasing domestic criticism of MACV battle tactics.

III. The New War and ROE, 1968

Three events in 1968 directly influenced the new rules of engagement used by American forces in South Vietnam. Collectively the effects of the three events

combined to influence MACV to produce a set of ROE that increased the restrictions placed on the use of firepower by ground forces. The Tet offensive, My Lai incident, and the appointment of General Abrams as the new commander changed the ROE. These changes included new restrictions on fire into urban and inhabited areas, defining who could approve attacks on targets, definitions of terms, and combining the ROE covering different types of attacks into one document. Far and away, the most important of these changes was the appointment of General Abrams as the new commander of MACV. He was the one who redirected the war to the One War strategy, and he was the one who ordered the ROE to fit this new approach to the war. One wonders how the war might have progressed had President Johnson made General Abrams the commander in the summer of 1967, as had been the original plan.

General Abrams' One War concept served to, by and large, solve the dilemma of how to use American firepower while at the same time promoting the stability of the RVN. The historians Krepinevich and Sorley cite a similar change in the war's direction following Abrams' appointment. The chosen tactics now matched the ROE and the aims of the war. They no longer encouraged commanders to apply firepower to rack up a high body count in order to show progress. Directive 525-13 is one of the best representations of this new war. It simplified the ROE while making the rules more restrictive. A key point is that the ROE became more restrictive on the use of American firepower even as MACV recognized the tactic of attrition was failing in Vietnam and acted to change it. General Abrams changed the tactics and the ROE in order to redirect the war. Future events would determine if he and MACV's efforts in Vietnam would succeed.

Solid, well thought out ROEs are a part of the good training and preparation of United States Armed forces. This has been a proud and honorable part of the American culture of war since the republic's founding. The historian Andrew Krepinevich notes that "the commander's dilemma that existed in Vietnam persists: What has priority—the traditional mission of closing with and destroying the enemy or population safety and security?"[45] The nation could perhaps do best to examine how MACV's ROE developed and evolved during the limited war waged in Vietnam and determine how best to apply what was learned.

Notes

1. Stanley Karnow, *Vietnam: A History*,. Penguin Books, NY, 1984, pp. 213-214.

2. Lewis Sorley, *A Better War*, pp. 7, 12-14.

3. Department of the Army Fact Sheet, "Civilian Casualty and Refugee Data and Rules of Engagement", Department of the Army, Washington, DC, 14 April 1971, RG 472, Records of US Forces in SEA, NARA, CMH Historians Background Files. The percentage of hospital admissions to Vietnamese hospital caused by war related injuries was 10% in 1967 and rose to 18% in 1968, by and large as a result of the Tet Offensive.

4. Vietnam then and now is organized in the following manner, from smallest to largest administrative unit: hamlet, village, district, and province. Several cities are separate independent units not a part of provinces: Hanoi, Hai Phong, Hue, Da Nang, and Saigon (Ho chi Minh City). Confusion then (and now) could arise over this organization. My Lai (4) was the one of the hamlets of the village of Son My. [5] David L. Anderson, Facing My Lai: Moving Beyond the Massacre, University Press of Kansas, Lawrence, KS, 1998, p. 10.

5. David L. Anderson, *Facing My Lai: Moving Beyond the Massacre*, University Press of Kansas, Lawrence, KS, 1998, p. 10.

6. "Report of the Department of the Army Review of the Preliminary Investigations into the My Lai Incident, Volume I, The Report of the Investigation", Department of the Army, Washington, D.C., 14 March 1970, pp. 12-7,8. Hereafter referred to as "Peer's Commission Repot."

7. Lewis Sorley *Honorable Warrior: Harold K. Johnson and the Ethics of Command*, University of Kansas Press, Lawrence, KS, 1998, pp. 270-271. Sorley speculates that LBJ changed his mind for a variety of reasons: to not undercut the perception of his own running of the war, to thwart Westmoreland's political objectives, and to simply spoil the common assumption that he was going to change MACV commanders.

8. Sorley, *A Better War*, pp. 2- 4

9. Sorley, *Honorable Warrior: Harold K. Johnson and the Ethics of Command*, pp228-234, 235.

10. Ibid., pp. 235, 237,

11. Sorley, *A Better War*, Ibid., p. 6.

12. Ibid., p. 24. See also, Lewis Sorley *Honorable Warrior: Harold K. Johnson and the Ethics of Command*, pp. 228-234, 235.

13. Sorley, *A Better War*, , p. 21.

14. Ibid., p. 38, 42.

15. Ibid., p. 29.

16. Ibid., p. 21.

17. Krepinevich, pp. 252-254. Combat After Action Report, Operation "Speedy Express", 1Dec 1968-1 Jun 1969, United States Forces Vietnam After Action Report, RG 472 Records of US Forces in SEA, NARA, pp. 1-3. The US 23rd and 101st Divisions also conducted Army Concept-style operations in 1969.

18. Sorley, *A Better War* p. 136, 191-2

19. Ibid., p. 28.

20. MACV Directive 525-13 Combat Operations: Rules of Engagement for the Use of Artillery, Tanks, Mortars, Naval Gunfire, and Air and Armed Helicopter Support, MACV Library, RG 472, Records of US Forces in SEA, NARA, 12 October 1968, p. 1-2.

21. Peers Commission Report, pp. 12-7,8.

22. "Riverine" forces were developed and used in the Me Kong River delta area of South Vietnam. These forces were composed of US Army ground troops transported and supported by US Navy small boats and gunboats. Observers agreed that the Riverine forces were some of the most successful in the war-when used properly.

23. MACV Directive 525-13, 12 October 1968, p. A1.

24. Ibid.

25. The government of South Vietnam divided the country into four Corps Tactical Zones (CTZ): I Corps in the north along the DMZ to 1V Corps in the Me Kong delta to the south. ARVN units were assigned to one of these CTZs . US forces were commanded by, from north to south, the III Marine Expeditionary Force commander, the I Field Force commander, and the II Field Force commander. See map annex for details.

26. MACV Directive 525-13, 12 October 1968, p. A2.

27. Department of the Army FM 27-10, "Law of Land Warfare", pp. 21, 152.

28. MACV Directive 525-13, 12 October 1968, p. A3. Later, critics of the war would charge the US with using "lethal gas" in its war efforts. In extremely concentrated doses military CS can kill (it suffocates), however such occurrences were rare and the use of riot control agents is not viewed as a violation of prohibitions against the use of "asphyxiating gases" in the Geneva Convention (see, FM 27-10 "Law of Land Warfare" p. 18).

29. Ibid.

30. Ibid., p. B1.

31. Ibid.

32. Ibid., p. B2.

33. Ibid.

34. Ibid., p. B3-4

35. Ibid., p. B4.

36. FM 27-10 *The Law of Land Warfare*, Department of the Army, Washington, DC, July 1956, p., 18, 19.

37. A point target is a single, defined point on the ground. An area target is spread out over a larger space. An example of a point target might be an enemy bunker. An area target could be several houses or an entire city block.

38. Ibid., p. B5.

39. William Westmoreland, *A Soldier Reports*, Doubleday and Company, Garden City, NY, 1976, p. 76.

40. MACV Directive , 95-14 Aviation: ARCLIGHT Operations, MACV Library, RG 472, Records of US Forces in SEA, NARA, 3 July 1968, p. 1.

41. Westmoreland, p. 340. The author can attest to at least one case of the lingering psychological effect the bombers had. While helping to interviewing witnesses during a Department of Defense investigation into MIAs in January 1998, an elderly witness in western Quang Tri Province near the base repeatedly told the team about how impressed he'd been by the ARCLIGHT strikes he and his comrades endured during the war. The village community building where the interview was conducted combined empty, US made 500-pound bombs and a bust of Ho Chi Minh as decorations for the stage.

42. Ibid., p. 2.

43. Ibid., pp. 1-2 of Annex C.

44. Rosson Letter.

45. Krepinevich, p. 272.

McQueney Slide Addendum:
MACV's Dilemma: The United States and the Conduct of the Ground War in Vietnam

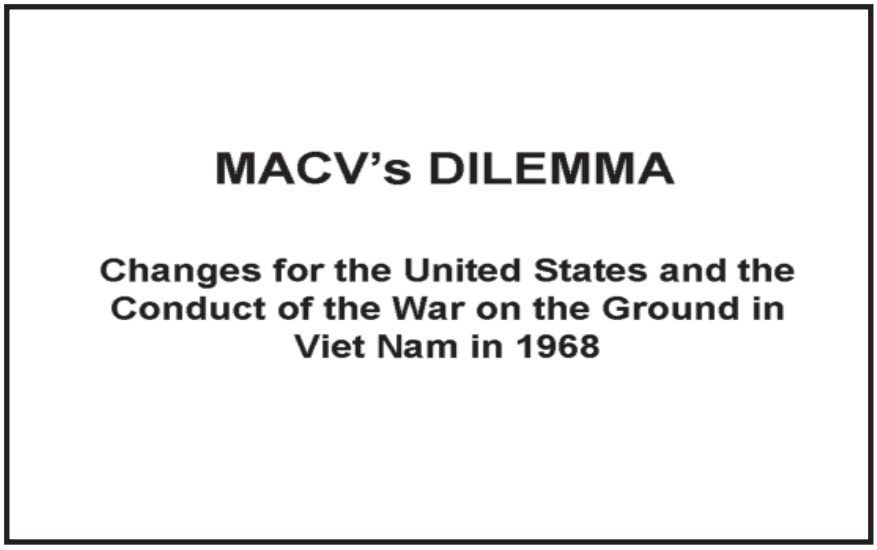


Figure 1

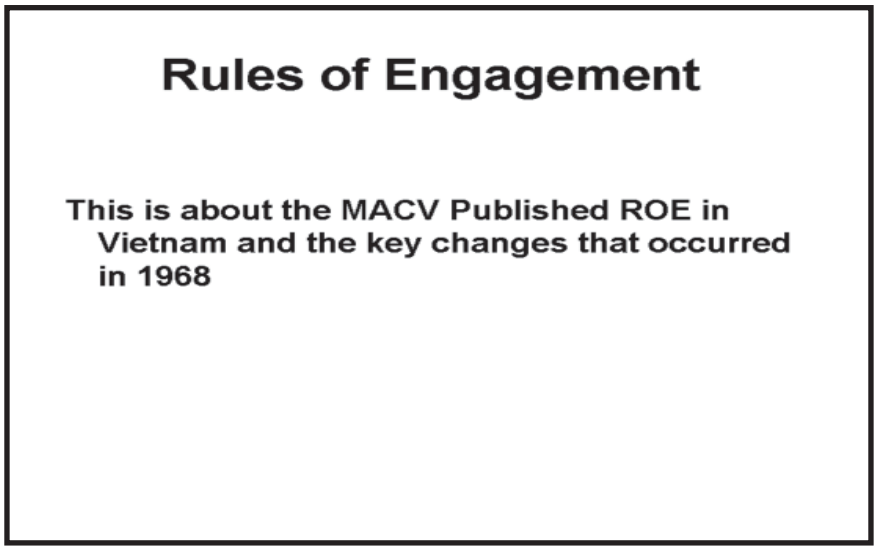
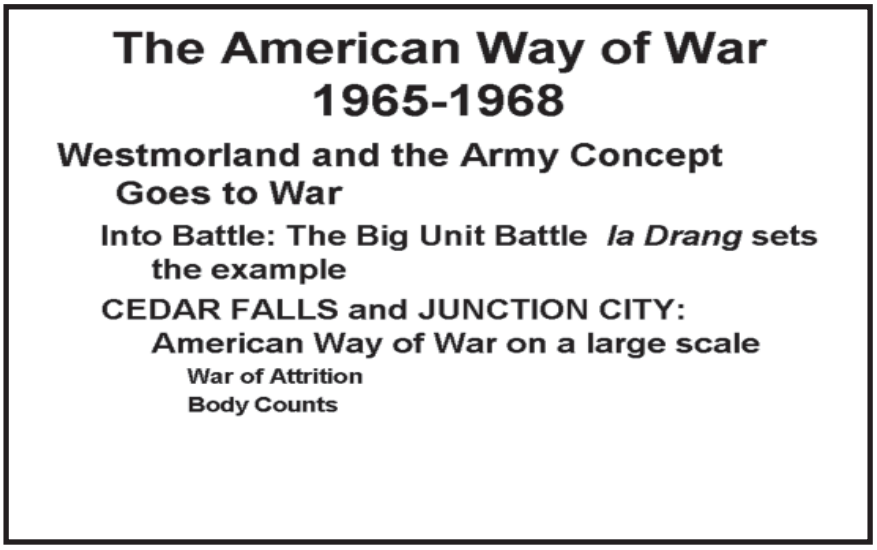


Figure 2



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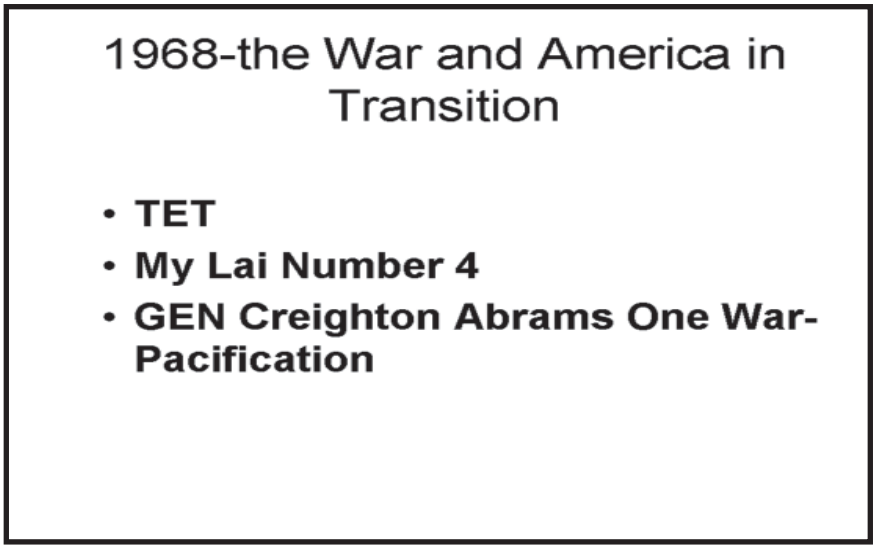
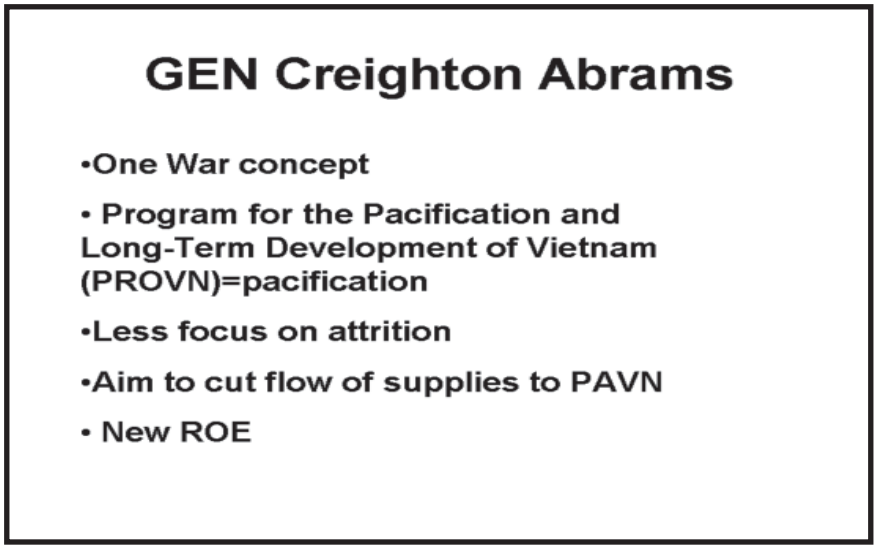


Figure 4



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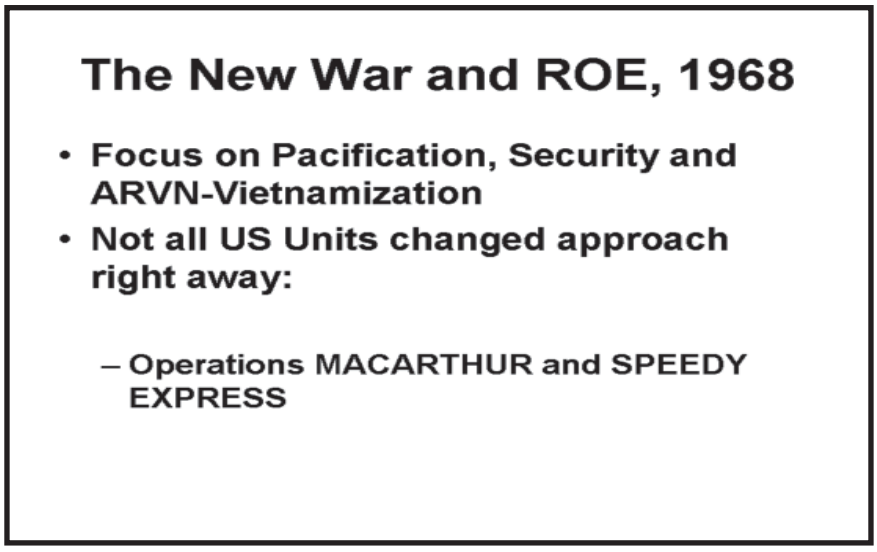


Figure 6

MACV ROE 1968

- 525-13 Combat Operations: Rules of Engagement for the Use of Artillery, Tanks, Mortars, Naval Gunfire, and Air and Armed Helicopter Support
  - Simplified and Clarified rules
  - More Restrictive in keeping with the One War Concept-increased GVN control
  - Greater emphasis on controlling firepower and limiting civilian casualties

Figure 7

525-13 Annex A: ROE Artillery, Mortar, Tank, Riverine and Naval Gunfire

- In SSZs- GVN approval required plus notification of the appropriate clearance authority before the fire mission
- Required permission for the attack from the MACV advisor to the ARVN units- an attempt by MACV to prevent United States forces from firing on South Vietnamese forces and civilians by mistake
- Firing on villages now required approval for the mission from a battalion or higher-level unit commander

Figure 8

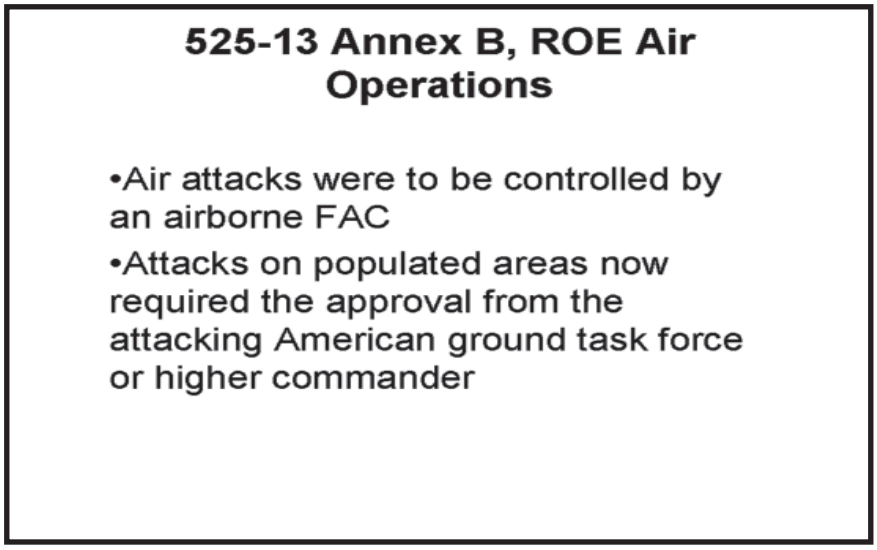


Figure 9

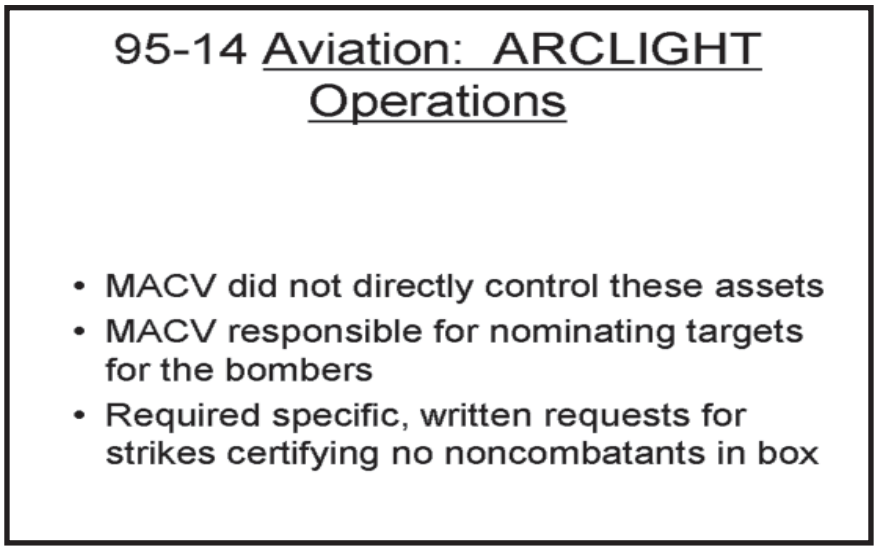


Figure 10

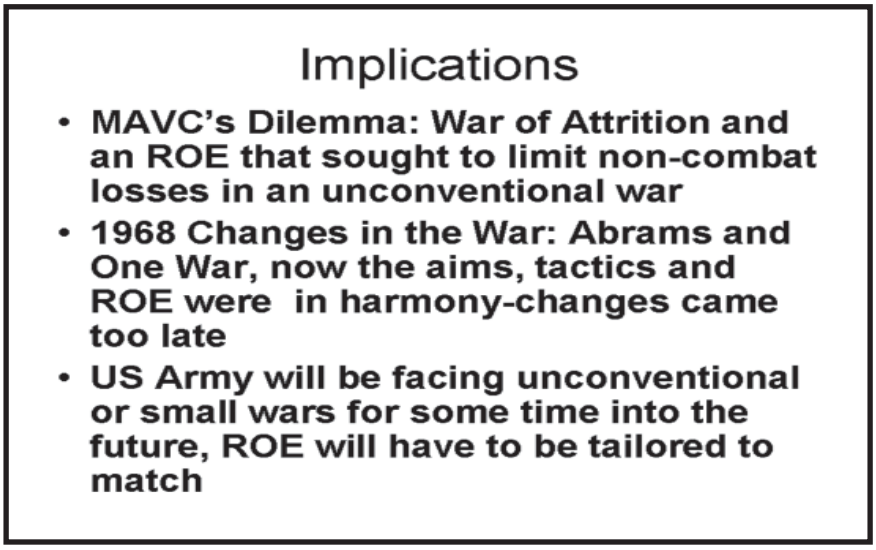

Implications
• MAVC's Dilemma: War of Attrition and an ROE that sought to limit non-combat losses in an unconventional war
• 1968 Changes in the War: Abrams and One War, now the aims, tactics and ROE were in harmony-changes came too late
• US Army will be facing unconventional or small wars for some time into the future, ROE will have to be tailored to match

Figure 11

Day 2, Session 1 Question and Answers

Moderated by
Dr. James H. Willbanks - Command and General Staff College

Dr. Willbanks
Before we turn to the questions and comments period, I'd like to make a few comments, if I could. I think these papers are pretty timely. You only have to listen to the news or pick up a newspaper—there are almost daily allusions to, or comparisons between Vietnam and Iraq, and some of them are more informed than others.

I think these two papers inform the ongoing debate about the utility of lessons learned from Vietnam and applying them to the current situation that we face on the ground in Iraq. Lieutenant Colonel Vlasak, I think, points out some very salient points involved with the writing—logistics and the requirements for large conventional forces faced with countering an insurgency. I think she aptly describes how the dependence on a sophisticated support infrastructure that we saw in Vietnam provided the Viet Cong, or more specifically, or more correctly, the PLAF and the PAVN, both targets of opportunity and sources of supply. The means of resupplying between these large bases and outlying units and smaller bases also provided a vulnerability to the enemy, just as we are seeing today.

She also discussed the development of the Vietnam forces and their logistic systems, pointing out the difficulties in building a long-term capability for self-sustainment in and among the indigenous forces. We saw the difficulties involved in that in Vietnam. We built for them a logistic system that they could not sustain after we left. I think that this should be kept in mind during the ongoing effort to organize, train, and equip the Iraqi security forces. So I think her paper provides some significant parallels that are worth considering when looking at the situation in Iraq today.

John's paper also addresses the lessons of Vietnam, obviously, but considers an even more contentious issue—that of rules of engagement. His paper maintains that the three events in 1968 influenced the change in the rules of engagement—the Tet Offensive, the My Lai incident, and appointment of Creighton Abrams as COMUS MACV in mid 1968.

I'll come back to Abrams and the Tet Offensive here in a moment. But first I would submit to you that the My Lai incident wasn't an ROE problem. The best ROE in the world probably wouldn't have done anything to remedy that particular situation, because it was a total breakdown in leadership and discipline. More

effective ROE would probably have made little difference—*because* of this total breakdown.

John concludes that the appointment of Abrams was far and away the most important factor in the change in the rules of engagement, and as one who participated in Abrams' "one war" concept as an infantry advisor with an armored infantry division in 1971 and '72, and also have spent some years here recently researching the Vietnamization period, over which General Abrams presided, I concur that Abrams made a major shift in the focus of the war and the operational concepts used to fight it. I also agree that the Tet Offensive brought about a change in the war. But I think it must be acknowledged—and this is a caution here—that General Abrams made the changes that he did in the ROE and the way that the overall approach to the war was to be fought—because he could.

He was dealing with a fundamentally different set of circumstances than General Westmoreland faced in 1965 to 1967. Westmoreland had to hold off the Viet Cong and the North Vietnamese, certainly after the fall of 1964, when the main force units began to move down the Ho Chi Minh Trail, in order to focus on pacification. It's pretty difficult to pacify a province if you can't hold off two or three PAVN regiments.

So I think that the change in strategy in 1968 and '69 was possibly largely because of the heavy casualties inflicted on the Viet Cong and the PAVN in the bitter fighting in not only the Tet Offensive—which extends, if you extend it out, into the fall of '68—but also in the subsequent battles, it extends up until mid 1969.

These losses permitted a change in focus, certainly set the preconditions then so that you could shift the focus, at least in some areas, in some provinces, to pacification, and of course a subsequent tightening of the rules of engagement, which I'm quite familiar with because it's the rules of engagement that we operated on.

There was a lot of discussion about what if this strategy had been tried in 1965 or 1966. In my mind, at least, it's doubtful that any of this would have worked, because you had—at that particular point—40,000 more Viet Cong and PAVN operating in the area of responsibility (AOR).

All of that being said, John's paper makes an extremely important point, I think, on the rules of engagement and how critical they are to the effort involved in winning the hearts and minds of the local population, while still providing security to your own forces—and therein, I think, lies the dilemma that he left us with.

Those comments being said, I'd like to open it to questions, comments from before, please. Yes, sir, in the back?

Audience Member
I am Rick Shrader. I have a comment, I guess an illustration of a couple of points that Colonel Vlasak made regarding the summer of 1968 and convoy operations and the enemy's use of our equipment. General Williamson, who commanded the 25th Infantry Division at that time, was notorious among us transporters for using the daily convoys up into Ku Chi, Loc Ninh, Tay Ninh, as bait. In August of 1968, the fish took the bait big time. There was an ambush to the daily Tay Ninh convoy, which General Williamson's combat forces, it took them 20 hours to rescue us—a 20-hour ambush. It was an example of this defending the LOC as using it as an offensive operation. Anyone who wants to try that technique, please be sure that you have sufficient combat forces to make it stick, once it happens, because it isn't pleasant for 20 hours in an ambush.

Something along on that same ambush, it was obvious, as we reviewed what had happened afterwards, that the North Vietnamese forces had targeted specific vehicles in the convoy. There was one tractor-trailer load of protective mass—they immediately went for that. There were several tractor loads of 50-caliber ammunition—they wanted that. And they pretty much left everything else alone or tried to blow it up or whatever. But it's very much a targeted attempt to get specific items that they knew were on the convoy. I did have one quibble, I think. You mentioned something there about the convoy commander in an aircraft. Those combat weenies would never let us anywhere near one of their airplanes.

In fact, the convoy commander—the transportation unit convoy commander—was not even permitted to have the frequencies and call signs for the artillery and supporting air. Those were given to a PFC or SP4 military policeman (MP) from, for example, the 25th Infantry Division, and he was the only one who had them; he would not let the lieutenant or captain, who was the convoy commander, have those. They were afraid that the transportation guys wouldn't know what to do with them. So of course, the first thing that happened in any ambush is the two MP jeeps at either end of the convoy were blown away by RPGs, and the subsequent consequence was, unless—well, what really happened is that we got smart and we would steal the call signs and so forth. But technically, you weren't supposed to have them, and it would have been all over. So this whole business of the convoy operations, I think, has a lot of relevance to what's going on today. I think someone needs to take a much closer look at convoy operations. The intensity of the IED kind of thing—a roadside bomb—of course was not quite the same in Vietnam, but you did have regiment-size ambushes. But I think someone could do well to make a real close study of that and see what practices worked and didn't work.

LTC Vlasak
Thank you, Dr. Shrader. I completely concur with everything you've said there. Thank you for giving me that corrective as to who actually had control there, which goes to show that I guess their retraining efforts, or efforts at improvement, were not as completed as they might have hoped. But I think that you're exactly right—this is an area that's extremely ripe for revisiting, because it has unbelievable relevance to today. So thank you.

Audience Member
It's another sort of a logistics convoy question. We could almost draw a parallel with convoy operations on the oceans in World War I and World War II, where after tremendous losses, they finally say, "Gee, maybe we better put our ships in a convoy, and protect them." The same with logistics convoy first, you know, in Vietnam, and then certainly, recently in Iraq. It's as if they started out thinking, "Well, nobody's going to hit these, so we'll just run them up and down the road," and only after tremendous losses do they realize, "Hey, maybe we better have gun trucks—that's an interesting idea; let's try that." It's almost as if their default position is, "Nobody's going to attack our logistics train, so we don't need to train our loggies to defend themselves; we don't need air cover; we don't need logistical thinking on how to protect these convoys"—until after the losses occur. Perhaps you could give me some idea of the mind-set of individuals that refuse to believe that logistics need to be protected until proven otherwise, as opposed to the other way around?

LTC Vlasak
You make several good points there, Dr. Seret. First, your reference to convoy operations on the high seas during World War II—again, primarily, the Battle of the Atlantic—I really appreciate that analogy, because I spent the last two years writing three lessons for the Intermediate Leadership Education (ILE) course here at CGSC on naval operations—one of them included the Battle of the Atlantic—and I'd like to point out to the students, or at least let them come to the conclusion themselves, that the dilemma faced to getting materiel to Europe, so there will be a Normandy and a D-Day, is very much the same one here—the medium is just what has changed; it is on water instead of on the hand. But in terms of the way you have to think about it and approach this problem is very, very similar—that there is no one technological solution that you can throw at this. You have to have creative people who look for synergies to come out of this. You can keep inventing things, whether they're hedgehogs or lea lights or different type of depth charges or—you know, Germans will come back with snorkels and whatever else; there's sort of this point-counterpoint arms race that goes on. But until you find creative ways to combine all the materiel you have at your command,

technology you have at your disposal, in surprising and new ways—I mean, I like to point out, there's a British naval commander who figures out that once you get the edacity of the airplanes, the little carriers, and puts it all together, and that if you do a certain type of maneuver around it, it's what you do with it that's the real point. So that's a lovely lesson, that it's not the medium, it's not the technology—it's how you think about the problem. On to your other points there, if you can refresh me on the second part there, Dr. Seret.

Audience Member
Well, specifically, why is it the mind-set that logistics don't need to be protected, perhaps as the default, going into the war position, and then only after tremendous losses do they seem to recognize that, "Oh, I think we have a problem here"? It's a problem that has occurred many times before.

LTC Vlasak
I think that goes back to the linear warfare mind-set, that there's these fronts—it's a legacy back to the World War II sort of pattern of war, that when you have these fronts that move through, this way of thinking, that, "We've cleared everything that's come before us. How could there possibly be anything left behind or mass that has rolled through?" I think that's part of it—it's a very seductive way of thinking—and we don't realize that when you get to this type of warfare, it's very, very different. There are opportunities, especially when the problems are looking for logistic sympathy among the people.

LTC Vlasak
Well linear war is much more technology dependent and that seems to be our comfort zone—we like our gadgets and widgets and if we can find a technological solution that seems to be our default preference.

Dr. Willbanks
I think Richard makes a pretty valid point. If you want to know what the Army puts emphasis on, go back and take a look at curriculum here for instance. If you go up on the third floor and go into the archives, after 1973 counterinsurgency goes away, and it goes away very rapidly, and it becomes almost a non-word. Certainly by the time some of the folks in this room of my particular vintage come through, counterinsurgency is not even addressed.

Audience Member
Colonel Jensen here, and as both a transporter and a logistician I am very much aware of what's going on with the main supply routes in Iraq and Kuwait right now as a movement control battalion. We have two things that come together.

First of all the reinvention of the gun-truck, if you will, came from a sergeant with a National Guard background who had been in Vietnam building an armored pillbox that was removable from the back of a HET. And very quickly the transporters armed there with what they call "hillbilly armor", so the soldier in the field would adapt very quickly much as the hedgerow cutters were by a sergeant putting steel teeth in front of a tank. But the other part of that are rules of engagement. Most of the problems we have right now in Iraq deal with a very vague rule of engagement. Your comment was that it's a different war and requires different rules of engagement could have been taken off of the political podiums I think after 9/11. We see this not only in the handling of prisoners in Guantanamo and others, but also rules of engagement in the cities. The most effective weapon on these convoy protections is the .50-caliber machine gun because they will shoot through walls. And the insurgents when they hit a convoy, and get rapid fire back at them, tend to leave those convoys alone. They read shoulder patches very quickly and they know which ones will respond with overwhelming force and which ones are tentative about it. The bad part of that, or in the background, is the soldier is continually looking over his shoulder saying "is this allowed?" We all see the court-martials and all the publicity coming out of it, and that's a real dilemma for us when we don't have well defined rules of engagement and don't want to go off on a tangent. It's kind of like the commander's intent—if it's not understood by the key players, then you get into a real problem with the soldier on the battlefield and we're seeing that. All you have to do is read the headlines and you see the courts martial, the rules of engagement, and the commander is really put in a bind on what protects my soldiers and what's going to get me court-martialed, and that seems to be the problem we have.

Mr. McQueney
A further study I did, I brought it down a few layers. This was MACV, I guess, roughly equivalent to General Casey's level. It's not as though these were the only things out there. You know, this thing sat confidential at the National Archives until 1998, or whenever I went in and said, "I want this declassified." So this is confidential, so the soldiers in the field didn't have this.

In another part of my study, I have a couple of the ROE cards that were actually issued, and they are kind of soldier-friendly—one of them is "nine simple rules." Now, I'm not an Iraq veteran; I don't know if they had a similar soldier-friendly kind of ROE distillation card in Iraq—that people understood, and were briefed on and got trained on. I know—

Audience Member
There's a card, you carry it with you at all times. When you first came in, you got it.

Mr. McQueney
In my talk with some of the Vietnam veterans, you get a wide range—either some of them told me they never knew there were any ROEs, and they would have ignored them anyhow; other guys said they were a huge handicap to them; and other guys admitted, "Yes, this was something we needed to keep"—you know, General Lawson said that, "This was an important part of the war, and our soldiers needed to understand this." So don't presume that just the directive is the only that was out there. It was distilled down.

Dr. Willbanks
Well, I think you have to also look at the situation. ROE's different in the Central Highlands in 1969 than it is in Bin Dinh Province in 1972. So it kind of depends on what the situation is. I've been in provinces where you could wander around and not see another human for days. I've also been in built-up areas where you basically had to keep a close reign on everybody, because they're a finger away from rock-and-roll, and all the ROE cards in the world don't make any difference if you haven't inculcated that in the enemy.

Audience Member
I have a question for John. The ROE was imposed, in your view, to limit some of the collateral damage and some of the destruction that we were imposing on South Vietnam. Has your research turned up anything on how that was perceived by those who were victims, and how it was perceived, maybe, by our enemies?

Mr. McQueney
Sir, not yet. But if I turn this into further study, I have some contacts in the POW/MIA office who have contacts in the Social Republic of Vietnam. We often ignore that side of it, and I don't know. I would say, given how they approach most of the things, it could become a weapon for them to use against us, and probably was, and maybe some of the guys here who were there would know that they in fact would use My Lai, or incidents like that, as a political weapon. Remember they always had these levels of warfare that we tend to forget—warfare on...more than just warfare. So I presume that it could have been used as a tool against us.

Audience Member
Of course, presumably we were trying to influence the civilian population as well, and one would hope that they would realize, "Oh, gee, the Americans are

being so observant and so careful, and we really love them even more." You would hope there would be a positive benefit, even if the enemy tried to turn it against us. But I don't know.

Dr. Willbanks
Yes, sir, please.

Audience Member
I do have a question for Dr. McQueney. In your research, did you use the—I think they're called the Abrams tapes? Did you have access to those?

Mr. McQueney
No. It was enough just getting the actual directives declassified and getting them in my hands. It would probably be interesting to see a lot more of what he thought about. I used General Lawson to get at that, because he was his deputy, and the different approach that Abrams would take it. But I'd be willing to bet, it's just for me, really interesting that this guy was a tanker veteran—you know, a hero from Bastone, unless you're a 101st guy; then he's not the great hero. [Laughter] But you just don't think of guys like that flipping their brain around the problem so quickly, and so differently. That's probably at Knox, too, isn't it, some of the tapes?

Audience Member
I think they're at the—

Dr. Willbanks
The CMH.

Audience Member
They're not at the US Military History Institute. Again, the reason I asked is I attended a lecture by Dr. Sorley, and Dr. Sorley had written the first book on Abrams, not knowing how much had been embargoed; the Army had hidden numerous boxes—rooms full—of his papers. So that's why Sorley had written a second book when that embargo was lifted by the Army—he wrote, *A Better War*. I was reading something over the weekend where there's another third wave of stuff that the Army has allowed Sorley and others access to, and I think it's been very recent—this summer, as a matter of fact. Again, they keep holding it back, for reasons—I think they were waiting for more deaths of the major players, like General Westmoreland.

Mr. McQueney
It's the family.

Audience Member
Okay.

Dr. Willbanks
Go ahead, sir, please.

Audience Member
Yeah, I wanted to ask, for Colonel Vlasak and Mr. McQueney, it's virtually impossible to stop the logistics of an insurgent force, but you can certainly increase its costs to do so. What measures proved effective, both strategically or operationally, in driving up their costs?

LTC Vlasak
Well, I think the very—this practice of defending your locks robustly certainly made it more costly. But then, as we sort of diverged, or linked it properly to—it's a question of your rules of engagement, and it just kind of goes back to one of the earlier points or questions here, is rules of engagement, as defined for CSS units, combat service support units, and for combat units, we're supposed to sort of operate off the same page. But in terms of the situations that each type of units put into on a daily basis, sometimes I think that's where you start to see some of the tension, and I'll speak from my own sort of personal experiences taking convoys out in Somalia, just between log bases. We had a rules of engagement card, we had very defined things, when and where you were able to do what. Fortunately, I never had to actually put any of that into applied practice with lead down-range, but I remember thinking quite acutely about, well, how—you know, our situation's a little bit different. This works for guys who are out on cordon and search, or guys who are out deliberately hunting for bad guys. But when you're passing through town, trying to get the goods between bases, you can often be faced with a lot more ambiguous situations, and I'm not sure ROE, as we try to wrestle with it, often gets at all the things the logistician needs. I think that's just definitely an area worthy of more research and consideration, so I leave it at that.

Audience Member
I was specifically trying to get at what methods we use to drive up the insurgents' costs of logistically supporting themselves.

LTC Vlasak
I think, as I said, defending these convoys with lots of firepower, but as I said, that gets you into this difficult situation of when you're passing through towns and villages, because so much of the logistic effort has to co-exist with the people who actually live there. You run into a lot of more, I would say nebulous situations that we need to figure out how to handle better.

Dr. Willbanks
Well, I think, basically, you're going to find the LOC's in Vietnam, the LOC's came through two countries, and except for the secret bombings, we only went into once, and the ARVN went into once in 1971. So in that particular case, you never cut off the logistics trail to the PLAF and the PAVN in the south. So it's a self-generating organism, no matter how many casualties you inflict upon them. Jim, you get the last question; we're running out of time here.

Audience Member
I'll try to be very brief. I was a combat infantryman in the 25th Division from March '67 to March '68. I don't recall any ROE card, although it may have been issued to me. But the ROE that was imposed on my unit was imposed through discipline of a caring leadership. If there was a problem with ROE where I operated, which included the Michelin Rubber Plantation, it was that we could not even fire indirect fire in defense of our unit inside the rubber plantation without somebody's permission, and this was at the cost of American lives, and there's more details to that. But it actually cost lives in my unit, that we couldn't fire our own 81mm mortars inside the rubber plantation in July 1967.

Dr. Willbanks
In that particular area where Jim worked, I'm very familiar with, there is nothing but rubber plantations, which made things increasingly difficult for those on the ground.

We have reached the end of our allotted time here. Thank you, folks. [Applause]

Use of Private Military Corporations To Supplement Traditional American Ground Forces

Thomas E. Hennefer, PhD.

> *"The mercenaries and auxiliaries are useless and dangerous, and if anyone supports his state by the arms of mercenaries, he will never stand firm or sure, as they are disunited, ambitious, without discipline, faithless, bold amongst friends, cowardly amongst enemies, they have no fear of God, and keep no faith with men."*
>
> — Machiavelli, The Prince

Introduction

As the Global War on Terrorism (GWOT) progresses, the operational tempo of "first-strike" American ground forces will increase. There is an opportunity to supplement existing American forces with Professional Military Corporations (PMCs) to act as "force multipliers", thus allowing traditional ground-forces to be deployed in conflicts with a higher national priority.

PMC's represent the newest addition to the modern battlefield, and their role in contemporary warfare is becoming increasingly significant. Not since the eighteenth century has there been such reliance on private soldiers to accomplish tasks directly affecting the tactical and strategic success of military engagement. With the continued growth and increasing activity of the privatized military industry, the start of the twenty-first century is witnessing the gradual breakdown of the Weberian monopoly over the forms of violence. PMC's may well portend the new business face of war.[1]

The New Age of Mercenaries

Since time in memorial governments, empires, and armies have sought opportunities to expand their military capability so core resources could be brought into action. From William the Conquerer to National Socialists Germany, to Desert Storm, the mercenary soldier or "free lancer" has been enlisted when national interests require direct participation, but world opinion disapproves.

As the world becomes more intertwined, political and social acceptance of using PMC's or "mercenaries" in combating global terrorism will continue to challenge traditional concepts of the citizen soldier. This new intervention may yet redefine what Carl Von Clausewitz termed "politics by other means".[2]

The legacy of mercenaries is as old as military conflict itself. A historical review illustrates that many modern nations (i.e., Italy, France, Germany, Spain, and England) can directly trace their establishment to the implementation of mercenaries in an effort to consolidate power.

Historically, mercenaries in Europe were used as a way to expand an existing army either as an offensive or defensive force. Their justification was that since national identity was not a populist ideal until the 1700s, monarchs had limited options if they wished to expand or defend existing territories. Every ancient empire from the Hittites forward, including Persia, China, Greece, and Rome, used mercenaries. However, it was in the warring mini-states of Renaissance Italy that mercenaries came into their own. During this period (1420-1600) the Condottieri served whoever would pay and did so without stigma. "War was a barbaric business. The citizens of rich and flourishing states were not about to waste their time or their lives in pursuit of it."[3]

The early European use of organized mercenaries was in the form of private bodies in the 14th century known variously as Free Companies, or Great Companies. These organizations ultimately developed in Italy as Condottieri (literally means military contractor), who offered their services to the highest bidder. The Condottieri system maintained fairly permanent companies of armed military specialists that were hired out for set periods to various Italian states. By the 18th century, this was a fairly common practice, as the British demonstrated with their use of Hessians to fight in the American Revolution.[4]

In a modern context, using mercenaries as force multipliers can be compared to the business equivalent of temporary employees or "temps".

In business when employers need additional workforce they "outsource" immediate needs to organizations staffed to provide such services. When the "temp-force" is no longer needed, auxiliaries are released and move on to the next assignment.

The business advantage is that companies can "offload" the long-term expense of supplying and maintaining a bloated workforce while still maintaining specific economic advantages. Temps can be deployed or assigned less desirable projects allowing the organization to complete the assignment with limited exposure or risk.

In Saudi Arabia, for example, the regime's military relies almost completely on a multiplicity of firms to provide a variety of services-from operating its air defense system to training and advising its land, sea, and air forces.[5] Other advanced powers are also setting out to privatize key military services. Great Britain, for instance recently contracted out its aircraft support units, tank transport

units, and aerial refueling fleet—all which played a vital role in the 1999 Kosovo campaign.[6]

The parallel to military service outsourcing, is already manifest in the domestic security market, where in states as diverse as Britain, Germany, the Philippines, Russia, and the United States, the number of private security forces and the size of their budgets greatly exceed those of public law-enforcement agencies.[7]

The US military has also employed PMC's to perform a wide range of other services—from military instruction in more than 200 ROTC programs to operation of computer and communications systems at NORAD's Cheyenne Mountain.[8]

Today's PMC's represent the evolution of private actors in warfare. The critical analytic factor is their modern corporate business form. PMC's are hierarchically organized into incorporated and registered businesses that trade and compete openly on the international market, link to outside financial holdings, recruit more proficiently than their predecessors, and provide a wider range of military services to a greater variety and number of clients. Incorporation not only distinguishes PMC's from traditional mercenaries and other past private military ventures, but it also offers certain advantages in both efficiency and effectiveness. Incorporation also means that PMC's are business–profit focused instead of individual–profit focused.[9] Unlike mercenaries, privatized military firms compete on the open global market. PMC's are considered legal entities that are contractually bound to their client…any client.[10]

American Mercenaries

Traditionally, most Americans would consider the use of mercenaries an affront to the values of fair play or with the traditions of the American military, but America has also hired and/or produced its own share of privateers.

General Friedrich Von Steuben: Born in Magdeburg, Prussia, on September 17, 1730, General Friedrich Von Steuben is credited with being the father of the modern American army based primarily on his drillmaster talents at Valley Forge. At that time, with few notable exceptions, the Continental Army was lead by non-professional soldiers with a majority of the officer corps culled from the educated classes or landed gentry. What Von Steuben brought to the Continental Army was the ability to take a group of largely volunteers and give them the skills necessary to stand toe-to-toe with the British, an army considered by most to be the best in the world.

In the tradition of the mercenary, General Von Steuben who in reality was a captain obtained his military experience in the Seven Years' War as aid-de-camp

to King Frederick II, and somewhere along the way acquired the title of baron. Through political connections with Benjamin Franklin, Von Steuben managed a commission in the Continental Army. Realizing that a lieutenant general commanded more respect than an ordinary captain, Von Steuben arrived in Portsmouth, N.H. on December 1, 1777 ready to serve in his new posting. Under the strong suggestion of General George Washington, Von Steuben was appointed inspector general and achieved the rank of major general by 1778. After serving in several campaigns, Von Steuben was awarded citizenship, a 16,000-acre farm in upstate New York and an annual pension of $2,500. General Friedrich Von Steuben died in Steubenville, N.Y. on November 28, 1794.

Captain Miles Walter Keogh: Born on March 25, 1840 in Southern Ireland, Miles Keogh was born into a large, affluent, intensely Catholic family of thirteen children. Born to fight, Keogh was a member of the Wild Geese, an organization of professional soldiers of fortune whose only restriction was to never fight under the British Union Jack.

In 1861, Keogh went to Italy to fight in the papal army and was later awarded two medals for heroism: the "Pro Petri Sede," and the "Ordine di San Gregorio" of Saint Peter and Gregory. After the Papal defeat, and with no more wars to fight in Europe, Keogh was invited by Secretary of State William Seward and the Archbishop of New York John Hughes to join the Union Army and was awarded the rank of captain ironically on April 1, 1862. Keogh was immediately posted as a staff officer to brigadier general James Shields who confronted Stonewall Jackson later that year in the Shenandoah Valley.

Described by George B. McClellan as "a most gentlemanlike man, of soldierly appearance" Keogh also served on Buford's staff at Fredericksburg, Chancellorsville, Brandy Station, Gettysburg, and promoted to full major on April 7, 1864.

At the conclusion of the Civil War as a brevetted lieutenant colonel, Keogh obtained a commission in the regular army as a captain taking command of I company of the 7th Cavalry at Ft. Riley, Kansas.

Although not a close friend of George Armstrong Custer, Keogh is probably one of the most famous members of the 7th Cavalry to die at the Little Big Horn. His final act seems to be one of personal bravery since his body was found encircled by his men, and oddly enough, the only body not mutilated. This act is historically interpreted as a sign of respect by the Cheyenne and Sioux for a man that all agreed was dashing and heroic.

General Clair Lee Chennault and the A.V.G.: Recognized as the father of the modern Chinese air force, Clair Lee Chennault came to China in 1937 as a retired captain in the United States Army Air Corps.

Initially, Chennault came at the request of the Chinese government on a limited mission to observe and suggest changes on how best to combat the overwhelming Japanese threat. Chennault with unofficial support of President Roosevelt and political allies, equipped the assemblage later known as the American Volunteer Group (AVG) with planes, material and manpower and established a PMC style combat group destined to operate out of makeshift airfields throughout China.

Members of the "Flying Tigers" were handsomely compensated. On average (and these are 1940 dollars), the average American Volunteer Group (AVG) pilot received a salary of between $250 and $750 dollars a month, paid vacation leave, medical expenses, $30 per month in miscellaneous meal expenses, and initially a $500 bonus for every enemy plane destroyed in the air and later those destroyed on the ground. The AVG was later absorbed into the Army Air Corps in 1942.

When examining this fighting force, it is important to note that at the height of its power, A.V.G. squadrons rarely exceeded 30 serviceable aircraft. Japanese forces were estimated to be in excess of 400 to 500 aircraft, which placed the odds in any single conflict somewhere between four to one, and fourteen to one.

The New Privateers

At no time in modern history has the availability of freelance military force, equipment and "know-how" been so easily accessible to the average country, organization, or individual. In fact, billionaires such as Bill Gates, Steve Jobs and Warren Buffet could realistically hire their own private army, giving new meaning to the business term "hostile takeover".

The elements that gave rise to this new market can be traced to three primary global factors: 1) the end of the Cold War, 2) the vacuum created when mother states such as the Soviet Union could no longer provide unlimited resources to satellite nations, and 3) the reduction of global military forces by some 6 million men in the 1990's.

Massive disruptions in the supply and demand of capable military forces after the end of the Cold War provided the immediate catalyst for the rise of the privatized military industry.

With the end of superpower pressure, a raft of new security threats began to appear after 1989, many involving emerging ethnic or internal conflicts. Likewise, non-state actors with the ability to challenge and potentially disrupt world society began to increase in number, power, and stature. Among these were local warlords, terrorists' networks, international criminals, and drug cartels. These groups reinforce the climate of insecurity in which PMC's thrive, creating new demands for such business.[11] In essence, with enough money anyone can equip

a powerful military force. With a willingness to use crime, nearly anyone can generate enough money.[12]

The cost of entry into the traditional military industrial complex is staggeringly high, and until recently has excluded all but a few from participating in the activities of this once elite club. The entry barriers for PMC's, on the other hand is relatively low since the amount of financial and intellectual capital is relatively inexpensive having been pre-paid by super-power governments in the form of military training and education at such renowned institutions as Sandhurst, West Point and Annapolis. This intellectual capital is readily available from an open labor market supplied by highly skilled operators whose knowledge, experience, and practical application leave many with limited options in a traditional job market.

As for compensation, a high number of soldiers from declining nation states can expect to receive from two to ten times the normal pay rate they collected when employed by more legitimate governments where annual income in excess of $95,000 is not uncommon. As for military hardware, with the decline of the Soviet Union, an amazing amount of surplus equipment can be procured not to mention excess supplies provided by employer-states who purchase armaments from legitimate sources. Current estimates place annual PMC industry revenues in excess of $200 billion and climbing.

Predominant among global PMC's are two companies that typify what has been described as Type 1 and Type 2 providers: Executive Outcomes (EO), and Military Professional Resources, Inc. (MPRI).

Executive Outcomes: Founded in 1989 by former members of South Africa's' Defense Forces who were originally assigned the implementation and enforcement of apartheid legislation, EO promises it clients: professional and confidential military advisory services, land, sea, and air training, strategic advice and "apolitical service based on confidentiality, professionalism, and dedication".

EO came to international attention in the 1993 Angolan Civil War where they assisted the FAA government forces (The Force Armada Angolanas) in its fight against UNITA (National Union for the Total Independence of Angola). Using a contingent force of 50 paramilitary advisors, EO supplemented a 600 man FAA force and recaptured a strategic old refinery and storage facility.

The next contract assigned was in September 1993 where EO was paid $40 million to protect one of the countries leading diamond processing centers. EO were classified as "military advisors", but authorized to make preemptive strikes against known threats if in their opinion they represented a clear and present danger to EO contractual objectives.

In March 1995, EO was contracted to assist the Kono mines in Sierra Leone, and succeeded in achieving its objectives in only eleven days implementing gunship, fast-attack Ranger-type tactics, and superior electronic communication networks. It is unclear how EO came into possession of this advanced hardware, but it is surmised that the equipment was supplied by the contractor and related government agencies that purchased the equipment on the open market. EO was paid in diamond contracts through their subsidiary company Branch Energy.

Overall, EO has operated in multiple African countries including Kenya, Angola, and Uganda. EO was disbanded in 1999 at the behest of the South African government who banned its citizens from embarking on mercenary activities. It is interesting to note that EO was responsible in one West African country for reclaiming 90% of territories lost to insurgents, but was later forced by the UN to exit the country on the condition that UN Peacekeepers would complete the operation.

It took EO less than six months to complete its objective at a cost of $400 million. It took the UN less than one year to lose all the territory gained by EO to the former insurgents at a cost of $1 billion dollars.

Military Professional Resources, Inc. (MPRI): Unlike Executive Outcomes that supplies on the ground hostile contact services, MPRI is more of a Type 2 military consulting firm that provides general-staff-like consultation. Where EO is a more "in-you-face" operation, MPRI is more interested in the overall strategic operation and implementation of the contract, and at present only advises clients on the best military solutions and possible options.

Established in 1986, MPRI has on call over 360 fulltime "core" employees, in excess of 2,000 supplemental contractors, and can stay in the field from a few weeks to several months. Consisting mostly of former military professionals ranging from noncommissioned officiers to four-star generals, MPRI can provide large scale, long-durational support anywhere in the world.

Located in Alexandria Virginia, MPRI income for 1996 was estimated to exceed $24 million. MPRI describes their business model as "focusing on military matters, to include training, equipping, force design and management, professional development, concepts and doctrine, organizational and operational requirements, simulation and war-gaming operations, humanitarian assistance, quick reaction military contractual support, and democracy transition assistance programs for the military forces of emerging republics."

Like Executive Outcomes, MPRI has been involved in a myriad of contracts including a 1995 United States contract to deploy 45 operators to monitor the Bosnian border against smugglers, and a 1994 Department of Defense contract to

retrain the entire command structure of the Croatian National Army. This type of activity has not gone unnoticed by the international community where British and French officials accused MPRI of assisting in the planning of the Croatian invasion and the targeting of strategic communication centers in advance of invasion activities.

Help and Hindrance

Overall, PMC's operate under the same conditions found in many modern business industries or markets. Since no single business can be all things to all customers, or supply all the required resources a client might need, governments use the power of outsourcing to match the skills and abilities of one PMC to supplement those of another. If a contractor needs in-your-face force multipliers, they could offer Executive Outcomes or Sandhurst one part of the contract, if they needed command staff functionality, they could offer this part of the contract to MPRI, and if transnational logistics were required, they could seek the help of transnational companies like Halliburton.

Using tip-of-the-spear analogy, it is important to consider that not all PMC's look, function, or act within the same sphere of participation.

Type 1: Military provider firms focusing on the tactical environment. They offer services at the forefront of the battle space, engaging in actual fighting or direct command and control of field units, or both. In many cases, they are utilized as "force multipliers, "with their employees distributed across a client's force to provide leadership and experience (i.e., Executive Outcomes and Sandline are classic examples of military provider firms as well as Von Steuben, Keogh, and Chennault as involved participants).

Type 2: Military consulting firms providing advisory and training services. They also offer strategic, operational, and organizational analysis that is often integral to the function or restructuring of armed forces. Their ability to bring to bear a greater amount of experience and expertise than almost any standing force can delegate on its own represents the primary advantage of military consulting firms over in-house operations (i.e., MPRI can call on the skills of more than 12,000 former military officers, including four-star generals).

Type 3: Military support firms provide rear echelon and supplementary services. Although they do not participate in the planning or execution of direct hostilities, they do fill functional needs that fall within the military sphere including logistics, technical support, and transportation—that are critical to combat operations. The most common clients of type 3 firms are those engaged in immediate, but long-term duration, interventions (i.e., standing forces and organizations requiring a surge capacity).[13]

PMC Website Links

Since the PMC industry is collection of hundreds if not thousands of companies ranging from large, well financed multi-nationals to a few ex-patriots in a Humvee, the following is a collection of some of the more known companies and their services. To maintain an accurate and unbiased depiction of each company, the information and accompanied URL (Universal Resource Locator) was taken directly from each companies website mission statement or description of services.

AirScan Inc. Airborne Surveillance and Security Operations
http://www.airscan.com/

A private military company committed to providing client the best air, ground, and maritime surveillance, security and aviation possible. AirScan strives for professional, timely results in response to clients' worldwide airborne surveillance and aviation requirements.

AMA Associated Limited
http://www.ama-assoc.co.uk/

UK based AMA Associates Ltd provides training and consultancy in the following: Risk and Crisis Management; Fraud Investigation; Surveillance; Technical Counter-Surveillance; Security Management; Counter Terrorist and Hostage Release; Maritime Security; Aviation Security and Air Cargo Security at all levels; Close Protection and Executive Management.

ArmorGroup
http://www.armorgroup.com/

Private military company with practices in: Security Planning and Management, Training, Mine Action, Response Center, Kidnap and Ransom, Humanitarian Support, Information Business Intelligence and Fraud, and Intellectual Property Asset Protection.

Combat Support Associates
http://www.csakuwait.com/

The CSA partners currently have projects at a dozen OCONUS locations where they provide technical training, base operating support, supply services, logistics and infrastructure support, transportation, and environmental support. The three divisions include:

AGS: An ISO 9002 compliant international services company with over 65 years of performance history in support of DOD, US Federal agencies, foreign governments, and commercial clients. AGS specializes in facilities operations

and maintenance (O&M), technical services, logistics, security, and environmental support services.

Space Mark, Inc.: A professional services company with 15 years of experience in Department of Defense logistics systems, telecommunications, multimedia training, airfield operations, facilities maintenance, and environmental services.

Research Analysis and Maintenance, Inc.: 20 years of experience providing technical services in support of testing and training activities of the US Army. A combined global workforce of 7,000 employees and revenues exceeding $1 billion.

Control Risks Group
http://www.crg.com/html/index.php

Control Risks Group is the leading, specialist, and international business risk consultancy. Founded in 1975, Control Risks has since worked with more than 5,300 clients (including 86 of the Fortune 100 companies) in over 130 countries. Control Risks Groups aim to enable our clients to take risks with greater certainty and precision and to solve problems that fall outside the scope of mainstream management resources. Control Risks offers a full range of value-added services to companies, governments and private clients world-wide, including: politcal and security risk analysis, confidential investigations, pre-employment screening, security consultancy, crisis management and response, information security and investigations.

CSC
http://www.csc.com/industries/government/

CSC entered the private military company market by purchasing DynCorp. CSC offers government clients a telecommunications legacy that spans more than 40 years in both the commercial and government sectors. As a result, we offer integrated voice and data network solutions that other systems integrators and telecommunication companies cannot easily deliver to government clients. By leveraging the expertise of more than 5,000 telecommunications specialists, we bring unusual depth of experience and expertise as we offer: vendor-neutral telecom solutions, wireless solutions, a full range of network engineering and integration capabilities, and significant number active security clearances among our engineering staff.

Eagle Aviation
http://www.eagle-aviation.com/

Eagle Aviation is a full service Fixed Base Operator centrally located on the eastern seaboard, providing convenient, quality service to the general aviation industry. Eagle Aviation's one-stop location is ideal for all of your business and personal aviation needs. Occupying more than 36 acres at the Columbia Metropolitan Airport (CAE Columbia, SC), Eagle Aviation has built an international reputation for excellence as a full service facility.

Global Risk International
http://www.globalrisk.uk.com/

Incorporation in 1999 and with an ever-increasing threat to international security and industrial espionage, Global Risk International (GRI) takes a more bespoke approach to the security industry, providing a comprehensive, tailor-made service without compromising the integrity, professionalism and confidentiality that you have come to expect from Global Risk. GRI is the largest British private military company. GRI provides services in crisis management, kidnap and extortion management, fraud and insurance investigation, and counter-surveillance. GRI is headed up by a management team recruited from the upper echelons of the security industry, ranging from ex-special forces instructors to senior police officers.

Global Marine Security Systems Company
http://www.hartsecurity.com/

GMSSCO provides a comprehensive marine risk management program deploying finance, insurance, security and industry expertise to ensure a coordinated response to all security risks, with a focus on terrorism, political instability and criminal activity.

Halliburton
http://www.halliburton.com/

Halliburton is a private military company, which specializes in energy and infrastructure. Many people still know Halliburton by their old name, Kellogg, Brown & Root.

International Charter Incorporated of Oregon
http://www.icioregon.com/

International charter company that acts as a private military company in peacekeeping support and relief services. Past work includes Liberia, Haiti, Sierra Leone, Nigeria and Sudan. ICI has nearly a decade of extensive aviation and logistics experience on five continents, frequently under austere and difficult con-

ditions. ICI specializes in: relief services, peacekeeping support, project management, heavy lift, and VIP transport.

Janusian Security Risk Management
http://www.janusian.com/

Formed as a subsidiary of The Risk Advisory Group. The Risk Advisory Group's established reputation as a leading supplier of risk management services to include a range of security resources for the defense of personnel and assets. Our core concept is to offer a multi-disciplinary specialist approach to security management, utilizing the most qualified experts in the field. Our specialists have built their reputations upon challenging the orthodoxy, drawing upon their collective experience while approaching each task without preconceptions.

Military Professional Resources, Inc.
http://www.mpri.com/

The world's greatest corporate military expertise—capitalizing on the experience and skills of America's seasoned professionals. Integrity, ethics, professionalism, quality, and cost competitiveness are our hallmarks—a claim borne out by past performance. One of the oldest private military companies in continuous existence.

Northbridge Services Group Ltd.
http://www.northbridgeservices.com/

Private Military Company offering strategic advice, intelligence support, humanitarian disaster relief, counter-terrorism, support for law and order, and close protection teams. The Company's personnel consist of highly decorated individuals who have, in aggregate, more than 200 years of operational service—predominantly in Special Forces—therefore guarantying a truly international blend of experience, pedigree and specialty.

Sandline International
http://www.sandline.com/site/index.html

Sandline is a Private Military Company (PMC) focusing on conflict resolution. The company works worldwide, and is resourced by professionals with many years of operational experience at senior rank within first world armies. The business was established in the early 1990s to fill a vacuum in the post cold war era. The purpose is to offer governments and other legitimate organizations specialist military expertise at a time when western national desire to provide active support to friendly governments, and to support them in conflict resolution, has materially decreased, as has their capability to do so. Sandline is a privately

owned and independent business. It is incorporated in the Bahamas and maintains representative offices in London, England and Washington, DC in the US.

Securicor Hong Kong
http://www.securicor.com/hk.htm

Securicor Hong Kong is the Asia regions' longest-established security company, commencing operations in 1963. Since then the business has expanded into eight other territories and is one of the most familiar and respected names in security. Securicor Hong Kong is part of the Securicor Asia group, which is wholly owned by Securicor plc, a leading cash management, security and justice services company based in the United Kingdom. Operating globally in some 50 countries and with over 60 years' experience, and employs more than 100,000 people around the world.

The Steele Foudation
http://www.steelefoundation.com/

The Steele Foundation is a multinational firm providing a broad range of specialized risk management services that are designed to control loss by providing innovative and strategic business solutions. Since 1989, The Steele Foundation has been servicing a multinational clientele of governments, corporations, individuals and non-profit organizations to protect their interests 24/7. Proactive and comprehensive, our services eliminate business risks that affect your bottom line before they happen. The Steele Foundation has six core business groups including Business Investigations, Executive Security, Crisis Management, Behavioral Sciences, Information Security, Crisis and Environmental Services.

Triple Canopy
http://www.triplecanopy.com/

Dedicated to providing organizations with the capabilities and insight to reduce exposure to hostile threats.

UK Defence Services Ltd.
http://www.ukdefence.co.uk/main.htm

Offers physical security, close protection, canine services, electronic counter measures, maritime security and explosive ordnance disposal (EOD).

Vinnell Corporation
http://www.vinnell.com/careers.htm

A private military company, which is a recognized leader in facilities operation and maintenance, military training, educational and vocational training, and logistics, support in the United States and overseas. Since its modest beginnings

during the Great Depression, Vinnell has successfully completed projects on 5 continents and in over 50 countries for a variety of government and commercial customers.

Command and Control

As countries and militaries increasingly rely on contractors to supply vital assistance, the issue causing the most concern is accountability, control, and commitment.

Throughout history, participants in war have often been for-profit private entities, loyal to no one government. Indeed the state monopoly over violence is the exception in history rather the rule.[14] Every empire, from Ancient Egypt to Victorian England, utilized contract forces. The private provision of violence was a routine aspect of international relations before the twentieth century.[15] The practiced use of contractors in the military is widely used and although few are involved in covert or direct combat activities, their presence still blurs the line between soldier and contractor. The Army does not command and control contractors in the sense that it commands and controls military units and soldiers. Instead, contractors are managed, and the management mechanism is the contract itself. Managing contractors involves planning, visibility, and control, which are not unlike commanding and controlling soldiers.[16]

The primary reason PMC's are now gaining acceptance is that as the world becomes more intertwined, world powers can no longer be relied on to provide protection to smaller nation states, and with increased instability and terrorism, the need for contracted protection will become acute. Justification is that unless recognized as a global threat as with Iraq, Rwanda or Mogadishu, the United Nations seems reluctant to intervene on what it considers "internal domestic unrest". Until the confrontation escalates to genocide, only then will the United Nations act. Unless, it can be demonstrated without any doubt that there is a crime against humanity being committed, the population can expect little military assistance from the international community. Even then, the international community might be unwilling or unable to provide military assistance.[17] Unfortunately by then, countries may lay in ruin and thousands if not millions of civilians slaughtered.

As the level of international terrorism increases and military demands expand exponentially, the US Military will need to enjoin assistance from PMC's in addressing the immediate or potential threats. Some of the issues concerning this implementation include: 1) what will be the immediate and long-term impact PMC's will have on the countries that use their services; 2) how will the international community regulate PMCs; 3) what international regulations will be required; 4) what action will be taken to assure PMC's resign magnanimously

when contracts expire; and 5) what actions should be considered valid or in violation of international laws regarding human rights, compensations, and legal regress?

Command and control of PMC's will be an ongoing challenge for military and civilian organizations simply because of the unavoidable clash of cultures. While the military is focused on holding the line, PMC's are focused on the bottom line and may modify contractual responsibilities if the situation becomes unprofitable. There is, however, a basic question of accountability.

Governments are accountable to their people and their legislatures. Private corporations, on the other hand, have little accountability to the public and are to some degree shielded from the scrutiny of government. The major worry that everyone has is that these forces will become a law unto themselves.[18]

The challenge when managing PMC's on the battlefield is that under the Geneva Convention:

1) PMC's are not soldiers, and they cannot be specifically and deliberately exposed to the same risks as soldiers. They must be protected. This involves issues such as legal status, personal firearms, security, battlefield location, and nuclear-biological-chemical (NBC) protection.

2) PMC's are neither combatants nor noncombatants. They occupy a special niche called "civilians authorized to accompany the force." As such, they are entitled to some, but not all, of the protections afforded combatants and some, but not all, of the protections afforded noncombatants.

3) PMC's cannot be targeted deliberately for military action. But the function they are supporting can be. If the function is targeted and contractor personnel are killed or wounded, the law of land warfare regards them as legitimate collateral casualties.

4) PMC's cannot engage in activities inconsistent with their status. They cannot perform any purely military functions. They cannot participate in attacks on the enemy, nor can they occupy defensive positions to secure the unit perimeter.

5) Combatants (soldiers) are uniquely privileged to conduct war. In doing so, they can knowingly and deliberately kill opposing soldiers. No civilian ever has that right. If a soldier kills during warfare and subsequently is captured, he can be held only as a prisoner of war. A civilian who kills during warfare and subsequently is captured can be held, tried, and pun-

ished as a criminal. This is a powerful reason for not permitting contractor personnel to wear military uniforms; it avoids the potential for jeopardizing the soldiers' protected status.

6) PMC's cannot perform functions in direct support of hostile operations. It is extraordinarily difficult to determine the limits of this constraint. A system contractor employee who travels to the area of operations to perform minor technical maintenance on a weapon system that is still operational and capable of performing its intended mission may be violating the constraint against support to hostile operations. On the other hand, the same person performing the same maintenance on the same item in a maintenance facility in a safe area may not be in violation of the constraint.[19]

Lessons Learned

In the military, a key factor in maintaining force cohesion during combat is termed "command and control". The stronger the communication link between combatants and commanders, the more effective applied forces become.

The challenge in traditional command adjoining itself with PMC's is how does one fighting force authority supercede that of another especially if that force is self-contained, mobile, and heavily armed? One answer may lie in the selection of leadership methodology such as the blending of transformational and transactional leadership.

For the PMCs, the primary motivator is the bottom line or a return on investment to the shareholder. If tensions arise over the military objective versus profitability, the temptation by PMC's to cut corners or invalidate a contract mid-mission is a serious consideration.

At the outset, PMC's may bid a project (mission) for a set duration and price. If cost overruns increase operational expenses and profitability declines, PMC's may exercise legal options unheard of in a traditional military structure. During the Balkans conflict, for example, Brown & Root (now known as Halliburton) is alleged to have failed to deliver on, or severely over charged the US Army, on four out of seven of its contractual obligations.[20]

Another challenge is that, as PMC's become a normal part of the military fabric, political pressure on the military to accept PMC's as active participants on the battlefield may impact the way commanders are forced to formulate strategies, or how risk assessment is calculated. Because of their cost effective-

ness, politicians may be tempted to trade easy solutions for traditional values, or squander esprit de corps and professionalism for political expediency.

PMC's face little retribution if contractual agreements are not met and can not be relied on to hold their ground if the danger exceeds their ability to stay the course. How commanders communicate and interact with PMC's will be vital to achieving a successful integration of contractors into the battlefield. Since PMC's function on a tradition of transactional leadership, how commanders blend both the value sets of transactional and transformational leadership methods will greatly improve this union.

When blending two leadership styles it is important to consider that transformational leadership is different from transactional leadership in that transformational leadership is an attempt to alter the values and goals of the individual or group. Transformational leadership involves a selling process where the leader recruits followers based on a mutual goal or agenda. The essence of transactional leadership is the exchange of a carrot for a stick.

Transactional leadership uses a clearly defined chain of command where responsibility is well defined. With transactional leadership, responsibility is often assigned to subordinates, and although failure is not without risk, responsibility is often shared among those involved in the process.

From a military perspective, a primary concern is how to control a civilian force that is often as well armed, well trained, and motivated as those they serve. The focus from the contractor perspective is how to manage the process at a cost-effective level, and when to cut-and-run when risk exceeds expectations.

Because of the nature of the military, the need for formalized command and control processes is self-evident, for there are few organizations outside of the military (law enforcement and firefighters being the exception) where volunteers exchange individual need for the greater good, often at personal risk.

Supplementing existing forces with PMC's is now a battlefield reality that cannot be undone, but PMC's will not, and never will replace the professional solider because PMC's lack the key qualities of loyalty, dedication, duty and honor.

General of the Army Douglas MacArthur illustrated the essence of this in his final address at West Point on 12 May 1962 when he stated. "Duty, honor, country: Those three hallowed words reverently dictate what you ought to be, what you can be, what you will be. They are your rallying point to build courage when courage seems to fail to regain faith when there seems to be little cause for faith, to create hope when hope becomes forlorn...the long, gray line has never failed us. Were you to do so, a million ghosts in olive drab, in khaki brown, in blue and

gray, would rise from their white crosses, thundering those magic words: Duty, honor, country."[21]

Notes

1. P.W. Singer "Corporate Warriors: Rise of the Privatized Military Industry and Its Ramifications for International Security", International Security, Vol. 26, No 3 (Winter 2001/02). pp. 186-220.

2. Carl Von Clausewitz, On War, Ed. Trans. Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976.

3. Michael Mallett, Mercenaries and Their Masters: Warfare in Renaissance Italy (Totowa, N.J.: Rowman & Littlefield, 1974.)

4. Mallet, pp. 80-88

5. Singer, pp. 186-220.

6. Simon Shepard, "Soldiers for Hire," Contemporary Review, August 1999,

7. Edward J. Blakely and Mary Gail Snyder, Fortress America: gated Communities in the United States (Washington, D.C.; Brookings, 1977) , 126

8. Steven Saint,"NORAD Outsources," Colorado Springs Gazette, September 1, 2000, p. A1

9. Singer, (2001)

10. http://airacan.com, http://icioregon.com, http://www.mpri.com, http://sandline.com, and http://www.vinnell.com

11. Andre Linard, "Mercenaries SA," Le Monde Diplomatique, August 1998, p.31.

12. Stephen Metz, Armed Conflict in the Twenty-first Century: The Information Revolution and Post Modern Warfare, Strategic Studies Institute Report (Carlisle, Pa.: U.S. Army War College, April 2000) p.24.

13. Singer (2001)

14. Janice Thompson, Mercenaries, Pirates, and Sovereigns: State Building and Extraterritorial Violence in Early Modern Europe (Princeton, N.J.: Princeton University Press, 1994).

15. Jeffery Herbst, "The Regulation of Private Security Forces," in Greg Mills and John Stremlau. Eds., The Privatization of Security in Africa (Pretoria: South Africa Institute of International Affairs, 1999), p. 117.

16. Fortner, Joe, Managing, deploying, sustaining, and protecting contractors on the battlefield, Army Logistician, Vol. 32, Issue 5, Sep/Oct 2000.

17. United Nations General Assembly resolution 44/34 of 4 December 1989

18. Thomas K. Adams “The New Mercenaries and the Privatization of Conflict” PARAMETERS 1999 US Army War College Quarterly.

19. Fortner, (2000).

20. General Accounting Office, Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program, GAO/NSIAD-97-63, February 1997.

21. Address by General of the Army Douglas MacArthur to the cadets of the U.S. Military Academy in accepting the Sylvanus Thayer Award on 12 May 1962.

Facing Genocide: The United States Army as an Agent of Rescue

Keith Pomakoy

The scholarly community, humanitarian organizations, and victims' groups are becoming more effective at exposing instances of genocide and humanitarian crises around the world. Increasingly these groups harness the media to pressure policy makers. It is virtually certain that the United States Army will receive orders to wage anti-genocidal war in the near future, as, indeed, it may be doing in Iraq at this moment. While some scholars seem to understand the risks inherent in war, there often exists a gap between the realities of war and the hopes of rescuers. As the Army readies for this putative role, planners should be aware of the successes and failures of previous attempts to use state power, military and otherwise, to end genocide.

Genocide is a difficult word to define. The 1948 United Nations Convention on the Prevention and Punishment of the Crime of Genocide defined genocide as the "intent to destroy, in whole or in part, a national, ethnical, racial or religious group." While this offers a reasonably clear legal definition, the Convention suffers from at least two conceptual failures. First, its use of four privileged groups, arrived at by diplomatic compromise,[1] arbitrarily excludes other groups from consideration. Second, the UN definition requires "intent," and the lack of absolute intent has often been used to withhold the label genocide from deserving crimes. It is worth noting that Adolf Hitler, undoubtedly responsible for the genocide of the Jews, did not leave a paper trail.[2] The UN definition places a moral burden on signatories to prevent genocide, and, for practical reasons, governments have been hesitant to use the term. While the convention offers a useful legal tool, it also injects enough confusion into the issue that some of the most violent humanitarian crises of the second half of the twentieth century, including Cambodia under the Khmer Rouge, generally escaped the label genocide when the event occurred.

This is problematic because popular understanding often assumes that genocide is somehow worse – hence more worthy of attention – that other crises. The convention definition's conceptual failures have helped this process. However, a new subfield of scholarship, genocide studies, has emerged to question the convention definition, and, more importantly, to seek solutions to the genocide problem. Over the last twenty years genocide scholars have fought over the definition of genocide, and the term has taken on broader meanings. Currently, there is no consensus definition of genocide available in the literature.[3] There is a new determination among scholars and non-governmental organizations[4] to react to state sponsored killing campaigns aggressively. Ten years ago Secretary of State Colin Powell's use of the term to describe the situation in Darfur would have resulted in

significant scholarly debate over the definition. Now the debate has moved from definition to solutions. The old cry "never again" has become the rallying cry of well organized groups that look to American power as an agent of rescue.

The exercise of power is fraught with unpredictability. Norman Rich once offered the "cautionary tale" of the Crimean War, suggesting that careful negotiations offer a much safer path than war. America has rarely resorted to the open exercise of power in response to humanitarian crises, but has often engaged in more subtle rescue operations. Some of the most successful cases of rescue lacked the drama of Kosovo or Somalia, and have received little attention. Yet it is especially important for policy makers, who seldom have clear choices before them, to be familiar with the various paths open to would be rescuers. In simple terms genocide is similar to other humanitarian crises; the victims of genocide are neither more nor less deserving of aid than the victims of natural disasters. The same basic plan of rescue can be used—first, the conditions unfavorable to life must end, and second, enough aid must be sent to help those who can be saved. In natural disasters one must wait for nature to stabilize, and then rush in with help. In cases of state sponsored mass murder, such as genocide, convincing the perpetrators to end the killing is necessary but often difficult. Rescue, like diplomacy, is very much the art of the possible.[5]

Despite the expenditure of considerable resources on the study of genocide over the last generation, America's attempts to end genocide are virtually unknown and receive little attention in the scholarly literature. America's response to the Holocaust has been debated extensively, but narrowly, and has not paid significant attention to American philanthropy.[6] The Pulitzer Prize winning monograph "*A Problem from Hell: America and the Age of Genocide*" branded American policy in the 1915 Armenian Genocide a "nonresponse … that established patterns that would be repeated."[7] A more recent account has suggested that American philanthropy was "principally responsible for saving the remnant of the genocide," but this work stopped short of a full explanation of American policy.[8] The literature of a third important event, the Spanish-American War, generally admits that humanitarian considerations played an important, if underrated, role in policy,[9] but rescue scholarship almost never discusses this event. It is not clear whether the events in Cuba from 1895 to 1898 represented genocide or some morally analogous term,[10] but 1898 did see the use of military force to end a vast humanitarian crisis.

It is in Cuba that a study of rescue should begin. In 1898 the US V Corps landed in Cuba and brought an end to a conflict that had seen at least 200,000 people die.[11] Indeed Cuba illustrates the difficulties of rescue. When the Cuban Insurrection began in 1895, America reacted passively, hoping that Spain would

restore order and with it the good business environment and sugar supply so vital to the American economy. Spanish attempts to pacify the island resulted in the establishment of concentration camps holding at least 400,000 Cubans in starvation conditions. In 1897 the death rate in these camps increased dramatically, and American policy hardened. The administration of President William McKinley pressured Spain to end the killing. On January 1, 1898, America's Minister in Madrid, General Stewart L. Woodford informed Washington that non-humanitarian concerns with Spain, including trade, had to be put on hold while he was "endeavoring to secure an early and effective change in the methods of conducting the war in Cuba." This, he said, represented the "diplomatic matters of chiefest concern between our government and that of Spain."[12]

The pressure seemed to work. In December Spain offered to let American philanthropy into Cuba, and McKinley called upon Americans to raise money for the Cubans. He dispatched Clara Barton to the island to supervise the distribution of relief. The Central Cuban Relief Committee (CCRC), which enjoyed official status as part of the State Department, coordinated philanthropic efforts.[13] CCRC aid flowed to Cuba immediately, and raised over $321,000 by June.[14] However, as it became apparent that Spanish policy had not changed as much as Washington had hoped, war became almost inevitable. In March, Woodford informed the Spanish government that "the horrible facts with regard to the famine, destitution, sickness, and mortality among the people of the island had gradually become known to [America], and that humanity and civilization required that peace must be secured and firmly established at once… even beyond and above all questions of the destruction of American property interests in Cuba, the great and controlling questions of humanity and civilization require that permanent and immediate peace be established and enforced."[15]

War, when it came, immediately stopped rescue operations. Alfred Thayer Mahan, America's great practitioner of realpolitik, authored a plan to blockade Cuba, and the US Navy instituted a close blockade at the start of the war. According to Mahan, this was "unbloody pressure" that could "compel peace without sacrificing life."[16] The blockade and the withdrawal of the humanitarian workers—over Barton's protest[17]—halted rescue. But McKinley's war plan called for an early invasion of the island. The army wanted time to train recently federalized National Guard units, and the navy wanted to capture Puerto Rico—which, according to at least one US Navy captain, would make "Cuba an easy question."[18] Yet McKinley prevailed and, once the Spanish fleet was located, he ordered the invasion of Cuba.

The invasion allowed aid workers to return with the soldiers, and the surrender of the island ended the camps and brought a return to normality. Despite the

apparent brutality of the blockade and the withdrawal of humanitarian workers, Mahan's "unbloody pressure" facilitated the rapid conquest of Cuba, mitigated the weaknesses of the US V Corps, and removed the real cause of suffering—Spanish policy. A longer war would have been disastrous for the Cubans, and it was fortuitous that the American invasion succeeded so quickly. CCRC could have avoided the added suffering imposed by the war if the Spanish had relented, but Spain seemed intent on retaining its empire by any means necessary. In 1898 America had the power to intervene, and did so, but this complicated humanitarian concerns before solving the underlying problem.

The philanthropy of 1898 would become the pattern, if not the model, of American responses to genocide in the first half of the twentieth century. In 1915 America did not have the power to intervene in the Armenian Genocide. Presidents Theodore Roosevelt and Woodrow Wilson both commented on this point, as did Senator Henry Cabot Lodge.[19] Officials on the scene, including Ambassador Henry Morgenthau, thought that an official protest would be harmful. Worse, Morgenthau thought such an act would most likely result in an increase in Ottoman attacks against the Armenians.[20] Near East Relief (NER), the American committee formed to aid people suffering in the Ottoman Empire and surrounding areas, also considered protests useless.[21] Hoffman Philip, chargé of America's embassy at the Porte, suggested the withdrawal of America's diplomatic representative in protest, but he too thought that this would make the situation worse.[22]

Placed in a nearly powerless situation America again turned to philanthropy. The Armenians who had fled to the Syrian desert lacked all essentials, and the Armenians who had escaped to the Russian Caucasus were only slightly better off. It is not clear why Ottoman officials allowed American aid to reach the Armenians in the desert (although sectional politics and international attention probably account for this opening), but significant aid flowed to the Armenians. State Department officials and American missionaries distributed the relief, and American philanthropists, led by Morgenthau, were careful to avoid any action that might offend the Ottomans and end the opportunity to save the Armenians. NER, an independent charity group with very close government ties, raised over 100 million dollars to help the Armenians, and claimed to have saved one million lives.[23] This was a crisis in which pressure and force—because no state could devote overwhelming resources to the problem at that moment—would only make the situation worse. Hence America pursued a much more subtle policy that, as Merrill Peterson pointed out, was "principally responsible for saving the remnant of the genocide." This became America's most successful rescue campaign, and it is notable that America applied no military pressure against the Ottomans.

World War II posed the greatest humanitarian crises yet caused by mankind. German and Japanese racial campaigns consumed somewhere between thirty and forty million people.[24] During this crisis America again turned to philanthropy, sometimes, but not always, with State Department support. A mobilization of charities raised over one billion dollars for the effort. The coordinating body of American relief, the National War Fund (NWF), claimed that its foreign relief reached 144,400,000 people, and supplied 40,894,000 pounds of food, 99,400,000 pounds of clothing, and 67,216,000 pounds of medical and other supplies – surely a massive undertaking.[25]

The main limitation on the efficacy of World War II era American philanthropy was the power and determination of the Axis powers to kill until the very end of the war. Gerhard Weinberg wrote that "very little could be done to assist Germany's Jewish victims by the Western Powers, who were losing the war on land until the end of 1942, losing the war at sea until the fall of 1943, and who were unable to assure victory in the air until February to March of 1944." Weinberg, who is perhaps the leading expert on World War II writing in English, commented that the notion that bombing Auschwitz would have halted killing was "preposterous," and warned against diverting military power away from the war effort. Weinberg writes that:

> *Given the determination of the Germans to fight on to the bitter end, and given the equally fierce determination to slaughter Jews into the last moments of the Third Reich, there were, as is well known, thousands of deaths every day into the final days of the war; and many of the surviving camp inmates had been so weakened by hunger and disease that thousands more died even after liberation. In this connection, it might be worthwhile to consider how many more Jews would have survived had the war ended even a week or ten days earlier – and conversely, how many more would have died had the war lasted an additional week or ten days. Whatever numbers one might put forward in such speculations, one thing is or ought to be reasonably clear: the number would be greater than the total number of Jews saved by the various rescue efforts of 1943-45.*[26]

Hence Weinberg realizes that the only thing that could save most[27] of the victims of Axis policy was the end of the war, and military power would best be used bringing the enemy to their knees. No Ottomans were the Germans and Japanese.

From this brief glimpse into these three case studies, one can draw important lessons about rescue policy. Certainly it is worth restating Rich's cautionary tale:

war is unpredictable. Going to war in 1898 complicated relief operations, and attempts to divert resources in 1944–1945, had they been successful, probably would have been counterproductive. Perhaps most intriguing was the success enjoyed by the far more limited efforts in the Ottoman Empire after 1915—without force. While not a complete success (an estimated one million people died despite America's best efforts[28]), Armenia still represented America's greatest rescue achievement. The factor that separated the success stories from the failures remained, and remains, the determination of perpetrators to kill, and their capacity to resist American power.

The collapse of Soviet power resulted in a relative increase in American power, and the three administrations who have held office since the end of the Soviet Union have exercised that power, if with different visions, for similar ends. All three presidents have launched humanitarian ventures. Whether this is "delivering the pizzas" or not, as one talk show host was wont to say,[29] the humanitarian mission has become increasingly important, and the implications of the Bush Doctrine suggest that this role may acquire increased significance over the next few years. Policy planners, and activists, might consider the following: the humanitarian mission in Somalia did not succeed; the limited campaign in Kosovo, which was eventually successful, left Kosovar women and children vulnerable to Serb attacks; and the war in Iraq, which drove out the genocidal Baathist regime, has resulted in a prolonged period of instability and a humanitarian crisis of its own. Yet the far less dramatic intervention in Liberia, too slow to be sure, seems to offer the hope of a return to normality that is essential for people to thrive.

What, then, do we do about the ongoing genocide in Darfur? Military force does not seem to be the answer, for such a move would probably fuel the instability in the region and invite attacks from extremists. Philanthropy seems to offer much more hope, and the subtle course might succeed with the correct amount of pressure. It depends on the will and the calculations of the Khartoum government. Yet this is an imperfect and unsatisfying solution. That, perhaps, is the lesson of the moment. There is no perfect, easy, or safe remedy to the problem of genocide. With some foresight tomorrow's military can respond with a plan tailored to particular circumstances so that the humanitarian exercise of force does not exacerbate the problem. The next time the US Army is committed to a humanitarian crisis the successes and failures of the mission will probably rest with factors outside of military control, and planning will be difficult. However, there are some virtual certainties: genocide will occur again; political pressure will be directed at America to do something; and a future administration will turn to the military to intervene.

Notes

1. United States Delegation Position Paper, December 6, 1948, Foreign Relations of the United States 1948, vol. 1, General, United Nations Part 1 (Washington, 1975), pp. 298-302, hereinafter FRUS; Raymond Dennett and Robert K. Turner, eds., Documents on American Foreign Relations, X, International Social Cooperation (Princeton, NJ, 1950), pp. 428-30.

2. Hitler made some public statements against the Jews, but there is no document bearing Hitler's signature that directed or ordered the destruction of the Jews.

3. For similar conclusions, see Frank Chalk and Kurt Jonassohn, The History and Sociology of Genocide: Analyses and Case Studies (New Haven & London, 1990), p. xvii, and Samuel Totten and William S. Parsons, "Introduction," in Totten, Parsons, and Israel W. Charny (eds.), Century of Genocide: Eyewitness Accounts and Critical Views (New York, 1997), pp. xxi-xxxix.

4. For instance, one may see the efforts of the Genocide Intervention Fund, at http://www.genocideinterventionfund.org/.

5. This, of course, borrows from Bismarck's phrase.

6. For a brief sample of this debate, one may see David Wyman, The Abandonment of the Jews: America and the Holocaust, 1941-1945 (New York, 1984); Verne W. Newton, FDR and the Holocaust (New York, 1996); William D. Rubinstein, The Myth of Rescue: Why the Democracies Could not have Saved More Jews from the Nazis (London & New York, 1997); Michael J. Neufeld and Michael Berenbaum (eds.), The Bombing of Auschwitz: Should the Allies have Attempted it? (New York, 2000). One will note that this debate neglects the non-Jewish experience. The efforts of humanitarian groups, such as the Emergency Rescue Committee, are only rarely discussed.

7. Samantha Power, "A Problem from Hell": America and the Age of Genocide (New York, 2002), p. 13. This event continued throughout and after World War I, and consumed non-Armenians as well as Armenians.

8. Merrill Peterson, "Starving Armenians": America and the Armenian Genocide, 1915-1930 and After (New York, 2004), p. 12. For criticism of this work, see this author's review of Peterson in Journal of American History 92:1 (June 2005), p. 261. One should also see Peter Balakian, The Burning Tigris: The Armenian Genocide and America's Response (New York, 2003), and James L. Barton, Story of Near East Relief 1915-1930: An Interpretation (New York, 1930).

9. See, for instance, Warren Zimmermann, First Great Triumph: How Five Americans Made their Country a World Power (New York, 2002), p. 251, who writes that humanitarian concern represented "a major and still underrated factor" in American policy; Ivan Musicant, Empire by Default: The Spanish American War and the Dawn of the American Century (New York, 1998), p. 69, writes that Spain's civilian policy in Cuba "did more to bring on the Spanish-American War than anything else the

Spanish could have done"; Kenneth E. Hendrickson, Jr., The Spanish-American War (Westport, CT, and London, 2003), p. 9, writes that "what began as an effort to stop inhuman behavior in Cuba … erupted into a war"; David Traxel, 1898: The Birth of the American Century (New York, 1998), p. 14, writes that President McKinley was "doing all he could to keep the United States at peace while trying to ameliorate conditions in Cuba." Philip S. Foner, The Spanish-Cuban-American War and the Birth of American Imperialism, 1895-1902, I, 1895-1898 (New York and London, 1972), p. 310, pursues a Marxist explanation of the cause for the war, writing "the war to liberate Cuba was thus a war to prevent its independence … and open the door for the economic and political domination" of the U. S. But Foner also writes that "no analysis of the road to war can ignore humanitarian sentiments."

10. John L. Offner, An Unwanted War: The Diplomacy of the United States and Spain over Cuba, 1895-1898 (Chapel Hill & London, 1992), pp. 112-13, labels Spain's policy "genocide." Rudy Rummel, in a June 30, 2004, email to the author, referred to the policy using his term "democide," which is morally analogous to genocide.

11. For a discussion of death figures, see Offner, p. 13, n. 27. Authors generally list the numbers of dead around 200,000, but estimates range from "thousands" to 400,000. George J. A. O'Toole, The Spanish War: An American Epic – 1898 (New York and London, 1984), p. 22; Hendrickson, p. 7; David F. Trask, The War with Spain in 1898 (Lincoln and London, 1984), p. 9; Traxel, p. 14; Foner, pp. 110-18.

12. Woodford to Secretary of State John Sherman, January 1, 1898, Dispatches from United States Ministers to Spain, 133, State Department Central Files, RG 59, National Archives and Records Administration, College Park, MD.

13. CCRC, mixing private money and public resources, functioned along the pattern established by some earlier relief efforts. One should see Charles M. Pepper, Life Works of Louis Klopsch: Romance of a Modern Knight of Mercy (New York, 1910).

14. Report of the Central Cuban Relief Committee, New York City, to the Secretary of State, Washington, D. C. (hereafter CCRC), First Report, June 15, 1898. The New York Historical Society, microfiche circulating copy.

15. Woodford to Sherman, report of a conversation with the Spanish Minister of State, March 25, 1898, 133, RG 59.

16. Alfred T. Mahan, Lessons of the War With Spain: and Other Articles (Freeport, NY, 1899), pp. 104-06.

17. Clara Barton to Rear Admiral William T. Sampson, May 2, 1898. Sampson to Barton, May 2, 1898. Text of both in George Kennan, Campaigning in Cuba (New York, 1899), pp. 10-12. CCRC, Final Report, February 15, 1899, pp. 75-76.

18. Captain Chadwick to Secretary of the Navy John D. Long, April 30, 1898. Gardner Weld Allen (ed.), Papers of John D. Long 1897-1904 (Boston, 1939), pp. 108-9. Mahan

agreed that a war fought for realpolitik would have resulted in an invasion of Puerto Rico before Cuba. Mahan, pp. 26-29, 207-38.

19. Roosevelt to Samuel T. Dutton, November 24, 1915, in Theodore Roosevelt, Fear God and Take Your Own Part (New York 1916), pp. 377-83. This letter, often interpreted as a call to arms by TR, is the exact opposite. Woodrow Wilson, "An Address on Preparedness in Kansas City," February 2, 1916. Arthur S. Link (ed.), The Papers of Woodrow Wilson, vol. 36 (Princeton, 1981), pp. 100-106. Henry Cabot Lodge, War Addresses, 1915-1917 (Boston and New York, 1917), pp. 66-70.

20. Morgenthau to Robert Lansing, July 16, 1915, 867.4016/76, Records of the Department of State Relating to the Internal Affairs of Turkey, 1910-1929, State Department Central Files, RG 59, National Archives and Record Administration, College Park, MD.

21. James Barton, pp. 58, 64-66. After the American declaration of war on Germany, American aid workers in the Near East were attached to the Swedish Legation. Near East Relief is used for clarity, but the committee had several names during the period under study. These include Armenian Relief Committee, Armenian and Syrian Relief Committee, and American Committee for Relief in the Near East. The organization was chartered by Congress in 1919 under the name Near East Relief. The organization became Near East Foundation in 1930 and still bears that name today.

22. Philip to Lansing, October 1, 1916, 867.4016/297. Philip also suggested that this might not be the case.

23. See James Barton, Story of Near East Relief, passim. The monetary figure amounted to $116 million by 1930. One must critically examine the one million figure, as it was part of a marketing campaign. However, NER documents clearly account for 700,000 adults and 130,000 orphans under their care. While one million appears to be a guess, it is not baseless.

24. Rudolph Rummel, in Death by Government (New Brunswick and London, 1994), pp. 111-22, uses the figure 20,946,000 to represent the death toll from Nazi racial policies. Richard B. Frank, in Downfall: the End of the Imperial Japanese Empire (New York, 1999), p. 163, offers the figure of 17,222,500 for Japanese crimes. Iris Chang uses Rummel's figures and concludes, in The Rape of Nanking: The Forgotten Holocaust of World War II (New York, 1997), pp. 216-17, that as many as 19 million Chinese were killed by the Japanese.

25. The President's War Relief Control Board, Voluntary War Relief During World War II: A Report to the President (Washington, 1946). While much of this billion dollar figure went to projects such as the USO, $464,191,775 was distributed in "war-ravaged countries," pp. 1-24. Report of the National War Fund, 1943-1946 (Washington, 1946), pp. 11-12.

26. Gerhard Weinberg, "The Allies and the Holocaust," in Neufeld and Berenbaum, pp. 15-26.

27. Weinberg commented that “there were some minimal possibilities of rescuing Jews, but they were minimal indeed.” Ibid.

28. Reasonable estimates of the Armenian Genocide vary from 600,000 to 1.5 million. It is doubtful if an accurate count will ever be possible. For a contemporary estimate, see Boghos Nubar, President of the Armenian National Delegation, to Wilson, April 17, 1918, FRUS, 1918 World War Supplement 1 (Washington, 1933), pp. 886-87. His claim of 1 million dead is almost certainly an overstatement from one who wanted American guarantees of Armenian independence in a vast area; Nubar to Lansing, May 24, 1917, FRUS, 1917 World War Supplement 2 (Washington, 1932), pp. 791-95. Morgenthau claims that between 600,000 and one million died. Henry Morgenthau, Ambassador Morgenthau’s Story. This is a somewhat polemical account of actions in the Ottoman Empire from the start of the war until Morgenthau resigned, and needs careful scrutiny to be of value. It is instructive of contemporary estimates; Martin Gilbert, The First World War: A Complete History (New York, 1984), p. 167. Although Gilbert does not give a source for his claim, he seems to be using the Morgenthau formula; Justin McCarthy, in the work that reportedly earned him death threats from Armenian terrorist groups, published population figures compiled by Armenians that show that the pre-war population did not consist of 1.5 million Armenians. Muslims and Minorities: The Population of Ottoman Anatolia and the End of Empire (New York & London, 1983), pp. 47-88. Because of the manner in which the Ottoman Empire counted people, all of these estimates remain either complicated or baseless estimates.

29. G. Gordon Liddy tended to offer this criticism of Clinton’s military policy.

Pomakoy Slide Addendum:
Facing Genocide: The United States Army as an Agent of Rescue

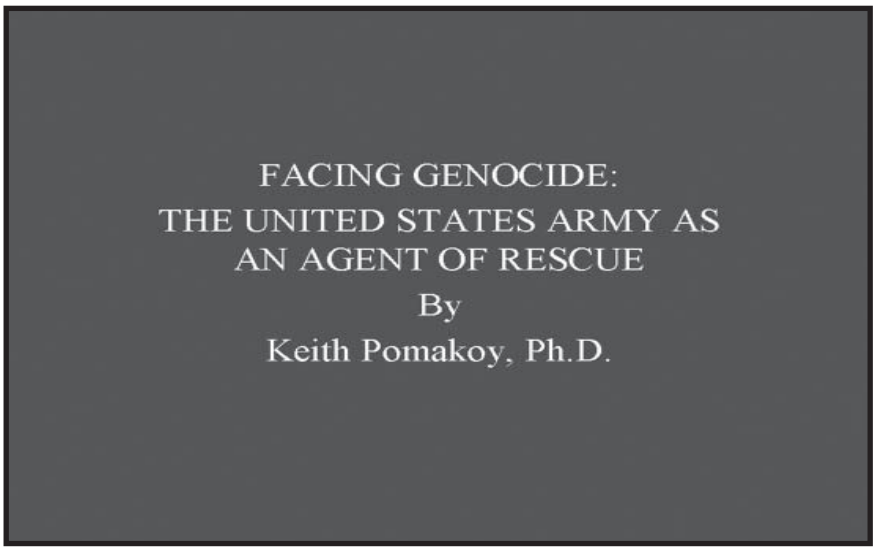


Figure 1

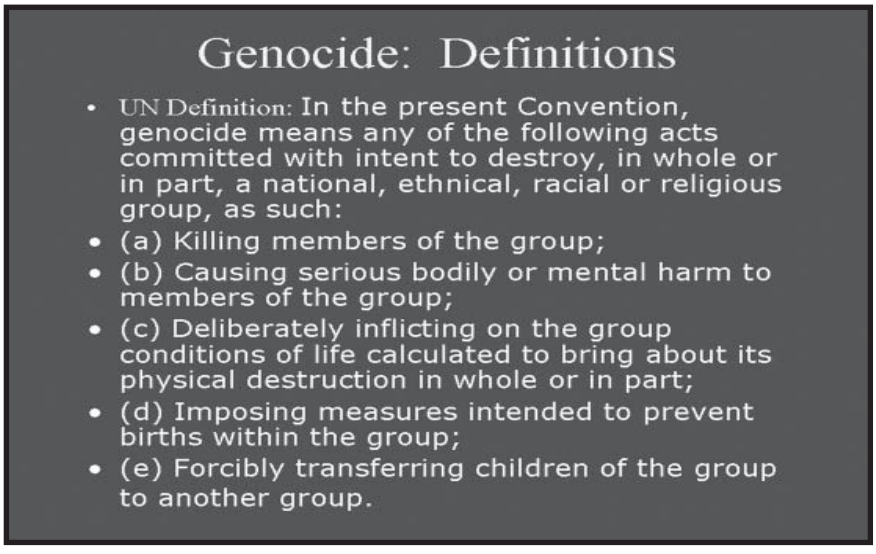


Figure 2

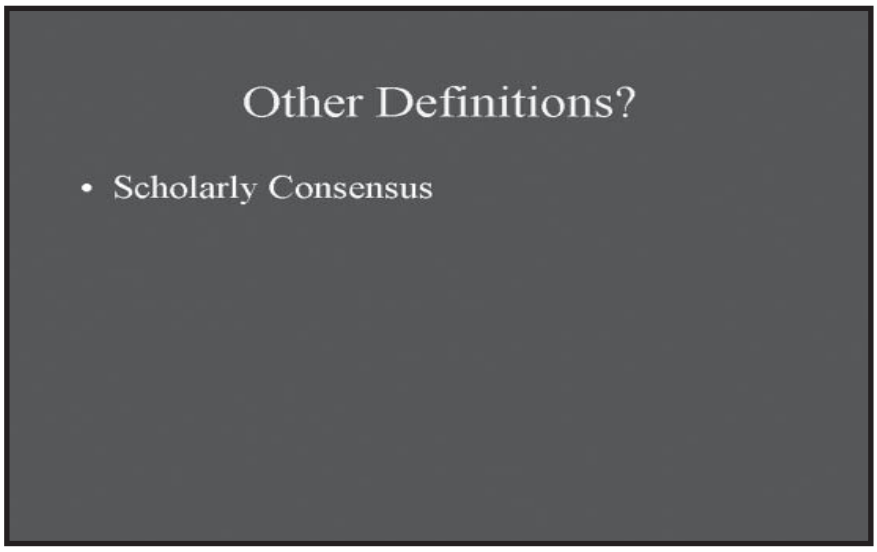


Figure 3

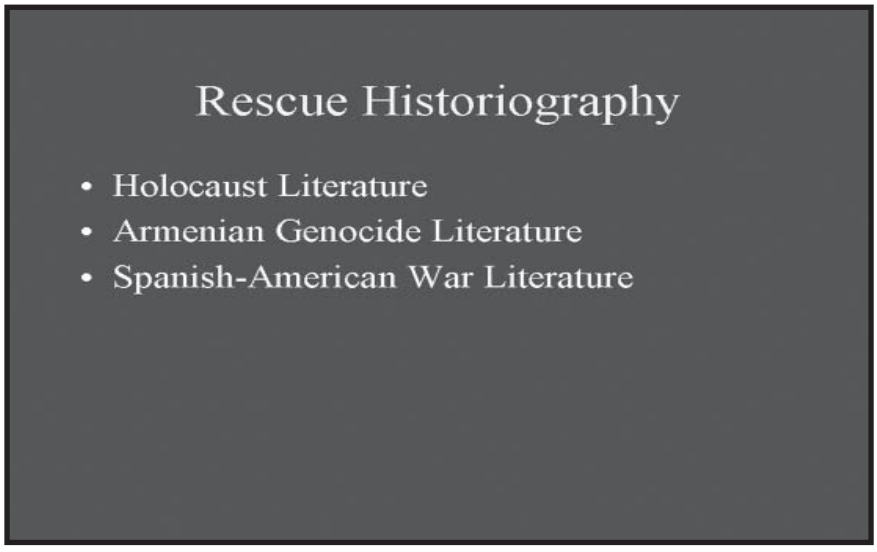


Figure 4

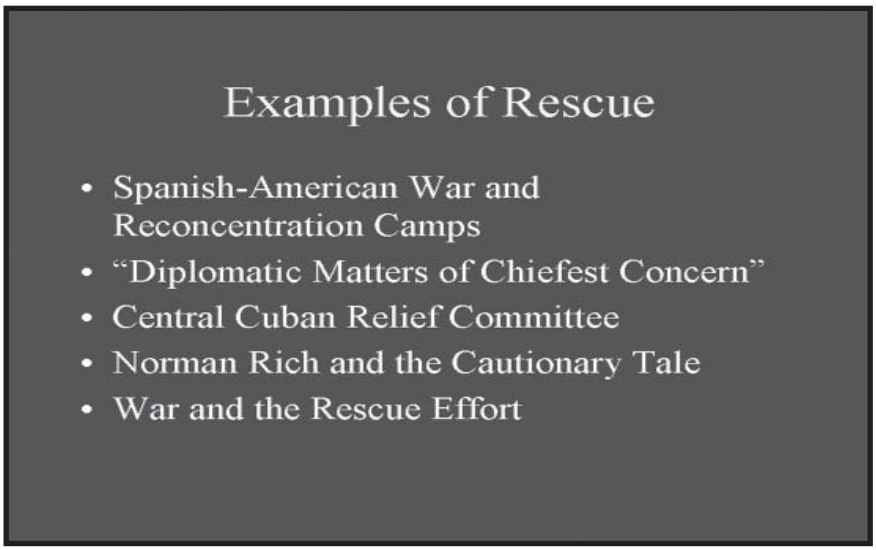


Figure 5

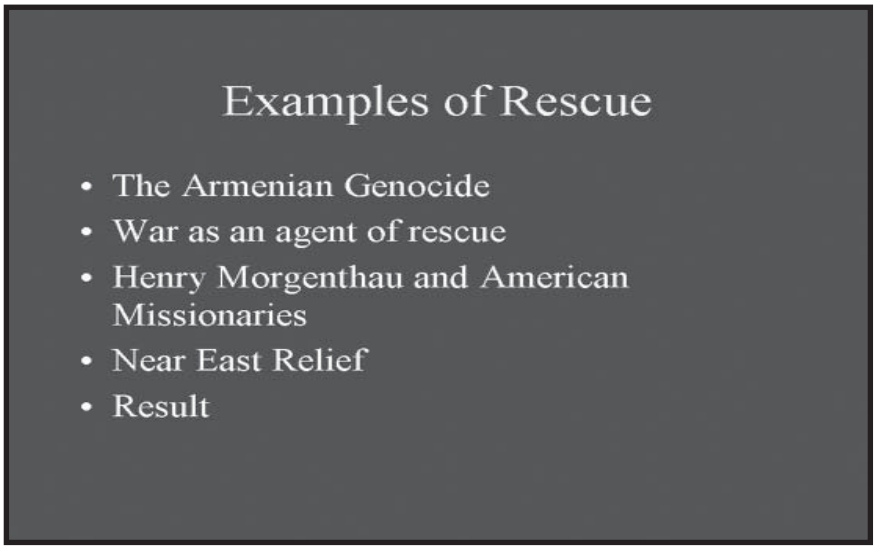


Figure 6

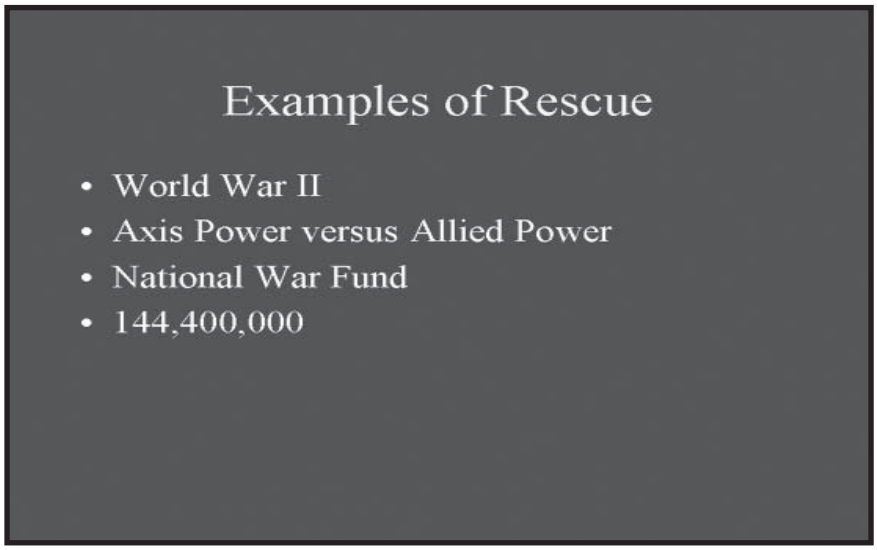


Figure 8

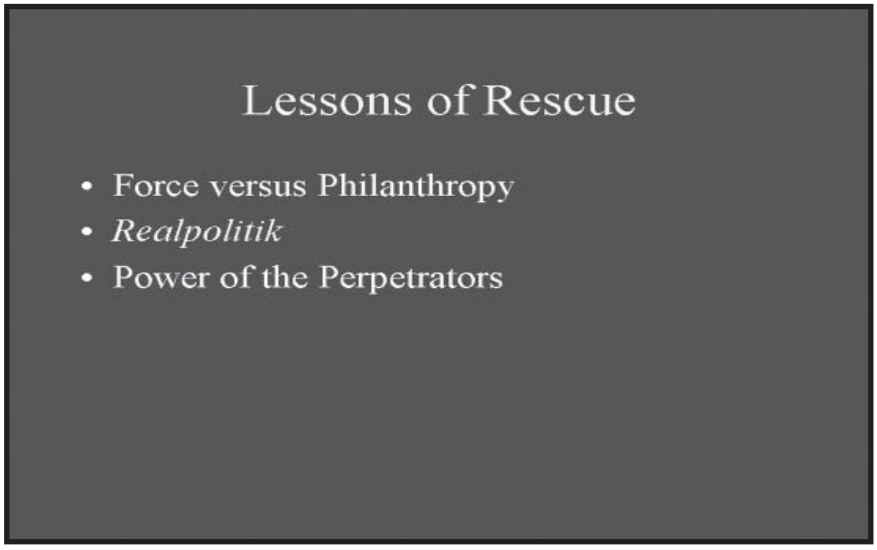


Figure 9

Figure 10

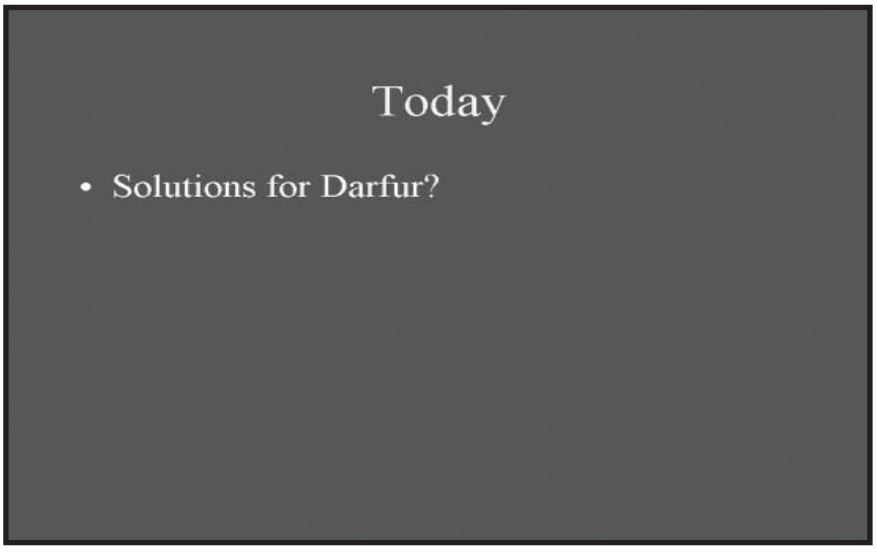


Figure 11

Case for Using an Afghan Auxiliary Force to Support Expeditionary Operations in Iraq

Captain Roberto Bran–2d Infantry Division

I'm presenting here a work in progress. It originally began as a concept paper that was drafted for the Afghan Reconstruction Group, with Brigadier General Patt Maney and Jack Bell before him. When I first wrote it, it was to use Afghans under an umbrella of Private Military Companies, which actually would have fit Dr. Hennefer's position quite well. But I'm now arguing a more formal, more permanent, less mercenary argument, and you'll see that as we go on.

On my background, I spent six months with Coalition Task Force *Phoenix*, working under Colonel Milley and Brigadier General Prasek, where I trained the weapons company. Also, what we found was that the Afghans were very strong on military fighting, but they were very weak on administrative and logistical matters. So I actually spent less of my time doing the weapons company bit and a lot more of it training their staff on maintenance, administrative, and logistical matters.

Then I also spent eight months with Combined Forces Command Afghanistan when General Barno's headquarters was stood up in theater—they just brought me from Pol-e-Charki over to Kabul, and I worked as the interagency planner. There was really no reason for it other than I probably complained so much at Task Force *Phoenix* about what was going on that they wanted to teach me a lesson—that things were a lot more difficult at the strat level than I thought, and they taught me well. [Laughter]

Okay. The British Ghurkas—and this is the model that I'm looking at towards employing our Afghans; sort of very similar to the way the British employ their Ghurkas (**Figure 1**). The Ghurkas themselves are citizens of Nepal, and they're descendants of the 8th century Hindu warrior saint Guru Gorkhnath.

They fought against the British East India Company 200 years ago, and over the course of these wars and this fighting, a mutual admiration and respect developed between the two sides, to the point that eventually, when India received its independence, a tripartite agreement was signed between the three parties—Nepal, India, and Britain—that would allow these British Ghurka units to continue to exist within the British Army, and four regiments continue to exist to this day; there's, I believe, eight in the Indian Army.

They have supported the British in just about every single deployment that the Brits have done—most notably in Argentina when they practically single-handedly destroyed the Argentineans in the Falkland Islands, or the Malvinas.

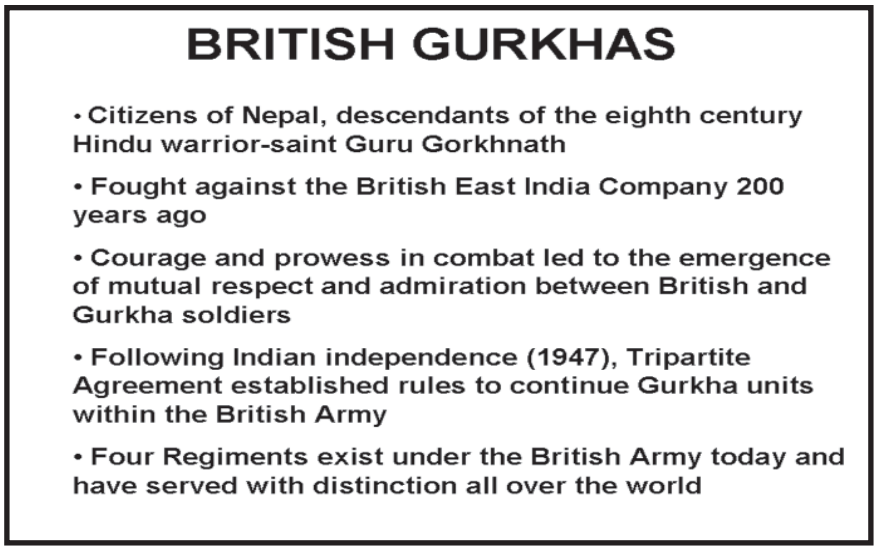


Figure 1

The membership in the Brigade of Ghurkas is highly prized for the people of Nepal, or at least the Ghurka people of Nepal (**Figure 2**). There's nothing there, there's no opportunities for them, so they very much want to do this. I bring this up only because it's important to note that for about 230 positions they fill every year, the British get about 10,000 to 15,000 applicants. So they can't even keep up; they're turning people back all the time.

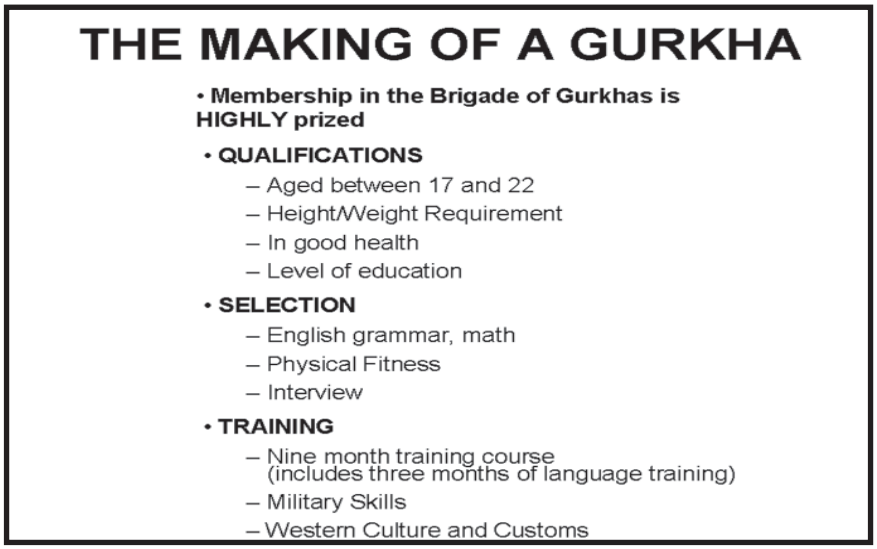


Figure 2

The qualifications they use—simple: age, height-weight requirement, they have to be in good health, and they have to have a minimal level of education. I'm going to talk about that as it applies to the Afghans, because obviously, we're not going to be able to just take this template and put it on top of the other one.

When it comes to selection, they get picked off their ability to do English, grammar, and mathematics, physical fitness—they do a very strenuous exercise—and then they actually do an interview with British officers and British NCOs, who pick them out. Then they finally get sent off for training, where they do a nine-month training course, which includes three months of language training. They learn military skills, obviously, and Western culture and customs.

So when we apply that to the Afghan auxiliary force that I'm suggesting, I'm basically saying that we start by identifying our Afghan volunteers at these—it could be very similar to the National Army Volunteer Centers that already exist within Afghanistan or recruit for the Afghan National Army. Now that may be a political decision that we don't want to actually have them be embedded with one another and we do it out of separate offices, but that's just my proposal at this point.

We screen them for qualifications and select them for a five-year enlistment, and I'll talk about that a little bit more. The family support channel is actually pretty important. Most Afghans work in support for their entire family, and it's a very big issue for them, because there is no banking system to speak of in Afghanistan, so when they get their paycheck in hard currency, they have to travel around the countryside, back to their province to pay their family, and then they come on back.

It affects training cycles pretty heavily if you're with Task Force *Phoenix*. But a similar channel would have to be developed within Afghanistan itself where we could get the payment to their families, so that their families were getting paid, and they're reassured and feel confident that their families are being paid; otherwise, you're going to have a serious problem—no one likes to serve for free.

Selectees would be assembled into a training Kandak and brought to a CONUS training camp, so we'd bring them over to the states, probably someplace isolated from the rest of the US, where we could train them, both in their basic training, and eventually, probably even keep them there for their barracks, for their standing army requirements. The place I recommended was the National Training Center, because it looks just like Afghanistan. [Laughter] You could build a camp out there and maybe by East Gate, Jackhammer Pass; you could build somewhere out there. You might have to dispossess some meth lab cooks off their property, but...[Laughter].

Training the auxiliary force (**Figure 3**). This is actually Afghanistan, so you can see it doesn't look much different from good old Barstow. I'm proposing a ten-month training program in which they would learn your basic soldier skill training. By that, I mean qualifications, physical fitness,common task training (CTT), the warrior "40 and 9," which are tasks and drills that every soldier has to be proficient in.

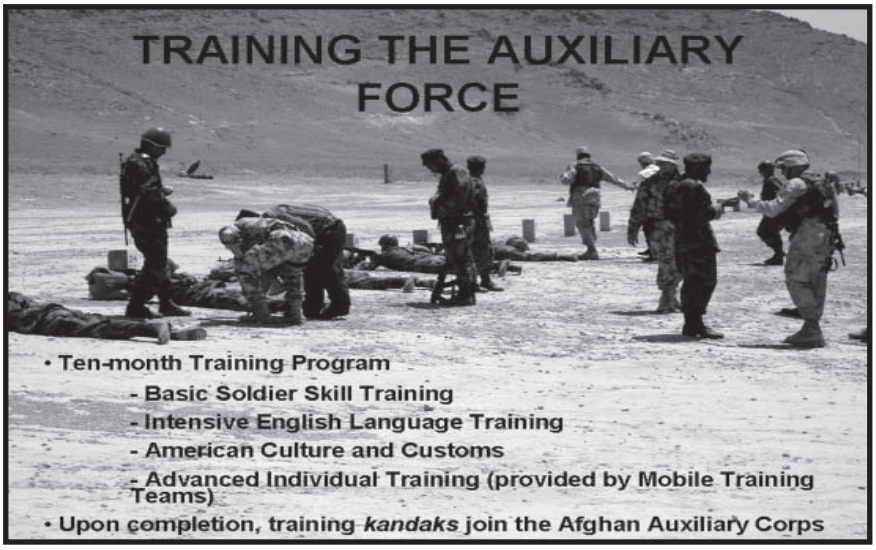


Figure 3

Intensive English language training—we would have to do a lot more of this than the British have to do with the Ghurkas, because most Afghans don't speak English. And they're also uneducated. Most of them—I don't want to say most of them—but probably half of them can't read or write. That's a serious problem when you're trying to teach people skills that they need to learn, so we have to be slow and patient with their development. But we do want to make sure they can shoot, move, and communicate, which are the basics of the soldier skills.

The American culture and customs—as I said, they're warriors, but they're not soldiers, within the customs of their culture. They can fight, they can do great things, but they're not necessarily—they don't understand why they have to belong to a prospective squad. We would take them down there and do training, they'd get bored of whatever training their platoon was doing, and they'd just go join another platoon because they liked what those guys were doing instead. [Laughter] Those are the kinds of things you have to be cognizant of, as you're bringing them through the course and bringing them in line with more of a Western army.

Then for advanced individual training (AIT) itself, rather than ship them out to Fort Gordon to learn signal stuff or ship them to Fort Knox if there's going to be a mounted component of this, or ship them to wherever, bring in mobile training teams (MTTs) and have the MTTs train them right there on Camp Irwin, or Camp Meth, whatever we want to call it, where they can learn their procedures there.

Upon completion of their training, the initial Kandaks would join the Afghan Auxiliary Corps, probably as the standing Kandaks. In the future, we'd be bringing them in as individuals joining the pre-existing organization itself.

Now what do I think this thing looks like? (**Figure 4**) I think it's fully functional light infantry battalions, and I think it needs to have its slice elements already organic to it. By the slice elements, I'm talking about the field artillery, the engineers, forward support companies, that allow these battalions to exist on the battlefield. Otherwise, you're going to be borrowing from existing American organizations, and that's going to cause some problems. I'm thinking the officer corps is drawn from the ranks of the United States Army, and the soldiers are drawn from these Afghan volunteers.

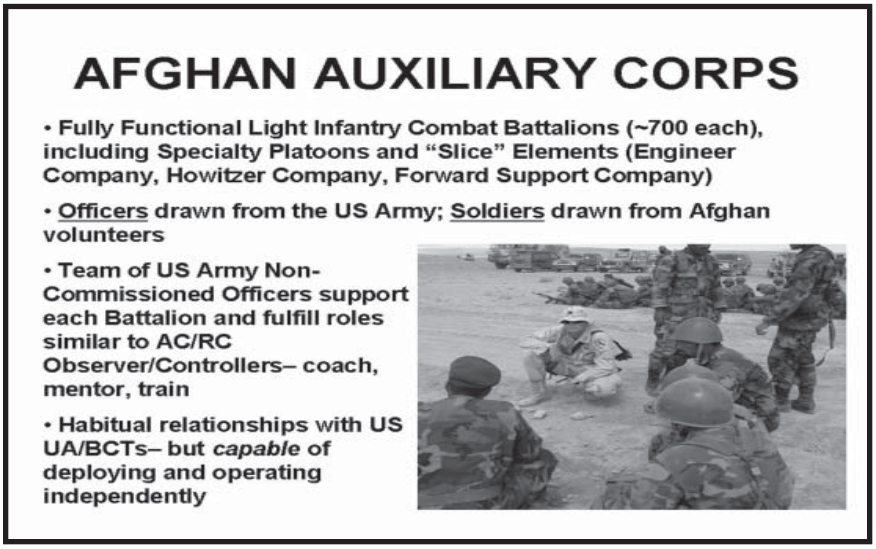


Figure 4

The teams of the noncommissioned officers, as I see it, are essentially like fulfilling the function of what active component/reserve component (AC/RC) fulfills for the National Guard and the Army Reserves, in which they're coaching, mentoring, and training these different organizations and units, because we're going to start off with Afghan noncommissioned officers (NCOs)—sergeants who we've identified based on their proficiency in a very short course. So we're going

to have to teach them what it means to be an NCO, because you can't just grow an NCO overnight. We're having this problem with Afghan National Army and we will have it with the Auxiliary Corps. It will take some time to develop it, but if we have full-time mentors who are coaching them through the process, I think that it would improve the system itself.

Finally, as I see it, I think it works better if you have them with habitual relationships with US Units of Action, Brigade Combat Teams—whatever we're going to be calling them in the future. But it's important that they are capable of deploying and operating independently, because there's going to be times when we want to deploy them and not the rest of the US Army, or components of the US Army.

Okay. The American side of it. We're talking about 50 officers when we fully resource—a battalion commander, his staff, company commanders, executive officers (XOs), platoon leaders—you can see the breakdown there (**Figure 5**). I think 30 months is just about a minimum we can use in order to build some retain

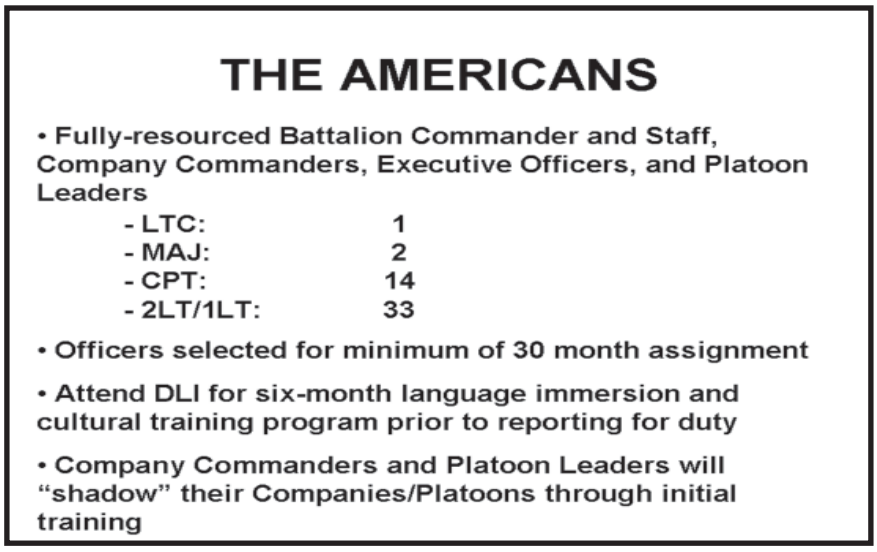


Figure 5

ability into it. Obviously, we could do more, and it would be more optimal, but a minimum of 30 months. The reason for that is I think that they need to get some cultural and language training from DLI (Defense Language Institute). I do speak a little bit of Pashto and a little bit of Dari. I learned it all when I was over there; I didn't learn it beforehand. It was just simply because when I got there, I had an interpreter assigned to me. I don't know how long he's going to live when we're running around out there; I don't know if he's going to quit and run off. So, as a

minimum, I want to know how to be able to say, “Soldier! Move there! Shoot that direction!” So I made sure that I could learn the basics of it. Sort of similar, even though we’re going to have the Afghans operating under the English language concept, there are going to be times when they could also have some PTSD (post traumatic stress disorder) of some kind or combat stress and we want our trainer or officer corps to be able to speak to them directly in English or in their own language if need be. And I thought in the initial concept that the company commanders and platoon leaders would shadow them through their training; sort of build that rapport from the very beginning. Obviously, that’s not probably a requirement, that’s just something that I was thinking.

Why does the US Army want to do this? A lot of reasons, and I am not going to go through all of them, you can read them on the screen there (**Figure 6**). It’s obviously an innovative and creative way to enhance the total force. Its going to support our Afghan allies; it’s going to enhance opportunities for cultural learning; and increase sensitivity—especially if these guys are habitually assigned to,

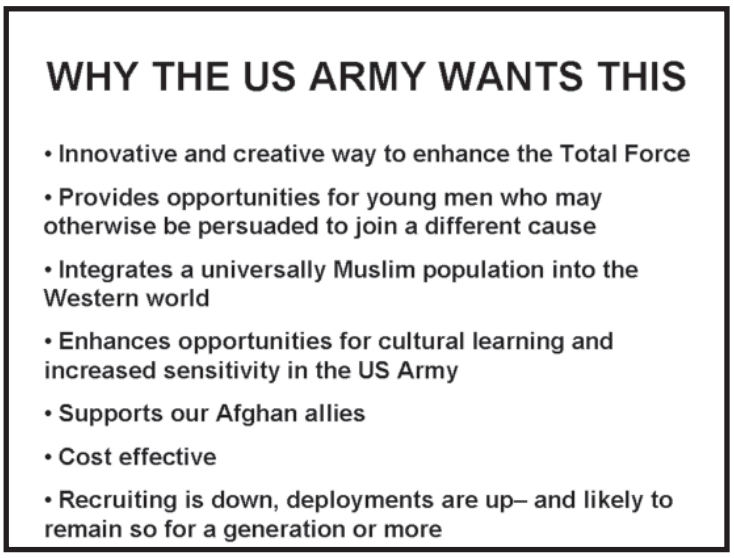


Figure 6

or habitually work with other brigades and Units of Action. It is also cost effective, I’m not going to go into the numbers, but a US soldier makes anywhere between $1300 to $1800 dollars a month and an Afghan soldier in the Afghan National Army makes between $55 to $70 dollars a month. Obviously we’re not going to pay them slave wages, but if we pay them too much then we’re going to take away from the Afghan National Army’s ability to recruit it’s people. So there is going to have be a happy middle somewhere in there in which they’ll be

making. The numbers I'm using, $15,000 dollars, is about the average per month, in base pay of a US infantry squad which is an E-6 Staff Sergeant, two E-5 Sergeants, and around six soldiers ranging in rank from E-1 to E-4. For the Afghans we would be looking at about $4,000 dollars in base pay each month. Finally, the last one, recruiting is down and deployments are up and it's likely to continue this way for at least another generation or so. That being the case, we need to find ways in order to continue to bring ourselves onto the battlefield with the assets and resources that we need.

Okay. Big question: Would the Afghans agree to this? Actually, I was at a meeting with Secretary Rumsfeld. The answer to this can be found, I think, if we look to South Africa and their historical experience (**Figure 7**). In the early '90s, the African National Congress took over and they assumed power, but their group was very tenuous, and it was by no means assured in the long run. You had the

Figure 7

South African Defence Forces (SADF)—probably the best—well, not even probably—the best military forces ever fielded in the continent of Africa itself, and they're mostly intact.

These guys, even the black Africans among them, are very conservative; they're very reactionary. The African National Congress (ANC) is somewhat threatened by the continued existence and presence of these guys within their country. They really get lucky, because Eeben Barlow and Executive Outcomes starts recruiting these guys and taking them on adventures all around the African continent. It's probably the one aspect of Private Military Companies that P.W. Singer, in his seminal book, Corporate Warriors, doesn't really talk about, which

is that there's a reason the South Africans turn a blind eye to these guys going all around Africa and causing disruptive chaos, and that's the fact that—Hey, they're out of South Africa; they don't have to worry about them now. The African National Congress has gotten rid of this core element that could have caused serious problems for their transition to democracy.

So there was a flight from South Africa, and then in 1999, South Africa's regime is now consolidated; the grip on democracy is a lot stronger—they can go ahead and make the decision to ban Private Military Companies, and they do, and Executive Outcomes is forced to close their doors.

Similarly, the Afghan situation (**Figure 8**), you've got between 100,000 and 200,000—when the Taliban fell—a 100,000 and 200,000 Afghans serving under arms for any of these private militia forces. DDR, which is the Japanese-funded United Nations/Government of Afghanistan New Beginnings Program, has suc-

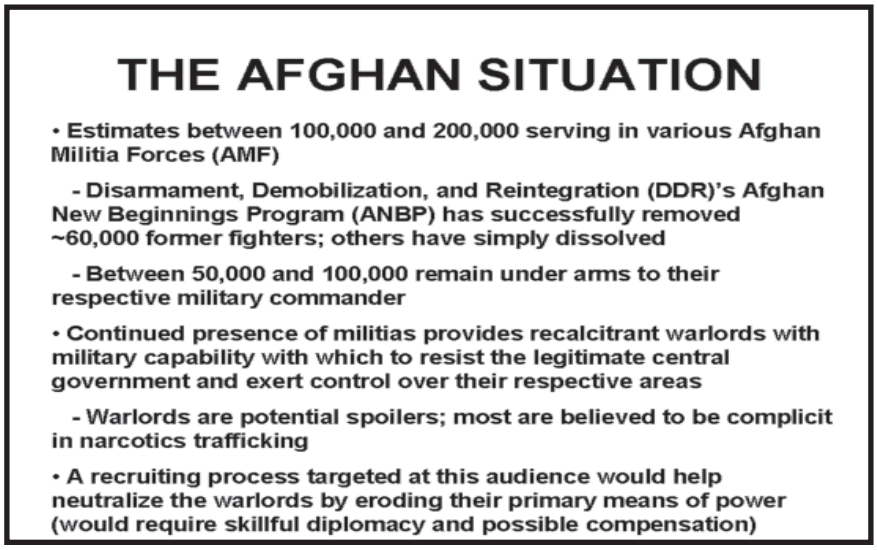


Figure 8

cessfully removed about 60,000 former fighters at this point. Others have just sorted melted away; they've just laid down their own arms and gone away, and we'll never know exactly how many that is.

But estimates right now are between 50,000 and 100,000 guys are still running around under arms. They're working for their respective warlords, their local or regional warlord who, because he's got these guys serving under arms for him, he's bringing some military power to the table, which translates into his political power. That's obviously going to stunt the transition to democracy in Afghanistan.

A lot of these warlords are getting into or are complicity in narcotics trafficking I'm not going to get into the details of that, but as you can see, they're starting to create their own system, a parallel government of their own. Eventually, the Afghan National Army or someone is going to have to remove these guys, or we're going to have to find other ways to neutralize them.

Well, if you target these guys and you're bringing in most of their guys as your recruits for this Afghan Auxiliary Force, they're making it easier for you—if you could take 5,000, 10,000 of these guys immediately out from under their realm. It's going to require some very skillful diplomacy, because these warlords aren't stupid—they're not going to say, "Oh, yeah, this is great—I'm going to lose one of my regiments." You're going to have to actually convince them what you're doing, probably bring Zalmay Khalilzad back from Baghdad, in order to get them to do this.

So, in conclusion, President John Adams once noted that, "I must study politics and war that my sons may have liberty to study mathematics and philosophy. My sons ought to study mathematics and philosophy, geography, national history, naval architecture, navigation, commerce, and agriculture, in order to give their children a right to study painting, poetry, music, architecture, statuary tapestry, and porcelain." In keeping with this tradition, we need to take this young man and turn him into that—a legitimate professional fighter on the battlefield—so that this little boy can become that, which is an educator or a scientist or a doctor. And we do all of that so that this little girl does not become that (**Figure 9**). And that concludes my briefing.

Figure 9

Day 2, Session 2 Question and Answers

Moderated by
LTC Marian Vlasak–Command and General Staff College

LTC Vlasak
Wow, we've had three really interesting takes on the who does what question, and how that feeds into the problems we're facing in the world today. So at this time, I'd like to open the floor up to questions.

Audience Member
Yes, Captain Bran, I congratulate you on an interesting and innovative approach to some manpower. Some questions. I'm somewhat concerned—though it sounds a little bit like what we tried to do in the Phillippines, and succeeded in doing in creating the Phillippine Constabulary, the Phillippine Scouts, to great success—but I'm also concerned with the fact that this sounds a little bit like we tried to do with the MIKE Force in Vietnam, which became an effective strike-and-rescue force, but the farther you took them from their villages and their own milieu, the more ineffective they were, and then they became a combination of Montagnard and Nung mercenaries, but little more than that.

If you remove them from their Afghanistan setting, aren't you forfeiting their language knowledge, their cultural ability to augment what we're doing now in Afghanistan, and putting them in a very alien—maybe a Muslim—but still a very alien environment, where their language skills, their cultural skills won't be of any help to us? They'll have to rely upon Iraqi translators, just as we would. So I can see your solution as a possible augmentation to what we're doing in Afghanistan—perhaps moving them to a different part of Afghanistan to get them away from their militia warlords in their own environment, but still retain their language and cultural abilities for our use. Still, a very interesting idea, and I look forward to more on this.

CPT Bran
Sir, in answer to that, I'd say that currently they're probably more of a problem than they are a solution, in terms of the existence of these AMF—they're called Afghan Militia Forces—that exist about the countryside. So partially, it is to pull them from the ranks of Afghanistan where they're sort of a thorn in the side of the central government. But more importantly, I do think we can follow the model of the French Foreign Legion or the British Ghurkas, or to go even so far as Max Boot's proposed Freedom Legion that he's been talking about, and you have access to this pool of Afghans.

I didn't go into the resettlement part—I had it as a hidden slide. You obviously have to decide are they going to resettled into Afghanistan that part of it, or is there a possibility that they would gain American citizenship through their service? But in any case, I see it more as an opportunity or a way for America to use asymmetric means to improve our capability on the battlefield—not just in Iraq and not just in future Muslim countries, but in Western countries as well, or anywhere else, any kind of humanitarian deployment—any kind of crisis where you would want to deploy them. This is a very deployable force—they're not connected to the American population, obviously, so their deployment is not going to resonate the same as the deployment of myself or Colonel Vlasak.

Audience Member
Thank you.

LTC Vlasak
I see a question from the back of the room. Please move up to the microphone.

Audience Member
Roberto, I would just like to thank you for an extremely interesting talk there. A few points, if I may. The first is I didn't think that Ghurkas only, single-handedly defeated the Argentinean forces. [Laughter] So I have to sort of rap your knuckles for that. [Laughter] But I think, moreover, I mean, this idea of using a Ghurka type force is a wonderful suggestion, and I would suggest you also look, really, to the British response to the Northwest Frontier from about 1919 through to 1947—so after the third Afghan War, through to independence. Because, actually, if you look at how the British did things—and of course, I'm slightly biased; you've found the only Englishman probably in Kansas at the moment. But if you look at how we introduced Khasadars into the tribes to sort of manage themselves, and indeed, recruited both irregulars and scouts, where we had a very small number of British officers—probably the commanding officer, and ops officer, and a couple of company commanders—really running those organizations.

There is a terrific paper out there at the moment, written last year by a most wonderful British officer, called, "British Governments of the Northwest Frontier, 1919-1947: A Blueprint for Contemporary Afghanistan," written by a chap called Major Andrew Rowe, and it's absolutely wonderful—because that's me. [Laughter] [Applause] There are two things I'd probably like to ask you about, or to gain your comments on, really. I think the first is I had great concerns listening to your notion of taking Afghan forces out of Afghanistan, to train them here in America; indeed, before then, we were inserting them into Afghanistan. I'm very keen to hear the rationale behind that. Secondly, you might also wish to talk about considerations of perhaps legitimizing the militia forces themselves and the

warlords. That's quite a novel approach to attacking the problem, but rather than trying to dismantle these people, we know that the great concerns are also trying to give them employment. Really, what are your thoughts on perhaps rationalizing or legitimizing those forces under a central government, but recognizing that Afghanistan itself has never really had a strong central government, and this might be a way of sort of expanding that into the provinces? Thanks very much.

CPT Bran
Yes, sir. In response to your first question, I don't know if they'd necessarily be reinserted back into Afghanistan after their training. I'm saying this should be a long-term, stable force which would exist into the American force structure, just as the British Ghurkas have now for more than a hundred years for the Brits. And the same thing—they may be employed in Afghanistan, but then again, they may not. So I guess the reason I've pulled them out of Afghanistan for their training and to form them is because they're now going to be a component, or an arm of the American political system, and because of that, they need to be in the United States.

Secondly, I would say the part about legitimizing the AMF is actually not a bad idea, and there's a lot of people trying to do it. Some of the recalcitrant warlords, as we're calling them now, are coming in from the cold and they're joining the central government. Ismail Khan is a good example of that—of course, he did it after he was defeated militarily by Amanullah Khan. But what we're seeing is, even the ghostdoms that are coming in and joining the central government, or even Fahim Khan, who was defense minister and first vice president, they are not giving up their militias, because even though they're going to get to join the political process, they still see military power as the key to their success or the key to their strength and their stronghold in their regions—they're not willing to give it up.

Do I think that many of them will see the light and will join the central government? Yes. It's a matter of time before they realize that they can't defeat Kabul, and they can't defeat the coalition, more importantly—they're going to eventually join and make the deal that they need to make. But we can help that. We can expedite that process by taking some of their military guys away from them and employing them towards our means—not necessarily in Afghanistan, but in Iraq, possibly. You know, I'm not going to go into details, but possibly Indonesia, Phillippines—I don't know where the next theater is or not; I'm not in the administration.

LTC Vlasak
I'd like to take another question from this side of the room.

Audience Member
Your idea, Captain, is a good one, but I guess my question or concerns would be that the political aspects of it for the United States and—so, for example, if in a moment of sobriety, you were sitting in front of Ted Kennedy at a Senate hearing, how would you explain and legitimize this before Kennedy and others who would certainly take a negative view of it?

CPT Bran
I think it would be a challenge, to say the least, to create this politically. But the Brits have done it and the French have done it. I think stressing the traditions of other countries is one way of pointing out that many countries have done this over time. Let me first say, as we all know, that we've used ethnic-exclusive units before in the past. You know, *Glory* was a movie about the 52d Massachusetts, I believe; we know about the 442d Nisei Japanese, who were the most decorated unit. We even had a Mormon battalion that fought during the Mexican-American War, which, you know, was not an ethnic-exclusive unit, but certainly had its own exclusive character to it. So I think part of the issue would be to point out that it's already been done in the past, and maybe that's not as radical departure as I'm suggesting; I'm merely saying let's formalize it with this foreign population. So I think it's just the next step in something we've already done before.

LTC Vlasak
I'd like to take one more question.

Audience Member
Hopefully, this will wrap all three of your presentations together—the genocide, contractors, and using auxiliaries. Captain Bran, great presentation, but I was wondering, rather than look at the British example, did you look at the US Army's example of using the Apaches and things of that nature? At one time, to prevent a genocide, because these nations were at risk, we co-opted them, and we used them unstructured. In your case, you talked about a member of a squad kind of wandering where he wanted to go; well, that's their culture. With the Apaches, they didn't form into squads and troops, and perhaps you could do the same thing. Yes, you put American leadership in there, but you allow them to form the way they do.

CPT Bran
Yes, sir. And that would definitely come out. I mean, I think the American squad itself has evolved over the years. Definitely, the American platoons have evolved over the years, and as well based on, okay, well, we don't really need a heavy machine gun or a light machine gun in a mechanized unit, because they're get-

ting their fire support from the Bradley itself. Then we realized, okay, that wasn't very smart, because the Bradley isn't always with the dismounted troops; let's go ahead and give them their machine guns back after all.

Similarly, I think you would see some change in the Afghan structure, based on what we've done. Colonel Reese was the Plans and Design Team for the Afghan National Army, and definitely, the structure that he built is not the structure that's in place today, because we've learned different things and we've had to make some changes to it. So we wouldn't want to blindly adhere to something that may be falling by the wayside, but rather enhance the nature of it.

LTC Vlasak
I'd like to have one parting comment here from Dr. Hennefer.

Dr. Hennefer
As an ancestor of a member of the Mormon battalion, it's interesting to note that after their movement across, out of Missouri—or more specifically, Nauvoo—the training they received going from winter quarters down to eventually San Diego and then back up into the Salt Lake Valley came back to bite the military a little bit when a few years later, Johnson's Army made their push out to commandeer the valley, and they were at, oddly enough, Immigration Canyon, which has a little town called Henefer, Utah, over there, and it caused a lot more problems in the end, because now they had a viable military force.

LTC Vlasak
Well, it does seem, after all, all three of these did fit very well together. I thank you for your time and attention here. We need to kind of stick to the schedule at this point, but I'm sure these gentlemen will be available for any individual questions. Thank you. [Applause]

Personal Observations of Logistics Operations in Kuwait and Iraq

Dr. Robert Darius–Command Historian, US Army Materiel Command

It's an honor for me to be here. Combat Studies Institute (CSI) is a great institution, and Fort Leavenworth is a wonderful place to come; it's like a dream place to come, even if it is once a year. Of course, to be on a panel with such distinguished people—Dr. Shrader himself is a well-known author and one of the best-known logisticians in the field of Army military logistics.

I was trying to see if I can talk him into doing contract work for us on Army Material Command (AMC) history. We have the same problem all the other historians do—we're doing everything but history. To do history, and do it objectively and in-depth, you really need the time, and you need to be less responsive to current needs, which are less history work and more public affairs, and be able to "navalize" and think and write. Unfortunately, many of us don't have the time to do that.

Now I'm not a historian by craft—I'm a political scientist. So I feel more comfortable in the conceptual world than and the world of model building and quantitative analysis than I do in history. But I've learned from great historians like General Brown and others, and so I consider myself a student of history.

With that generic statement, is it a great year to be at CSI? Yes, it is. It is a great forum for exchange of ideas. We've had some wonderful presentations—from General Scales with a worldwide perspective that raises a lot of issues and questions, to General Brown's presentation, which gave a broad history of Army history, and in the context of transformation made us think about, "Are we transforming? Are we changing? Are we modernizing?", and the distinction between those three things. It's always useful to hear other presentations such as the one we heard about the creation of a Ghurka force. Since my father was a tribal leader in Balujistan, I could identify with that. I used to dream about how nice it would be to have a Ghurka expeditionary force for the United States Army—wouldn't that be a great thing? I'm not sure if it's saleable in the context of US domestic politics, but it's certainly thinking outside the box. So there's been a lot for all of us to think about.

I would hope you would allow me to share a little information with you about Army Materiel Command from one of our brochures—I handed out some of them to you. This is advertising for Army Materiel Command—after all, without AMC, you wouldn't have the Blackhawk. You wouldn't have the Avenger. You wouldn't have Meals Ready to Eat. You wouldn't have the Wind-Supported Air Delivery System. You wouldn't have Chinook airlift helicopters. You wouldn't

have all-purpose weapons equipment. You wouldn't have the Stryker—the interim armored vehicle—basically, beans to bullets, a tooth-to-tail ratio; that tooth will not bite without AMC.

At one time, about four or five years ago, the Center for Army-Naval Analysis was talking about "why an AMC." Of course, during General Brown's era at CMH, they were talking privatization of CMH. General Brown did a tremendous job while he was at CMH—I'm proud of his leadership. I think he had probably a lot to do—he may not admit it—he had a lot to do with squelching that idea of privatization—as did the historians. His historians. Army historians who went to the field, and who served, with honor, and they considered themselves emergency essential.

In 2003, when the call came in for a historian to serve in theater at the Army Materiel Command, I volunteered, with pride. The Army is a great institution. A lot of immigrants have made their way through the Army, and became American citizens. I became a citizen before I started working for the Army, but I was honored to be able to start at a great institution at the Army War College in 1975, and I've got 30 years of service, working for the US Army, and I think it's the greatest institution in this country—in terms of its legitimacy, in terms of what it's done in US history, for the nation, in nation building, and in all the other things it's done.

It doesn't mean I cannot look at the US Army critically, or at logistics critically—I can do that; it's all within that family, within the context of we can look at ourselves at a family and be critical about each other. This is a great forum to do that—it's an academic forum—but these comments I'm going to make do not reflect the positions of the Army Materiel Command, or my general, General Griffin, or my lieutenant general, General Hack—these are my own personal observations, and I hope you'll take it in that context.

Again, I'm delighted to come here to this forum—CSI—and I have mentioned some of these things. I'm getting ahead of my own notes. I don't have a formal presentation; I have some notes I prepared here, while I was here. So I hope you'll forgive me for that. I must share my bias with you-—and I already mentioned that it's a family bias—of love for our great Army, and I must add that it is not a blind love; I can and do provide constructive comments and criticisms, when I see a need for that. In that context. I will make this presentation today.

I also want to share with you another point that colors my observations, and that is having to do with my birthplace, which is not in the United States—it is Southeastern Iran, in Balujistan. Having spent my youth in the Middle East, my views are probably different from yours. Our perceptions are based on where we sit, and where we grew up. Having shared these points with you, I will discuss

the role of a deployed historian in theater, with some broad generic observations on logistics, and resulting publications in Army Materiel Command History Program since 2003.

My deployment to Kuwait in February 2003 was not the first one. I was deployed by Army Materiel Command to Miami, Florida—a CONUS humanitarian deployment—during Hurricane Andrew, where the US Army Materiel Command set up a humanitarian relief operation to assist in that humanitarian relief operation.

I spent 37 days collecting documents, conducting oral histories, developing a chronology, collecting situation reports, and other documents. I worked for Major General Arwood. We used to call him, affectionately, "Bulldog Arwood." We called our facility at the airport "Camp Arwood."

This was the first Logistics Support Element (LSE), in a formalized sense, under Army Materiel Command in the CONUS. Most of the people were scared of General Arwood—I wasn't. He had a sign behind his chair that used to say, "Lead, follow, or get the hell out of the way." So I went over there, and I decided, I'm going to follow—I didn't have any problems.

This deployment resulted in a publication by Army Materiel Command Historical Office on Hurricane Andrew. So I sort of cut my teeth by my first deployment for AMC. I found the work—seven days a week, 10 to 14 hours per day—fascinating, and filled with energy. It felt really good to help our own people in need of help, and to work in a joint environment—Army, Coast Guard, FEMA (Federal Emergency Management Agency). Even PEMA—Pennsylvania Emergency Management Agency was there, which was kind of interesting, since I have a great deal of interest in Pennsylvania. On the Army side, the Center for Army Lessons Learned was there, and the Corps of Engineer had a historian there as well.

General Jimmy Ross, one of the people I have a great deal of respect for, one of my former bosses, requested that I go to South Florida, and he saw this as an event which would have an impact on FM 100-5, regarding establishment of a Logistics Support Element Forward in AMC.

Since then, AMC LSE Forward has matured quite a bit, and became the AMC Operations Support Command (OSC), headquartered at Rock Island Arsenal. It was OSC which established the AMC LSE Forward Support in Kuwait—in Camp Doha, and also Camp Arifjan. So when the call came in for a command historian to serve in theater as AMC LSE in Camp Arifjan, Kuwait, it piqued my interest, and after discussing it with my wife, who also worked for Army Materiel Command, and getting her approval, I agreed to volunteer to serve in theater.

General Paul Kern, our commanding general (CG), and Lieutenant General Richard Hack, our deputy commanding general (DCG), who was also dual-hatted as our chief of staff—and he's been the longest dual-hatted DCG and chief of staff in the history of Army Materiel Command—called me and spoke with me, to make sure I'm volunteering—willing to go—and then gave the green light for my deployment.

I went through the Combat Readiness Center (CRC) at Fort McPherson, Georgia, picked up my two sets of uniforms, chemical gear, boots, etc., received some training, and flew from Atlanta to Kuwait. I reported to Brigadier General Vincent Boles, AMC theater commander in Camp Arifjan, Kuwait. I knew Brigadier General Boles when he was a colonel, working for General John Coburn at Headquarters Army Materiel Command, so I felt comfortable going to Kuwait to work for him. He is a great student of history; he's very much interested in history; he wanted to make sure the history of Army Materiel contributions to Operation ENDURING FREEDOM (OEF) will be covered.

Our CG, General Paul Kern, was also deeply interested in capturing the history of OEF, as was General Boles.

General Kern also wanted to capture lessons learned, as did Major General John Dearman, our G3 at AMC.

General Kern wanted me to go to the theater to energize the process. General Dearman was more focused on the lessons learned aspect of it. This was a task coming from our G3, and with support from General Kern. I was willing and anxious to roll up my sleeves and do whatever I could do in both areas, as a one-man team. General Dearman said, "Do you have a format, Bob?" I said, "Sir, there's a CALL format; I plan to use that." When I went in theater, I found that the CALL format was not as friendly as I wanted it to be—and this is not a criticism of CALL for their format; it's more generic. So what I did, I modified that to fit our needs.

At first, I met General Boles, and we had discussions and talked, and I met with a few other people. They were not sure what a historian could do in theater, and they were somewhat reluctant to share their views, but not General Boles—he was pretty open—let alone lessons learned, or to be learned, for the record. So I had to establish credibility with the military civilians and contractors, and I want to say AMC is largely civilian, and we have thousands of contractors in theater as well. So the process of establishing credibility took some time.

While I knew some of them were comfortable with me and willing to talk, I started interviewing them for the record. I found out that establishing trust and credibility was a critical step in working in theater—as it is anywhere, even in

CONUS. I felt being honored to see the great Army Materiel Command's Forward Supplement Element in theater, in support of preparations for war—this was, after all, what AMC was all about: to support the soldier during wartime; to support and sustain our forces, and those of our allies and coalition in theater.

It was kind of unique, since I was not a 20-year-old in theater; I was a gray-haired historian in theater. I thought that that had somewhat of an advantage for me, as it did having come from the region, from the Middle East, and being able to read and write Arabic, and having some rudimentary knowledge of Arabic; and having also been an aerial specialist in the Middle East and North Africa—that didn't hurt either. These aspects of my past helped open some of the doors into the hearts and minds of others deployed with me in theater.

While in theater, I spent most of my time in the war room, reading the traffic, writing my own observations on Non-secure Internet Protocol Router (NIPR) Net, and forwarding them to our G3, with copies shared with our theater commander, General Boles, and with others in theater. I reported my observations pretty much uncensored, and they went to our G3 at Headquarters Army Materiel Command. Some of them went directly to Lieutenant General Hack, our DCG, and some went directly to our commanding general, General Kern. I felt confident and comfortable that these were fairly solid observations, based on my own viewpoint, and based on what I picked up in theater, from others.

Once others in theater read some of my submissions, they, too, opened up and started sharing their views, and then I knew that I was on my way to capture more and more observations in theater. At that stage, I also modified the CALL format, and started passing those out so I could gather additional information.

I ran into other historians in theater, to include several reservists. I established contacts with the military history group that General Brown had center to the theater, headed by an O6—a very capable individual—and I was glad that CMH was present in theater, at Camp Doha—and Camp Doha wasn't that far from Camp Arifjan. I worked closely with our public affairs officer, from Rock Island Arsenal, and with others as well. I think we had a curator there—I'm not sure, General Brown, whether we had one or not; I didn't meet the curator there, but later on, the Army Art Section sent someone as well.

I felt like I was performing an important function for Army Materiel Command, and this was the impression I received from Brigadier General Boles; Lieutenant General Hack and General Kern as well.

Now I'll share with you some of my charts in the role of a deployed historian, in case you cannot read it from a distance, and then I'll respond to any questions after the other presentation is made, and as Dr. Shrader sees fit.

Let me see, I think I can work this out. All right. Personal observations. Let me see, I may have to read some of this for you if you can't—can you read it? Are you sure? Okay. Fine. Then I'll just let you read it, and if you can't read it in the back, please let me know—raise your hands if you can't read in the back—I'll be glad to read any parts of it for you.

The historian does not play an insignificant role, as I see it. We are—we should be—emergency essential, and maybe under the new National Security Personnel System (NSPS), we may become that—AMC is a laboratory for NSPS as well.

Are you ready for the next? I don't want to go too fast; I don't want to go too slow. All right? I followed these up by interviews in theater with the CG and DCG of AMC—I've got about 12 hours with Lieutenant General Hack and about 17 hours with General Kern. I interviewed some other people who returned from theater, and they were in AMC Europe in May of '03, after I left the theater. Then I followed those up with interviews with our depot commanders, and deputy depot commanders in theater as well, to see what they're doing in support of OEF/OIF. The interview with Frank Zardecki has been published, and it shows Tobyhanna Army Depot Support for OEF/OIF.

I interviewed the depot commander at Sierra Army Depot, and also at Red River Army Depot, and we covered other topics as well, other than OEF/OIF, to include Lean and Six Sigma. Army Materiel Command is a metrics organization—we are industrial-based; we want to make sure we improve the processes of production. We want to measure things; we want to reduce variability. We want to increase excellence in that context. We want to be able to surge—the industrial base is critical in this; we work closely with industry.

Documents collection. I had a camera with me. I traveled extensively to seaports of communications, airports of communications, air port of debarkation (APOD) and sea port of debarkation (SPOD)—what we call them.

We had conferences in theater. The US Army Center of Military History has the biennial Conference of Army Historians—we had two panels for that one. I was honored to have General Kern as our keynote speaker.

Equipment we use. Digital video camera, digital picture, voice recorders, laptop. We do our oral histories now both video and audio as well, because we can give a copy of the video directly to the individual we're interviewing—it makes it quick.

Examples. What went right; what went wrong. The basic things we usually have problems with are communication, automation, transportation. We had some other things within the context of AMC LSE—staffing procedures; soldiers

deployed given responsibility for logistics automation systems did not understand the system. Total asset visibility was still not there; was being worked at. We created a new theater distribution command. General Boles saw a need for that—just basically a place in the desert. Everything that came in from seaports and airports went over there and we'd try to go in there and find the stuff. It was the first prepo war—we have a publication on that one—a very successful one. 3d ID was very much interested in the equipment AMC was providing—3d ID, they took our equipment, rather than their own; they were very happy with it. Our Logistics Assistance Representatives (LARs), they are our soldiers—they're our civilian soldiers; they go and fix the tanks and the equipment there in theater, for the soldiers. There were other issues—length of tour, and whether LARs should be armed.

Some of the lessons, our commanders in the theater learned, and they implemented. So I cannot say we do not learn lessons—we do learn lessons. Tactical lessons that are learned are usually changed by the commander in theater. There are other lessons that are strategic that take time. This strategic airlift and sealift, we may not have had it, but now we have it. We are a superpower; we have tremendous strategic sealift and airlift capability—but that is also an Achilles' heel. When you project power 8,000 miles away from CONUS, there's a lot of responsibility—that tooth-to-tail ratio—and it's a very costly operation.

Publications. We have a historian here, I believe, Randy. Mr. Talbot, would you stand up? Mr. Talbot followed me in theater. Would you give him a big hand for me, please. [Applause] Mr. Talbot was followed by George Eaton, who goes to theater once every quarter, to cover history of AMC LSE in theater. We have carried on with it. The "Observations and Potential Lessons Learned," it's about a 200-page manuscript that I'm not privy to release yet. It is not classified, but it's limited distribution—a need-to-know basis only—and that's the way our Headquarters wants it. But the prepo war, that has been published, "It Was a Prepositioned War"—if you'd like a copy of that, we can get it to you. The interview with General Boles was conducted by Randy, and that's been published—we can get you a copy of that; it's on our website.

Thank you very much. [Applause]

Darius Slide Addendum:
Personal Observations of Logistics Operations in Kuwait and Iraq

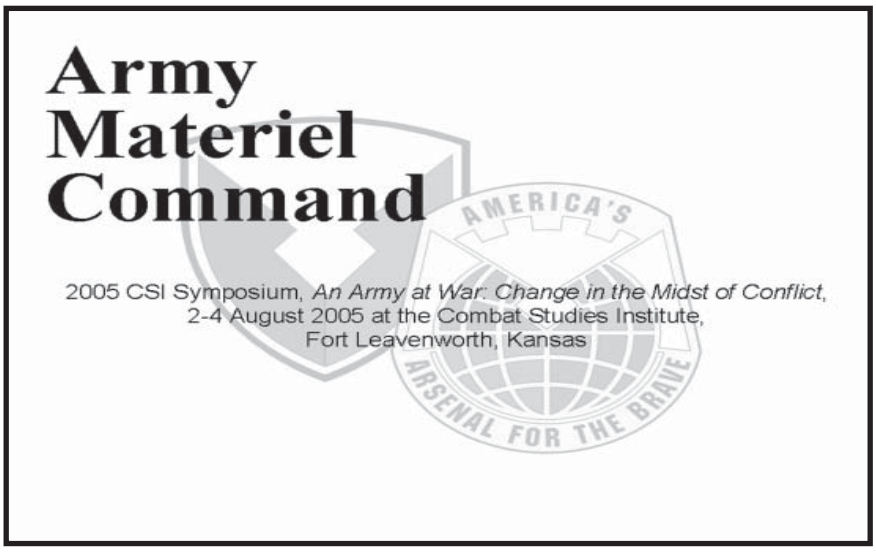


Figure 1

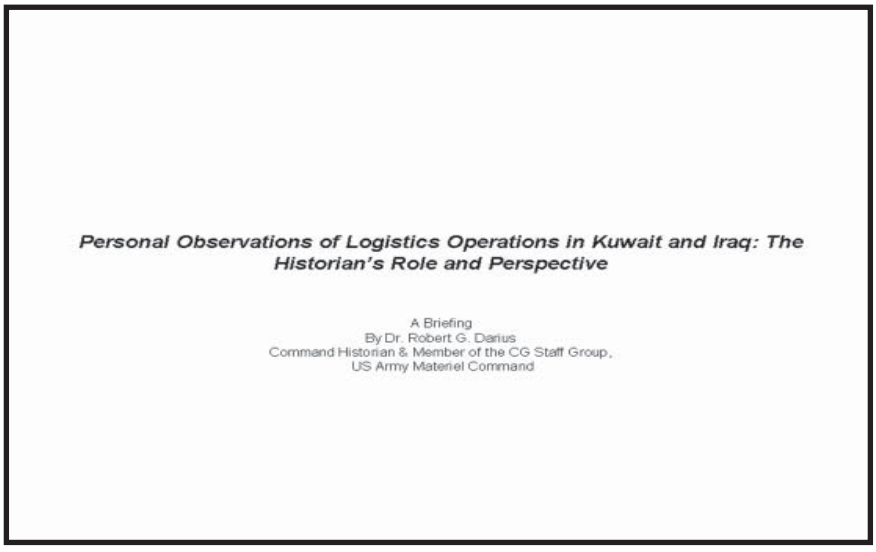


Figure 2

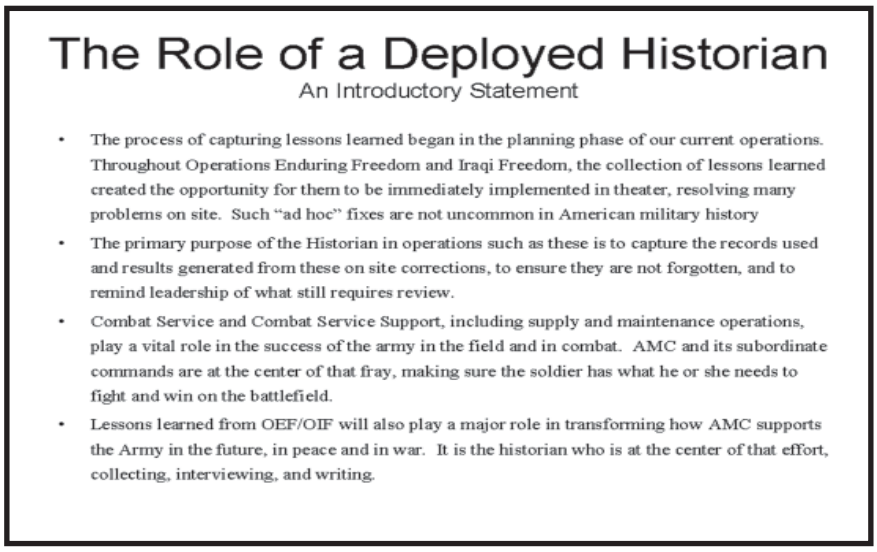


Figure 3

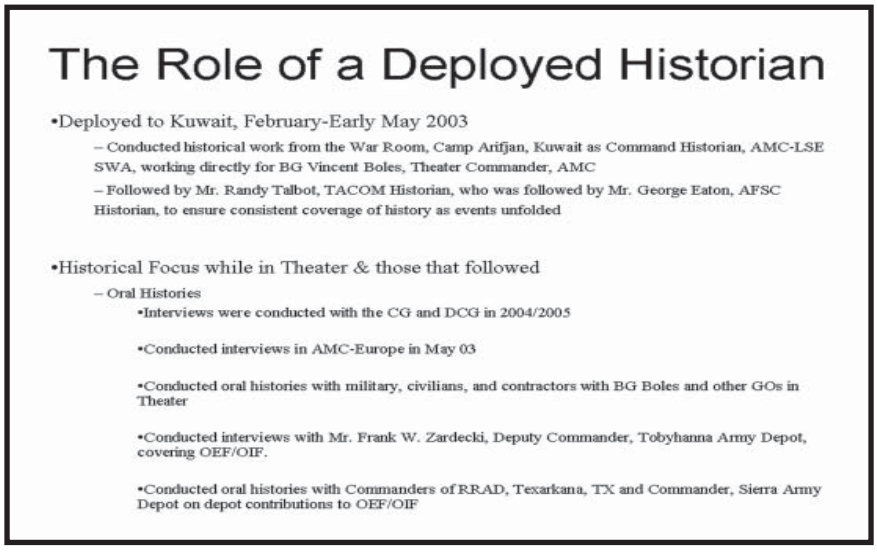


Figure 4

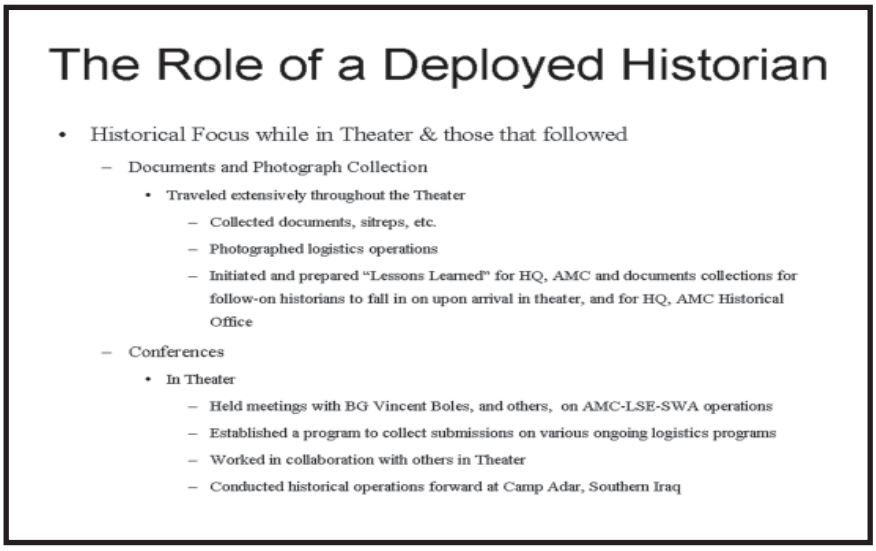


Figure 5

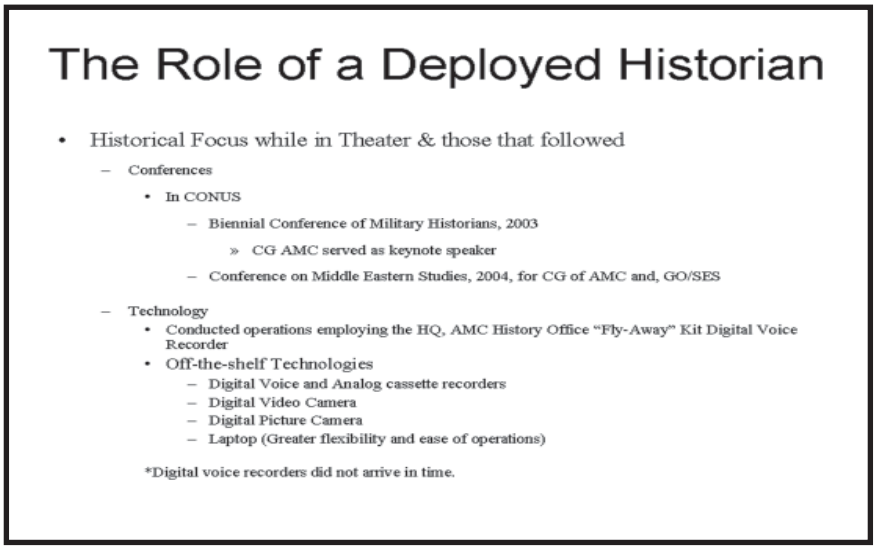


Figure 6

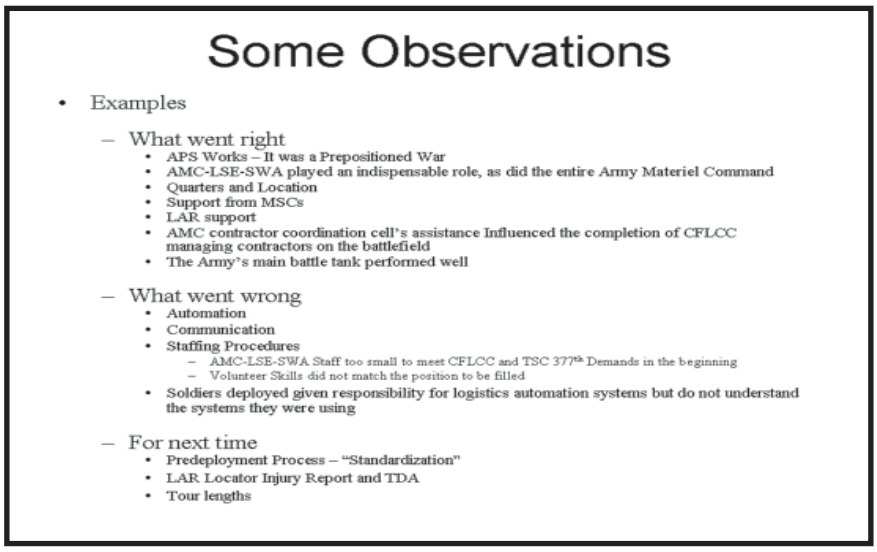


Figure 7

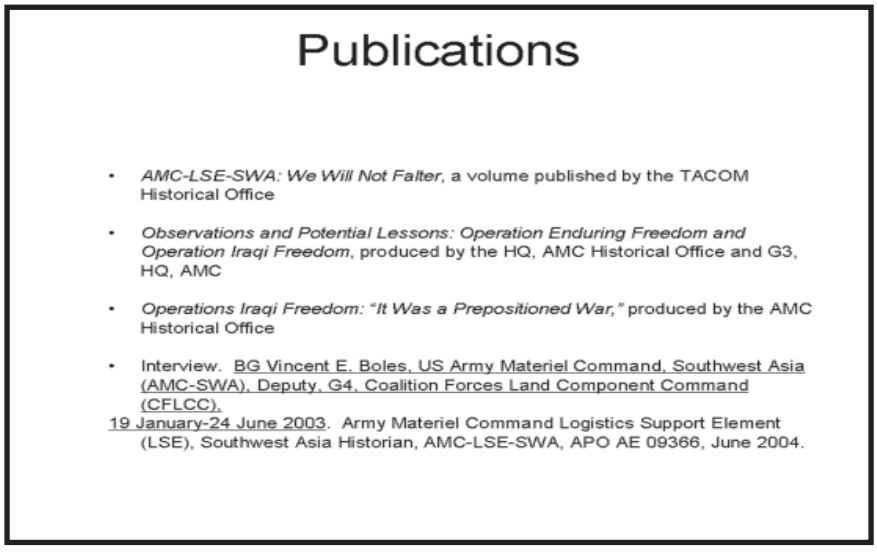


Figure 8

Transformational Logistics: Solution or Shell Game?

Major Guy Jones

The Objective Force white paper declares that the Army must transform to an expeditionary force with a "reduced logistical footprint." Is this possible? Most of the current transformational effort is focused at the strategic and operational levels of improvement. One might argue that the Army is doing nothing that was not done prior to World War II by attempting to reduce a unit's ability to support itself in combat – "not enough trucks, mechanics, fuelers, medics, and more."[1] Because the Army's transformation is focused on the strategic and operational deployment capability, the logistic transformation focus is on the communication zone's lines of communication—not the growing length of the tactical level's lines of communication.

James Huston, a renowned historian, stated, "Whenever shortages of supplies or equipment have appeared at the battle front, from the Revolutionary War to the Korean War, more often than not it has been the result of some shortage in transportation somewhere along the line."[2] Where along the supply line do these shortages occur, and where do the shortages matter the most? The current logistic transformation focus avoids the primary problems of tactical level resupply, which are not easily solved, and merely shifts the sustainment issues "to the far end of the [supply] line."[3] Is the Army focused on a solution that will worsen instead of correct an age old problem, the delivery of logistical requirements to the end user in combat? Traditionally, logistic structure is neglected in peace and is the last structure mobilized in times of conflict. However, the Objective Force focus is not one of logistic neglect but potentially the elimination "a lot of fat, idle, useless support weenies."[4] This paper attempts to determine some of the problems through a selective historical lens that make the last leg, or last 1,000 yards, of the logistical supply chain difficult and to determine whether the Army's logistical transformation accounts for and addresses these problems.

As the Army transforms to Brigade Combat Team (BCT) centric operations, each unit of the BCT must be able to sustain themselves in the contemporary operating environment of noncontiguous battle spaces and extended lines of communication. Efficiency through pooling logistical assets, which is at the heart of our current logistic doctrine, does not directly translate into effectiveness for all brigade combat teams.[5] The Army's current logistic transformation at the tactical level does not effectively fix the problem of the last 1,000 yards of the battlefield, getting the required supplies or resources to the end user. What historically causes the tactical logistical gap? What level needs to be the focus to fix this gap? Has the Army defined the problem correctly to address the gap? Will the logisti-

cal gap be bridged or widened by transformation? These are the focus questions that will be addressed.

What historically causes the tactical logistical gap?

Historically, what has made the last 1,000 yards logistically hard? The easiest answer is to blame this problem on Clausewitzian friction or merely chance as the Army has done countless times before. However, historical examples clearly illustrate the logistic gap's linkage to a lack of transportation, labor forces, and/or materiel handling equipment. While numerous examples exist, only selected historical examples are used for this illustration.[6]

James Huston stated clearly the common cause for the tactical logistic gap in the last 1,000 yards. "In World War I, as in most wars, the chief logistical limitation on the military effort was transportation."[7] The strategic transportation of supplies across the Atlantic Ocean in this conflict was not the limiting factor. Instead, the inland or tactical transportation system could not keep pace with the arrival rate of materiel.[8] Thankfully in one respect, victory prevented this inland shortage potential, which "…involved shortages for everyone concerned – in food supply for the Allied population, in munitions for their armies, and in supplies for the AEF," from reaching a strategic culmination point.[9] However, victory also obscured this critical gap in the logistical system due to a "decline to a slough of indifference" that follows conflict only to be faced again as "a new national emergency should once more call forth the waves of progress."[10]

Similarly in the Pacific Theater of World War II, the tactical gap dealt with inland transportation. However, the logistical supply chain gap occurred on beaches. Transportation planning and resourcing failures at the operational and tactical levels created supply problems on the beaches of Guadalcanal and Okinawa.[11] These failures prevented the supplies, which were brought ashore by naval transports, from reaching the soldiers at the requirement end of the supply chain. Intense manual labor forces, which were generally filled with fighting soldiers, were required to unload supplies from transport ships on the shore and to subsequently reload the same supplies on limited inland transportation assets. In many cases when the beaches and trails could not support vehicles, the inland transportation asset became the fighting soldier instead of mechanized or motorized transport.

On the Western Front of World War II, the unloading capacity at the ports and local transportation beyond the ports, or inland transportation system, were also the greatest logistical problems.[12] One temporary solution to this transportation problem led to the creation of the Red Ball Express. The Red Ball Express was an ad hoc organization that was created to move supplies from the beaches of

Normandy to the culminated units on the German border in World War II. Luckily, the transportation assets in these ad hoc organizations were available in theater. "The trucks used in the Red Ball Express would not have been available had not a truck buildup been occurring in England in preparation for the reopening of the Burma Road in the Pacific theater."[13] Once again, the transportation gap that created difficulties in the last 1,000 yards of the supply chain was not recognized or resolved following World War II.

The Korean War illustrated an even further shift of the inland transportation gap towards the end of the supply chain. Task Force Faith, a composite element of the 7th Infantry Division that operated on the east side of the Chosin Reservoir in 1950, required extensive re-enforcement and resupply to survive. The designated reinforcement battalion was prepared to assist Task Force Faith but was "waiting on transportation from X Corps [7th Infantry Division's higher headquarters] that never arrived."[14] Internal battalion and brigade transportation was not used, because these assets were task organized to support the movement of other units within X Corps. The final result was the destruction of Task Force Faith by the Chinese on December 1, 1950.[15]

Though not fatal, operations in Afghanistan in 2002 by 3d Brigade, 82d Airborne Division also demonstrated the logistical transportation gap that continues to exist. Due to extended distances between battalions and the brigade's Logistic Support Area (LSA), rotary wing assets became the primary means of transportation for both maneuver and sustainment. Air assets, like transportation assets, were too limited to fully support both tactical maneuver operations and required sustainment operations simultaneously. Battalions had limited organic transportation assets that could handle the mass movement of both personnel and equipment. Therefore, host nation trucks were contracted to augment the transportation of supplies and personnel, which were required to accomplish both tactical maneuver and sustainment. This transportation gap did not impact the operational level receipt of supplies into theater or into the brigade LSA, but this gap did impact the ability to conduct tactical maneuver and sustainment operations at the battalion and company levels.

Closely related to the tactical transportation gap illustrated thus far is the lack of a designated labor force.[16] Throughout America's history, a reoccurring problem has been finding soldiers to perform "various service tasks necessary for logistical support."[17] Habitually, the Army measures efficiency through a ratio of combat troops to service troops, which is commonly referred to as the "tooth to tail" ratio. This ratio is meaningless unless the ratio accomplishes the desired effect on the enemy or the established capabilities desired for a future conflict. James Huston eloquently illustrated this point: "If the greatest total of effective

power can be delivered with one combat man for each service man then this is the desired ratio, but if 1,000 service troops for one combat man are needed to achieve that maximum, then that is the desired ration. If it impairs combat effectiveness to maintain a small ratio of service to combat troops then such a ratio is to be avoided rather than sought."[18]

Historically, the "emphasis in war preparation had been directed toward the 'fighting men,' while little attention was given to the ever increasing needs of support forces."[19] Logistic planning immediately preceding World War II in both the Navy and the Army was "grossly inadequate" according to Lieutenant Colonel David Rutenberg of the Air Force Logistics Management Center.[20] At the start of World War II mobilization, "only 11 percent of the Army consisted of service troops, compared to 34 percent at the end of World War I."[21] Compare these historic ratios to modular Army estimates for support troops: "32 percent of the heavy brigade combat team (HBCT) and 29 percent of the infantry brigade combat team (IBCT)."[22]

These modularity ratios would seem adequate, until the increase in logistic support, which is required to match technological advances, is considered. World War II demonstrated the requirement for more support troops to complement the increase in technological innovations such as the "mechanization of combat equipment … [which] leaped forward between the two World Wars."[23] The technical complexity of modular units is incomparable to units of either World War.

The low availability of service troops at the outset of World War II also created a lack of trained service troops for overseas deployment. These "service troops, beyond all others, were required in the early phases of the war. It was imperative that they prepare depots, receive equipment and supplies, and establish the essential services for the combat troops."[24] The lesson learned from Operation BOLERO[25] was the necessity for "pre-shipment" of military materiel in advance of troops. This concept required large quantities of service troops to deploy prior to any combat units. To rectify the labor force problem, combat forces were rotated between service chores and combat functions. James Huston stated that this practice "has always been done as an expedient to meet a necessity of the moment and never as a deliberate policy with the prior planning and training necessary to make it most effective."[26] The troop-to-task requirements and the necessary labor force size were not realized prior to World War I either, because the United States had not embarked on any large force deployment prior to 1917-1918. Therefore, World War I also exemplified the lack of labor forces at ports and forward bases.[27]

Another critical contributing factor to the tactical logistic gap, which is directly linked to both transportation and labor force, is materiel handling equipment.

The industrial revolution at the turn of the 19th century introduced machinery to assist in the manual labor tasks of loading and unloading large volumes of equipment. As the United States began to deploy large volumes of equipment as part of both World Wars, materiel handling equipment became critical at transportation nodes such as ports and railway hubs.

Throughout history, the requirement to hand carry supplies was reduced with the introduction of machinery but has not disappeared.[28] The reduction occurred primarily at the strategic and operational levels of the lines of communication instead at the far end of the logistic chain, the 1,000 yards. Large manual labor forces were still required to hand carry or transfer supplies. During many occasions in both World Wars, manual labor was the only means available to get food, water, and ammunition to units on the front lines. In Korea, the lack of materiel handling equipment at the far end of the supply chain created a "renewed significance with the organization of the Korean Service Corps carrying parties."[29]

Today's military force still must move supplies by hand. Units are not resourced sufficiently with either a labor force or materiel handling equipment to reduce the tactical logistical gap. In Afghanistan, tactical logistic units at both the brigade and battalion level were stretched thin attempting to receive and distribute supplies daily. Units were forced to pool all available labor, no matter what their military occupation specialty, to load and unload the daily sustainment operation trucks, planes, and helicopters. The units that owned materiel handling equipment found the quantities to be insufficient to prevent the need for this pooled labor force.[30] Units that did not own organic materiel handling equipment were forced either to barter with other units to utilize the limited materiel handling equipment assets or to conduct all loading and unloading of supplies by hand with an ad hoc labor force. Neither option was efficient or effective.

So, what has made the last 1,000 yards logistically hard? History clearly points to the factors of transportation, labor forces, and materiel handling equipment at the tactical end of the logistic line of communication. Most people, however, have not recognized that the Army has this problem, so no solutions are actively sought. Some, who have recognized this logistic problem, point toward logistic operations in large, merchandise businesses such as Wal-Mart for potential solutions.[31] However, unlike Wal-Mart, the military's disposition changes rapidly and continuously the closer one approaches the "tip of the spear" or the far end of the supply chain. Therefore, the business solutions have limited application in the Army.[32]

What level needs to be the focus to fix this gap?

In the transformational Army structure, where does this last 1,000 yards reside? Clearly defining the level this logistical gap resides will answer the question of where the Army needs to focus its logistic modularity effort in order to fix the problem. The responsibilities of each unit within the tactical logistic chain offer the key to understanding where the last 1,000 yards or the gap resides. According to the Army Comprehensive Guide to Modularity, only three echelons of Combat Service Support (CSS) units provide sustainment for a deployed Army force. The lowest echelon is the organic support battalions or brigade support battalions (BSB), which support the brigade combat team (BCT). The next echelon is the tactical sustainment brigades, which support UEx organizations. The final echelon is the theater support command (TSC), which supports the total Army, joint, multinational, and interagency forces in the joint force commander's area of operation. The TSC is composed of operational-level sustainment brigades. [33]

Have the roles and responsibilities of each of these levels been clearly defined? The modularity guide provides some delineation of responsibilities but does not clearly define the role of each with respect to the other levels. The theater support command (TSC), the highest echelon of deployed support, executes its responsibilities through operational-level sustainment brigades.[34] The TSC acts as the theater logistic headquarters and provides "obligatory theater support" by operating a theater-level Army logistic base, a Joint logistic base, or an intermediate staging base. The obligatory support includes direct support to Army theater-level assets as well as common-user logistics and general support to other services, other governmental agencies, and coalition partners through a central distribution management center. "The TSC will have full visibility of all services and supplies, current information on force logistics needs, and the ability to direct incoming supplies and materiel to the brigades that need them."[35] This echelon is also responsible for theater opening operations, which include reception, staging, onward movement, and integration (RSOI) for the Army and the Joint force and Army-specific reconstitution operations.[36]

The middle echelon of deployed logistic support falls to the tactical sustainment brigade, which has the same organizational design as the operational-level sustainment brigade. The role of this middle echelon is to "provide distribution-based [replenishment] logistics" to the supporting or assigned elements of a UEx.[37] These brigades are also responsible for establishing temporary bases within the UEx area of operation to conduct mission staging operations (MSO).[38] During these operations, brigade combat teams receive general support maintenance.[39] This is also the echelon responsible for logistically supporting the Army's concept of "plug and play" with all three types of brigades: heavy bri-

gade combat teams (HBCT), stryker brigade combat teams (SBCT), and infantry brigade combat teams (IBCT). This task alone produces major modifications to the sustainment brigade's task organization each time a different type of unit is assigned to or detached from the UEx organization.

Finally, the lowest echelon of deployed logistic support as defined by the modularity guide is the brigade support battalion (BSB). The primary role of the BSB is to act as a logistics support area (LSA) that provides subordinated battalions of a BCT with logistic support for up to 72 hours of continuous operations. This type of logistical support is known as replenishment operations. Unlike the sustainment brigades, this echelon is not responsible for mission staging operations. However, the BSB is responsible for reinforcing medical support with a casualty holding capability and for reinforcing direct support maintenance as required. Depending upon the type of BCT being supported, the BSB is responsible for tactical transportation of maneuver units. When in support of an infantry brigade combat team, the BSB is responsible for the transportation of one battalion of dismounted soldiers.[40] The BSB, like the sustainment brigades, are expandable, which is the capability to accept additional CSS modules based on the forces assigned to the brigade combat team.[41]

Obviously, these three echelons of logistic support are important, but none have the direct responsibility to get the supplies to the end user, whose location and requirements changes rapidly. The BSB is the closest element of the three echelons to the last 1,000 yards, but the majority of its responsibilities involve reception and staging of assets for distribution. Although operating at a tactical level, these units still deal primarily in bulk items. These units are rarely tasked to "push" required supplies to battalions, companies, and platoons on the battlefield.

Are there other logistic echelons below the three defined in the Army Comprehensive Guide to Modularity that are truly responsible for the last 1,000 yards? If so, how can the transformational Army ignore these elements that are so critical to bridging the tactical logistic gap? Below the lowest echelon defined by the modularity guide is an echelon that is know as the field service company (FSC), which directly support the organic battalions of each brigade combat team. The responsibilities of these companies are to provide elements of the battalion with one to two days of supply,[42] to replenish these supplies from the single day of supply maintained by the BSB, to provide mobility assets to support the maneuver plan, and to conduct operator—through direct support—level maintenance for all assigned or attached equipment. These organizations are responsible for both "pushing" and "pulling" assets within the supply chain. The FSC pushes required supplies to companies and potentially platoons. Additionally, the FSC

is responsible for retrieving or "pulling" supplies from the BSB. This is clearly the level responsible for the last 1,000 yards of the logistic chain. The only assets responsible for logistics below the FSC are a few individuals that assist with requisitions, tracking, and distribution management.

It is clear from the lack of focus on the BSB to FSC link that the Army's transformation in the area of logistics is focused primarily at the operational level not at the last 1,000 yards of the tactical level. Major General (Retired) Robert Scales, a current military theorist and author of Yellow Smoke: The Future of Land War for America's Military, stated that the Army's transformation center of gravity, or source of power, is at the tactical not the operational level of refinement. "We have to transform small units to make them as good as we can."[43] If this statement is correct, then logistic systems and capabilities must be designed from the "bottom up." In the modular, BCT-centric force, the bottom is at the company and battalion levels. These are the lowest levels that logistic assets are assembled to execute replenishment operations. If the Army has defined the logistical problem correctly, transformation will ensure these bottom-level logistic organizations are capable of executing their responsibilities effectively.

Has the Army defined the problem correctly to address the logistical gap?

Has the Army defined the logistical problem correctly to address the last 1,000 yard gap? This question revolves around capabilities and assumptions. The starting point of any problem should be a clearly defined end state or result. The end state of transformation is an improved force capability. The desired, specific capabilities of the Army are based on assumptions about the current and future operating environment and on assumptions about the enemy that will pose the next threat.[44] The future operating environment might be similar to the current conflict in Afghanistan and Iraq, or might be in a remote jungle of the world, or even in China. The enemy that poses the next threat could be similar to those faced in Iraq, or might be a conventional force that is supporting the whims of a strong state government. Colonel (Retired) Bob Killebrew, the former director of the Army After Next program, stated that the Army still has a conventional threat to prepare for not just stability and support operations.[45] Regardless of the environment or the threat, the American people expect the Army's costly transformation to enable the force to effectively handle any environment or enemy.

As stated previously, the objective or end state capability of the transformed Army is an expeditionary force with a "reduced logistical footprint." Defense Secretary Donald Rumsfeld repeatedly stated that speed and technology would not only save lives but also "allow smaller, faster forces to combat conventional

foes effectively."[46] Is it possible to reduce the logistical footprint while still bridging the gap that currently exists? Both politicians and senior Army leaders have made several key assumptions that do not support a reduced logistical footprint.

First, the contemporary operating environment is still focused on short duration conflicts.[47] This assumption is not supported by either current operations or history. Reality is proving to be long duration military conflicts and commitments. Brigadier General Dave Fastabend of the Army's Training and Doctrine Command Futures Center observed that our previous model of episodic war has shifted toward protracted war.[48] If protracted war is the norm, then logistic requirements will grow over time to support the enduring conflict and not be reduced. Surely the next conflict can not be won on a "reduced logistical footprint."

At the operational and strategic levels, logistic pre-positioning provides an initial, short duration of supplies. As the conflict wears on and brigade combat teams push further away from or consume the pre-positioned stocks, the units responsible for the 1,000 yards must possess the transportation assets, labor forces, and materiel handling equipment to bridge the tactical supply gap. These required capabilities will only increase the logistical footprint not shrink it.

Other assumptions, which are counter to a reduced logistical footprint, are illustrated in the Army Comprehensive Guide to Modularity's offensive operation vignette for a light brigade combat team (IBCT).[49] The vignette assumed that all elements of the IBCT were topped-off with two days of supply prior to the execution of the operation and that the operation would be less than 72 hours in duration. These assumptions reflect the best case scenario, because the sustainment brigade and the brigade support battalion would not be required to perform replenishment operations.[50] However, few operations are ever conducted under ideal conditions. Another assumption of the prevalence of "ideal conditions" was that aviation assets would be available for and capable of delivering supplies to forward units of the IBCT. These types of replenishment operations brief well, but ignored the fact that a labor force, a knowledgeable skill, must construct the pre-positioned packages at "the forward base of support" prior to or during the operations.[51] This oversight might appear "minor" in planning. However, bad assumptions have cost lives, because support or the right, configured support was not available when required. Similarly, casualty planning or evacuation was not discussed.[52] Casualty operations are other logistic unit tasks that add significant friction to the last 1,000 yards of the logistic system.

The final assumption made in the modularity guide that is counter to the reduced footprint capability is all assets of an IBCT must be rotary-wing transportable. The modularity guide clearly states that an IBCT's focus mode of tactical trans-

portation is rotary-wing assets, either CH-47 or UH-60. “Ideally, there should be no organic equipment in the IBCT that cannot be transported by CH-47, and no mission essential equipment in rifle companies that cannot be transported by UH-60.”[53] This desired capability assumes that rotary-wing assets will always be available to an IBCT for both maneuver and logistics. Even the legacy force brigades of the 101st Airborne Division, which were habitually task organized with an entire assault aviation battalion, did not validate this capability assumption. This assumption requires a smaller haul capability to meet the size and weight criteria of rotary-wing assets. The haul capability is directly proportional to the number of assets required.[54]

Besides a reduced logistical footprint capability, the Army desires the capability to cross attach or “plug and play” with different types of brigade combat teams (BCTs). Units must be capable of plugging into a UEx organization and playing with the other types of BCTs assigned to the respective UEx headquarters. This “plug and play” capability meets Rumsfeld’s vision of a smaller, faster, more deployable force. How does this capability impact the desire for a smaller logistical support structure or footprint?

According the modularity guide, the ideal employment of the three types of BCTs would be in concert or one of each type under a single UEx organization.[55] This method of maneuver force employment provides the UEx commander with the flexibility to maximize friendly capabilities against enemy vulnerabilities. Once again, this type of employment is ideal, not reality. There is not enough of each type to allocate one of each to every UEx or even against every threat faced by the nation. The modular sustainment brigades that are designed to support the various BCTs of a UEx must be structured differently with various subordinate elements depending upon the supported types and numbers of the BCTs. For example, each Stryker Brigade Combat Team (SBCT) is not logistically self-sufficient with the single brigade support battalion that is organically assigned. Each SBCT requires an additional combat service support battalion from the sustainment brigade to function on par with the heavy brigade combat teams (HBCT). The HBCTs have sufficient assets at the brigade and battalion level to actually be logistically self-sufficient.[56] However, infantry brigade combat teams (IBCTs) or light forces may appear to be self-sufficient, but they do not organically own enough transportation assets to move all assigned equipment and personnel at the same time. IBCTs depend heavily on pooled resources from either the sustainment brigade or the aviation brigade. Based on the different logistic support requirements from each type of BCT, each sustainment brigade will be forced to expand or shrink with each task organization change or based on the type of BCTs assigned. A sustainment brigade that supports three SBCTs or three IBCTs would have a rather large logistic footprint.

The final desired capability that significantly impacts logistics is "a distribution-based, highly automated and better-integrated system that will facilitate expeditionary operations."[57] How can the Army raise the dispersion capability while reducing the support structure or the logistic footprint? Technology and automation can reduce some tracking and asset visibility problems at the strategic and operational levels of the logistic chain, but it is not the computer or data packet that physically loads, moves, separates, or delivers the physical part or materiel to the end user. These actions require transportation assets, labor forces, and materiel handling equipment.

What about "pooling" these assets? Is this a valid answer to meet the desired increase in dispersion while reducing the logistic footprint? The Army's transition to the triangular division prior to World War II demonstrated that "pooling" was not as effective as it mistakenly appeared to be efficient.[58] Ad hoc organizations were created to bridge the asset gaps created by pooling.[59] Sharing assets is a valid alternative in emergency situations, but the Army should be wary of being reliant upon pooled assets to meet its steady-state capability instead of an emergency driven capability. If units operate continuously under ad hoc or emergency situations, then what happens during a real asset emergency? Pooling does not create redundancy, flexibility, or effectiveness, unless units have enough organic assets to fulfill assigned capabilities. Pooled resources should be used solely as backups or replacements to meet the needs of an emergency situation.

Besides faulty capabilities and assumptions, other issues prevent the Army as an institution from correctly defining the tactical logistic problem, which contributes to the difficulty of bridging the gap in the last 1,000 yards of the logistic chain. In the majority of training exercises, logistic units are not the primary training audience, so artificiality is accepted and almost required to prevent logistic problems from negatively impacting the primary training audience, the maneuver forces. The tactical logistic problem is trained around and not worked through under realistic conditions.

Another indicator of the Army's failure to correctly identify the logistic gap, which is often wishfully assumed away, is the lack of focus on the complexities associated with extended lines of communications. Throughout history, the US Army has been an expeditionary force. Inherently, this requires long lines of communications both in and out of the theater of operation.[60] Despite the known requirement to deal with extended lines of communications, light forces are not resourced with the appropriate transportation assets, labor forces, and materiel handling equipment to effectively conduct replenishment operations in all weather conditions and terrain. The last 1,000 yards lies at the far end of these extended lines of communications.[61]

From the limited perspective presented in this section, either the Army has not identified the correct logistic problem being faced, or it made flawed or ideal assumptions to negate the severity of the logistic gap contained in the 1,000 yards of the supply chain. To correctly address the logistic gap, the Army must clearly establish the desired, minimum capabilities of all elements of the BCTs. These capabilities will define the end state of transformation in terms of effectiveness. Once the overall capabilities are defined, a logistic support structure must be designed from the bottom-up to facilitate the achievement of the desired capabilities. This method of design will bridge the growing gap at the far end of the tactical supply chain and will result in an effective distribution network. Since there is an inverse relationship between effectiveness and efficiency, the Army should not blindly accept the concept of "lighter" or "smaller" is necessarily better in terms of achieving the desired capability.[62]

Will the logistical gap be bridged or widened by transformation?

Will the new logistic transformation structure fix or expand our tactical logistic gap? Is the Army just creating more Clausewitzian fog and friction with the modularity design in terms of last 1,000 yards of the supply chain? Logistic resources have been and always will be a critical factor in all conflicts. These resources are rightly viewed as a military center of gravity. Hence, logistic resources must be employed correctly to achieve effectiveness, or military forces will reach or exceed their internal culmination point.[63] While the transformational focus on velocity management and network-centric operations may produce resources of plenty at the strategic end of the logistic chain, the logistic resources at the other end of the supply chain are limited by the Army's capability to deliver the products to the required user not to some stockpile at the port of debarkation. James Huston clarified this point, "Since all logistical resources are limited, every decision … has implications for other areas or other activities or projects. Logistical factors always have to be regarded as relative."[64] According to the Army's focus, the relative areas of transformation that may hold the key to the logistic gap closure are transportation, the expeditionary structure, and technology innovations.

Transformation from a division-centric Army to a brigade-centric Army has inherently expanded the allocated battle space of all tactical organizations. This battle space expansion also increased the length of the lines of communication, not only laterally between units but also vertically between command and support echelons. However, has transformation increased the required transportation assets at each level to deal effectively with these ever expanding distances? The answer is emphatically no. Brigade support battalions (BSBs) can not physically move all their organic personnel and equipment at one time with only internal

transportation assets. The internal BSB transportation assets are the same assets that Army Comprehensive Guide to Modularity assumes are available to perform tactical maneuver transport of infantry soldiers for a single battalion of an infantry brigade combat team (IBCT).

Without organic or even dedicated "pooled" transportation assets, can IBCTs really fulfill their advertised "modular" capability in this larger assigned battle space? One proposed ad hoc solution to the lack of mobility for both maneuver and logistic tasks at battalion level and below is the addition of the Light Utility Mobility Enhancement System (LUMES). The LUMES is a "small and inexpensive all terrain vehicle" designed "to carry loads beyond the 50 pounds per soldier [individual maximum combat load], at least for part of the mission."[65] If these vehicles are similar to the currently fielded John Deer Gators, then its speed restrictions prevent self-deployment in conjunction with other forms of motor transport. Therefore, these new mobility assets require additional motor transport to deliver them to the battle front. Additionally, the LUMES increases the amount of fuel that is required to be moved over the last 1,000 yards of the logistic chain.[66] When these vehicles are not being employed tactically for some reason or another, the vehicles become like most other deployed equipment or containers. They are given to the respective unit's headquarters company or to the field support company (FSC) for accountability until the tactical situation once again requires these assets. The LUMES are additional equipment that only compounds the BSBs' problem of conducting single lift movements, unless additional transportations assets are provided to transport all the required equipment and personnel correctly.

The LUMES provide some means of bridging the last 1,000 yard logistic gap. This equipment definitely makes the strategic deployment easier with respect to its weight and size in lieu of resourcing units with larger transportation assets that have the required capabilities of operational range, haul capacity, and speed to make units effective. "Lighter" equipment or forces might make the strategic deployment requirement of transformation easier, but "lighter" does not necessarily meet the required capability to survive and win on the battlefield. Once again, efficiency in strategic deployment does not equal effective logistic operations at the point of the spear.

The objective of a rapidly deployed military force is victory not just at the tactical level but at the operational and strategic levels. The keys to victory at the operational and strategic levels are to exploit success and to maintain the initiative through pursuit operations. Transportation is critical to both of these operations not only in terms of maneuver but in terms of logistics. James Huston stated, "One great weakness of logistics has been a failure of transportation for

the support of the exploitation and pursuit phases of an action."[67] If supplies are not readily available at the far end of the logistic chain or the transportation assets are not sufficient to handle the rapid extension of the lines of communication during pursuits and exploitations, then the capability to rapidly secure operational and strategic victory, as Secretary Rumsfeld desires, is not possible. This was true for Hodges and Patton in 1944.

In that situation, planning had not anticipated Hodges' and Patton's rapid advance against Germany, and the Allied forces were not logistically postured to take advantage of this success. The inability to deliver the massive amounts of supplies from the beaches to the rapidly advancing units caused units to reach their culmination point and loose the initiative. A similar situation occurred in the advance to Baghdad in Operation Iraqi Freedom. In this situation, V Corps literally out ran its logistic tail and was forced to take an operational pause. Transformation has not resourced the modular, BCT-centric force with respect to transportation to effectively conduct exploitation and pursuit operations. The Army is in the same place it was during World War II with a complete reliance on the efficiency of "pooled" transportation assets for both maneuver and logistics.

The second relative areas of transformation that may hold the key to closing or widening the logistic gap is the expeditionary structure. As stated previously, the end state of transformation is an expeditionary force, which according to the Secretary of Defense means a small, faster force that "can do more with less thanks to technological advances."[68] Technology may allow some areas of the force to do more with less, but normally this is not true for logistics.[69]

Logistic units have been, and will continue to be, a larger consumer of strategic and theater transportation than combat units. The emergence of non-contiguous environments with the modular force will only continue to drive this inverse relationship between combat units and logistic units. Therefore, it is logical to assume that logistic units will consume even more transportation assets to achieve the Army's transformation end state. If this logic is true, how can the Army simultaneously achieve the end state of both an expeditionary structure and a reduced logistic footprint? One method that might be used to achieve both of these requirements simultaneously is to play a shell game.[70] If equipment and personnel that are required to obtain a unit's full capability are reduced to make the unit "rapidly deployable" or expeditionary, then an increase in the total number of units to accomplish the same previous capability would be required to offset the internal unit reductions. Is this not the case with the logistic structure of the Stryker brigade combat team (SBCT) transformation? The organic brigade support battalion (BSB) of an SBCT requires the support of an additional combat service support battalion from a sustainment brigade to enable the SBCT to func-

tion self-sufficiently on the battlefield.[71] These potential shell games of transformation do not shrink in any way the ever growing logistic gap.

The Army has also focused on pooled resources as a solution to achieve the desired expeditionary structure. The historical perspective of pooling has already been discussed, and it was clearly established that pooling may achieve so-called efficiency but not effectiveness. Pooled assets are only efficient until their use is required continuously. If pooled assets are used continuously, maintenance requirements for the equipment will exponentially increase. Additionally, the equipment's "life span" will be dramatically reduced. These two second order effects of pooling will result in an increase of personnel to maintain and operate the pooled equipment as well as an increase of requirements on the supply system for parts and new equipment. These effects do not support either a smaller, expeditionary structure or a decrease in the logistic gap.

The over-use of, or inability to maintain, pooled equipment are indicators that subordinate organizations are not effectively resourced. Infantry brigade combat teams (IBCTs) are not effectively resourced for both logistic and maneuver transport. However, according to the modularity guide "almost every operation will require some, if not all, of the infantry in the IBCT to move by truck."[72] Pooled transportation within the IBCT as well as the sustainment brigade will quickly become not only inefficient but ineffective. With a decrease in transportation assets due to maintenance, the ability of units to move supplies over the 1,000 yards will become non-existent without creating some type of ad hoc organization like the Red Ball Express.[73] Clearly, the expeditionary structure of transformation expands the logistic gap instead of bridging it.

The final relative areas of transformation that may hold the key to closing or widening the logistic gap is technology innovations. This area of transformation, according to the Army G4 and other senior Army leaders, has the most potential to allow military forces to gain significant asymmetric capabilities.[74] These asymmetric capabilities are the genesis of how a smaller force "can do more with less."[75] Technology, however, has a direct proportional relationship to logistic requirements.

Tooth to tail ratios historically expand with the introduction of technology. The Russian commander in the Russo-Japanese War made the following observation about technology and logistics: "A much larger number of engineer troops, including sappers, telegraph and railway units, than we had available in Manchuria is necessary, in order that all this technical equipment may be used to the best advantage."[76] Similarly, the introduction of the railroad during the Civil War caused the Army's logistic organization to rapidly expand. The same was true with the introduction of motor vehicles prior to World War II. New types of skills

and equipment were needed to maintain the equipment, and more labor forces were needed to handle the increase in types and quantities of supplies, which were required to support the new technology. Logically, an increase in demand for supplies leads to an increase in transportation requirements to move the requisitioned materiel. An increase in transportation leads to a further increase in personnel and equipment. These second and third order effects of technology advances recreate the problem in tactical logistics that was experienced in the Civil War with wagons and fodder.[77] If the requirement for one is increased, the requirement for the other is also increased. Together, these increases create a vicious cycle of growth. The key to breaking this vicious cycle of technology interdependence is finding balance between gained capability and new support requirements.

Transformation that is based on large technology improvements results in large logistic requirements, but the Army has restricted this natural and required logistic growth with the adopted end state of a reduced logistic footprint.[78] Technology based concepts such as velocity management and network centric operations, which enable total asset visibility and management, may improve the effectiveness of operations within the stationary industrial base and overall communication zone. However, information management and asset visibility will not reduce the requirement to transport supplies and materiel to the far end of the supply chain. In order to get these supplies across the last 1,000 yard logistic gap, the Army requires effective transportation, labor forces, and materiel handling equipment.

Transformation has yet to bridge the tactical logistic gap in the related areas of transportation, expeditionary structure, and technology innovations. Since logistic resources are the military's center of gravity, this logistic gap will continue to cause the Army to culminate prior to achieving rapid strategic and operational success. Unless the transformation effort is refocused on the right problem with realistic assumptions, the Army's transformation will result in peril not in an effective fighting force.[79]

The Army is seeking a revolution in military affairs through transformation to exponentially expand the current military overmatch of the United States Army's ground forces. Correctly done, this transformation would prevent other world powers from maintaining pace with respect to military force development. However, General Dennis Reimer, former Chief of Staff of the Army, stated "that there cannot be a revolution in military affairs without there first being a revolution in military logistics."[80]

The Army's current logistic transformation at the tactical level does not effectively fix the problem of the last 1,000 yards of the battlefield, getting the

required supplies or resources to the end user. Therefore, it is doubtful that a revolution in the tactical logistic system has been planned or accomplished. The evidence for this statement lies in the fact that the Army has not historically recognized the dependence of the tactical logistic problem on transportation, labor forces, and materiel handling equipment. Additionally, the institution has not recognized the fact that the tactical level holds the key to transformation objectives and goals, which should be the closure of the last 1,000 yard gap. As currently drafted, transformational capability and assumptions are incomplete and flawed. They focus on efficiency over effectiveness, which are inversely proportional objectives, under ideal instead of realistic conditions. With the current transformational objectives of a smaller, more mobile combat force and a reduced logistic footprint, modularity will not span the gap of the last 1,000 yards when viewed from the relative areas of transportation, expeditionary structure, and technology advances.

Transformation is a valid concept and is necessary for the United States military to remain relevant in the contemporary operating environment. However, the Army must rapidly recognize the significance of the tactical logistic gap and implement a solution prior to what James Huston calls the "decline to a slough of indifference" that follows conflict.[81] Failure to bridge the tactical logistic gap and to accept the reality of the requirement to expand the logistic footprint in modern warfare will only lead to peril according to Charles Shrader, a recognized logistics historian.[82] The military cannot afford to sit idle waiting for the next conflict to surface, so the logistic problems can once more be realized and potentially corrected with valid solutions.

Redundancy is a valid and time proven characteristic of successful logistic chains. However, redundancy under the current transformation model does not achieve the desired efficiency. What about a focus on effectiveness instead of efficiency? "Dispersion may be more costly … but will contribute a great deal … in terms of long term preparedness."[83] The tactical logistics structure that supports the last 1,000 yards can not be ignored or marginalized anymore. The logistical challenges of the contemporary operating environment will only continue to increase as adversaries reverse asymmetry in their favor. Once again, James Huston's discussion of the Army's logistic challenges are still best expressed in his conclusion to The Sinews of War:

> *But the Army cannot rest on past laurels in logistics. The complexity of modern weapons is multiplying, the geographical areas of possible conflict are expanding, and the need for economy in the national defense continues. Recognizing that the United States is at the apex of defense of the free world, and*

acknowledging the success of potential enemies in the improving their own military capabilities, the challenges to Army logistics today are even greater than challenges of the past.[84]

Notes

1 Steven Eden, "What They Don't Teach You at Leavenworth," *Army Magazine*, July 2003, http://www.ausa.org/www/armymag.nsf on 5/19/05.

2 James A. Huston, The Sinews of War (Washington: Chief of Military History, United States Army, 1966), 699.

3 Huston, 670.

4 Eden

5 Frederick W. Kagan, US Military Academy at West Point, stated that there is an inverse relationship between efficiency and effectiveness during the recent AEI Conference on the Future of the United State Army in Washington, DC. [see Rich Dunn, Rich Dunn's Circulating Notes, notes from American Enterprise Institute for Public Policy Research (AEI) Conference on the Future of the United State Army, Washington, DC, 11 April 2005, http://www.thedonovan.com/archives/historystuff/AEI_Future_of_the_Army_Conf_Dunns_Notes_4_11_05.pdf on 5/20/05.]

6 The best sources of other logistic historical examples are James Huston's *The Sinews of War: Army Logistics 1775-1953* and Charles Shrader's *United States Army Logistics 1775-1992.*

7 Huston, 354.

8 Ibid., 354.

9 Ibid., 355.

10 Ibid., 252.

11 Recommend Charles R. Anderson's *Guadalcanal*[The US Army Campaigns of World War II, Center of Military History (CMH) Publication 72-78. Washington, DC: US Army Center of Military History, undated] For further study on Guadalcanal, and for further study on Okinawa, recommend Arnold G. Fisch's *Ryukyus* [The US Army Campaigns of World War II, Center of Military History (CMH) Publication 72-35. Washington, DC: US Army Center of Military History, undated].

12 Huston, 673.

13 David C. Rutenberg and Jane S. Allen, eds., *The Logistics of Waging War* (Gunter Aiur Force Station: Air Force Logistics Management Center, 1983), 89.

14 Russell A. Gugeler, *Combat Actions in Korea* (Washington, DC: Center of Military History, [no date]), Chapter 6, "Chosin Reservoir," pages 62-87, in US Army Command and General Staff College, *Leadership at the Brigade and Battalion Level Advance Sheets and Readings Book* (Fort Leavenworth, Kansas: United States Army Command and

General Staff College, September 2004), 125-141. http://www.army.mil/cmh-pg/books/korea/30-2/30-2_6.htm on 05/16/05.

15 This is an illustration of how "pooled" assets such as transportation are only effective until all supported units require the assets at the same time. "Pooling may be efficient to some bean counters or economists who only watch the bottom line monetary savings, but it is not always effective in a fluid battlefield where requirements cannot always be projected with complete accuracy.

16 This problem has been the source of questions concerning the number of men needed; of whether soldiers can be replaced by contractors to gain economic efficiency; the extent to which local labor should be used in foreign countries; of whether sufficient combat forces can be detailed to perform the required functions temporarily; of the training soldiers or civilians need to accomplish these logistic tasks; and of unit or individual morale.

17 Huston, 674.

18 Huston, 674.

19 Rutenberg, 84.

20 Ibid., 83.

21 Ibid., 83.

22 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 10-9.

23 Rutenberg, 83.

24 Rutenberg, 83.

25 Operation BOLERO was the name given to the United States' build-up in United Kingdom in preparation for Operation OVERLORD in 1944.

26 Huston, 676-677.

27 Ibid., 387.

28 Huston, 670.

29 Ibid., 670.

30 Beside the assigned quantity being insufficient, maintenance problems reduced the available materiel handling equipment even further. Another contributing factor to the available quantities of materiel handling equipment was the non-contiguous environment. In a non-contiguous environment, authorized equipment must be apportioned between multiple sites. These were the author's observations of elements assigned to TF Panther in 2002-2003 during combat operations in Afghanistan.

31 Major Paul Herbert in *Deciding What Has to Be Done: General William E. DePuy* and the 1976 Edition of *FM 100-5, Operations* clearly stated why the Army is not and

will never be like commercial businesses. “The US Army’s problem is different because it has little margin for error and no definite criteria for success prior to actual combat.” This quote can be found on page 4 of Major Herbert’s book.

32 The tactical disposition of units is not restricted to its mere location. A unit’s tactical disposition may include a rapid change in types and quantities of supplies required. It is almost impossible to predict requirements in the contemporary operating environment, because the enemy gets a vote in the tactical situation with out any requirement to consult with friendly forces.

33 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 5-78.

34 Operational-level sustainment bridges and tactical-level sustainment brigades are identical with respect to organizational design. The only distinguishing attributes between these organizations are the subordinate battalions and companies attached for operations and the assigned responsibilities. Both levels can perform the functions of the other, as long as the required battalions and companies are assigned.

35 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 1-69.

36 Ibid., 3-24, 4-18, 5-88.

37 Ibid., 5-80.

38 Mission staging operations are deliberately planned operations to rotate brigade combat teams out of current operations to conduct refit, rearm, and replenishment operations. These operations for a single brigade normally require 24 to 72 hours. For more information, see paragraph 5-86 of the *Army Comprehensive Guide to Modularity*.

39 The Army Maintenance System consists of five levels of repair: operators, organizational, direct support, general support, and depot levels. Sustainment brigades are responsible for general support level, which consists of major component part rebuilds. The BSB is responsible for some direct support repairs, but the field support companies have the primary responsibility for direct support down to operator level of the Army Maintenance System.

40 To accomplish this transportation requirement, all the organic transportation assets of both the BSB and the field support company must be used according to paragraph 9-8 of the Army Comprehensive Guide to Modularity. To lift all the fighting soldiers of an infantry brigade combat team, all the transportation assets of the BSB and the FSCs will be used with an additional 24 trucks from the supporting sustainment brigade. This clearly indicates that IBCTs are not logistical self sufficient.

41 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 5-79.

42 Each company normally maintains one day of supply or maybe two depending upon the situation and the type of brigade combat team. The FSC will normally maintain

one day of supply, therefore giving it the ability to provide immediate replenishment to companies. The BSB also maintains enough materiel to provide an additional day of supply for each battalion within the brigade combat team. Together, these three levels provide the BCT with the ability to conduct 72 hours of operations without drawing supplies from the supporting tactical sustainment brigade.

43 Dunn.

44 Capabilities and assumptions about the future threat are the basis for doctrine. A great discussion concerning the evolution of doctrine is found in Major Paul Herbert in Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations.

45 Dunn.

46 Greg Jaffe, "Rumsfeld's Push For Speed Fuels Pentagon Dissent," *Wall Street Journal*, 16 May 2005, p 1. https://www.us.army.mil/suite/earlybird/May2005/e20050516368688.html on 5/17/05.

47 John D. Millett, "Logistics and Modern War," *Military Affairs* 9, no. 3 (Fall 1945):193-207 reprinted in Charles R. Shrader, ed., United States Army Logistics, 1775-1992: An Anthology, vol. I (Honolulu: University of the Pacific, 2001), 38.

48 Dunn.

49 In this vignette, sustainment operations are only addressed in the last paragraph under the heading of "transition". This provides a clear indication that logistic operations are an after thought versus an integrated part of tactical modularity development. The referenced vignette is contained in chapter 9 of the *Army Comprehensive Guide to Modularity*.

50 The modularity guide further assumes that the contemporary operating environment will support replenishment operations to occur one company at a time. Rarely can a cycle be created during continuous operations to replace one company with another while the withdrawn company is resupplied. This type of replenishment rotation assumes all units will not require replenishment at the same time. Only a "piece-meal" employment of force will result in this type of cycle luxury.

51 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 9-58.

52 The modularity guide also discusses how the Army will no longer be "faced with a numerically superior opponent and the prospect of high supply consumption, large casualty rates, and massive equipment replacement needs" which would require large support echelons. For further information on this assumption, see paragraph 1-66 of the *Army Comprehensive Guide to Modularity*.

53 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 9-22.

54 This inverse relationship has been well documented in history. Napoleon's Army as well as the American force in the Civil War and World War I continuously experienced this "fodder" problem. If the number of wagons required grows, so does the quantity of fodder to feed the additional mule teams. As additional fodder is required, more wagons are needed to transport this fodder. It results in a never ending cycle of balance between haul capacity and the number of transport vehicles required.

55 The ideal maneuver components of a UEx would be one stryker brigade combat team, one heavy brigade combat team, and one infantry brigade combat team. It can be assumed that each UEx would also be assigned a maneuver enhancement brigade, a tactical sustainment brigade, and an aviation brigade. Other enablers may be assigned to a UEx based on the assigned mission or environment.

56 The reason that the heavy force has always had sufficient organic logistic assets is twofold. First, this force was created less than 65 year ago. When it was created, the army started the unit design at the lowest level (company and platoon level). This bottom up design allowed logistical requirement to be determined and organically resourced at the lowest level. Secondly, the heavy force has two distinguishably different types of transportation. The primary type is maneuver transportation which is their primary combat system (tanks or Bradley fighting vehicles). The second type of transportation is dedicated to fulfill the logistic requirements. Unit do not have to choose between allocating a single resource between maneuver and logistics as light forces have been forced to do since even before the Civil War.

57 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 1-67.

58 For more information on pooling during the Interwar period, see chapter 3 of Jonathan M. House's T*oward Combined Arms Warfare: A Survey of 20th-Century Tactics, Doctrine, and Organization*.

59 Any ad hoc organization requires both time and training to become either effective or efficient. The Army cannot expect to be successful if required capabilities are not recognized or resourced appropriately. The Army can no long expect to win with purely "ad hocery."

60 Historic examples of the requirement for inter-theater long lines of communications are World War II (both theaters), Vietnam, Operation Desert Storm, Operation Enduring Freedom, and Operation Iraqi Freedom. An easy case could be made that all of America's conflicts including the Revolutionary War and the Civil War were fought over extended lines of communication.

61 The location of the logistic gap with respect to organizational echelon has changed throughout history. It has continued to slide to the user end of the supply chain. During the Civil War, it was at the regimental level. World War II's gap was at the Division or Corps level. Korea's and Vietnam's gaps were at the regimental to battalion level. Most recently, Operation Enduring Freedom's and Operation Iraqi Freedom's gaps were also at the regimental to battalion level or below. The shift in the level that was responsible for

the last 1,000 yard was directly related to the Army's organizational structure and what level became the primary maneuver force level. Problems that shift to different levels of an organization between conflicts are harder to identify than those problems that remain at the same level.

62 Frederick W. Kagan, US Military Academy at West Point, stated that there is an inverse relationship between efficiency and effectiveness during the recent AEI Conference on the Future of the United States Army in Washington, DC. [See Dunn]

63 Once the culmination point is reached or exceeded, the force has dramatically increased its vulnerability to the enemy. Reaching or exceeding the culmination point normally results in the loss of initiative at some level. Overwhelming combat power must be regenerated to wrestle the initiative back from the enemy. The regeneration of combat power requires a large influx of logistic or combat service support assets. For more information on culmination points, see *FM 3-0, Operations*.

64 Huston, 667.

65 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 9-23.

66 The limited operational range, haul capacity, and speed of these vehicles may prevent them being an effective asset to cover the new extended battle space. The incurred maintenance aspects of additional parts and repair skills are additional components of the problems, which are worthy of consideration in respect to a viable solution.

67 Huston, 672.

68 Jaffe.

69 "Technological advances" usually result in systems of increased complexity. As systems increase in complexity, the maintenance, support, and transportation requirements have historically increased proportionally to the complexity of the system. Simplicity is not equivalent to complexity.

70 LTC Steven Eden, the Chief of Combat Developments at the US Army Armor Center, wrote an article for *Army Times* that discusses the hollowness or the shell game potential of transformation. The title of the article was "What They Don't Teach You at Leavenworth," which appeared in the July 2003 issue. (http:/www.ausa.org/www/armymag.nsf on 5/19/05)

71 Normally the shell game reduces assets at the tactical level only to recreate them as "pooled" assets maintained at either a higher tactical echelon or even at the operational level. These reductions are presented as more "efficient" solutions; however, they only increase the logistic gap that is already present at the far end of the supply chain.

72 US Army Training and Doctrine Command. *Army Comprehensive Guide to Modularity*, Vol. I, Version 1.0 (Fort Monroe, VA, 2004), 9-23.

73 How are the "pooled" resources or ad hoc organization trained to meet the demands of their assigned tasks? The Army continues to overlook the risks associated with

pooled assets. Pooled assets are required to quickly adapt not only to rapidly changing conditions of the contemporary operating environment but to the rotation of controlling headquarters. Though units may function similarly, each unit has a unique climate. It is critical for pooled assets to conduct detailed rehearsals and training with the supported unit to understand these unique climates. If the pooled assets are continuously being used, when do they conduct these rehearsals and training?

74 The Army's G4 website provides some critical insights to the viewed importance of technology in transformation. The G4 has identified four critical focus areas for transformational success: Connect Army Logisticians, Modernize Theater Distribution, Improve Force Reception, and Integrate the Supply Chain. These four areas directly relate to the G4's transformational vision: "To sustain combat power, our Army must have the ability to "see the requirements" on-demand through a logistics data network. We require a responsive distribution system, enabled by in-transit and total asset visibility and managed by a single owner who has a positive end-to-end control in the theater." More information can be found at http://www.hqda.army.mil/logweb/focusareas.html (as of 20 May 2005).

75 Jaffe.

76 Shrader, 39.

77 American forces in the Civil War as well as in World War I continuously experienced this "fodder" problem. If the number of wagons required grows, so does the quantity of fodder to feed the additional mule teams. As additional fodder is required, more wagons are needed to transport this fodder. These two elements, wagons and fodder, result in a never ending cycle of balance between haul capacity and the number of transport vehicles required.

78 US Department of the Army, "United States Army White Paper, Concepts of the Objective Force", [No date]. http://www.army.mil/features/WhitePaper/ObjectiveForceWhitePaper.pdf on 12/23/04.

79 Shrader, 4.

80 Mark J. O'Konski, "Revolution in Military Logistics: An Overview," *Army Logistician*, Jan-Feb 1999, http://www.almc.mil/alog/issues/JanFeb99/MS20364.htm on 3/11/2005.

81 Huston 252.

82 Shrader 4.

83 Huston, 661.

84 Ibid., 692.

Jones Slide Addendum:
Transformation Logistics - Solution or Shell Game

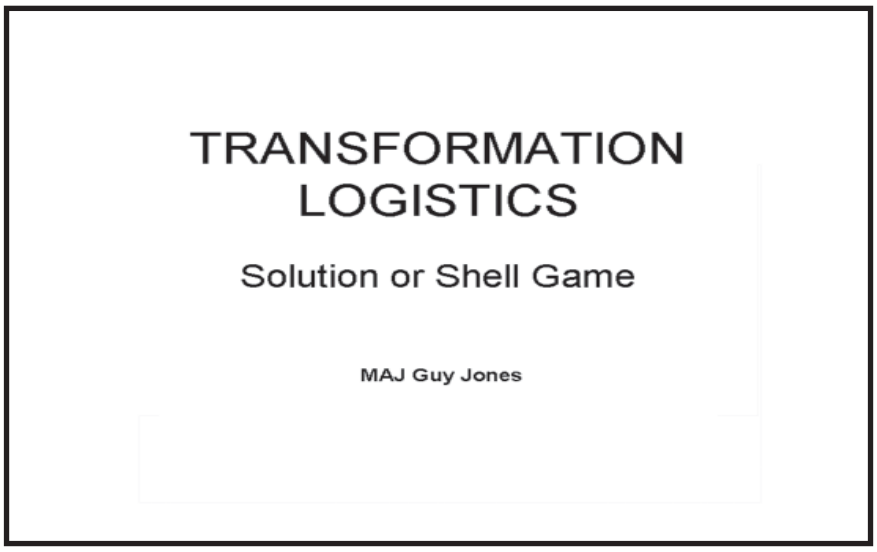


Figure 1

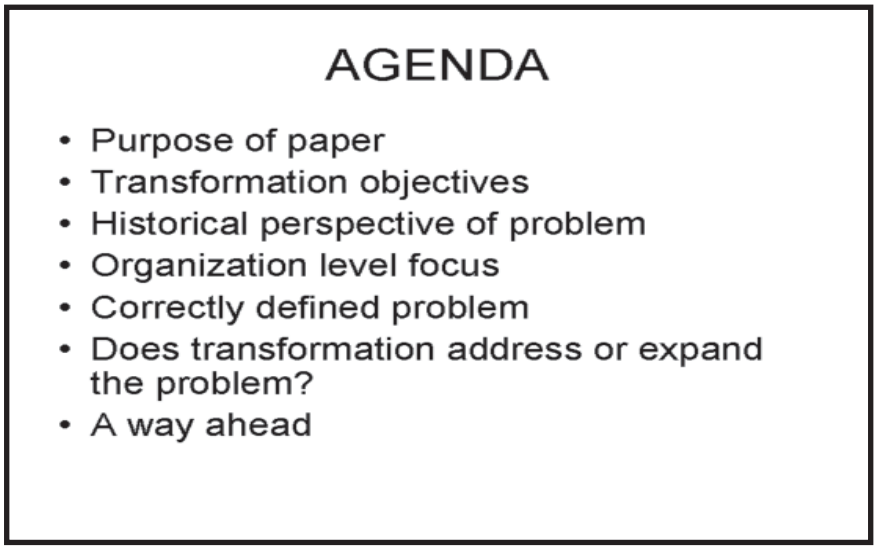
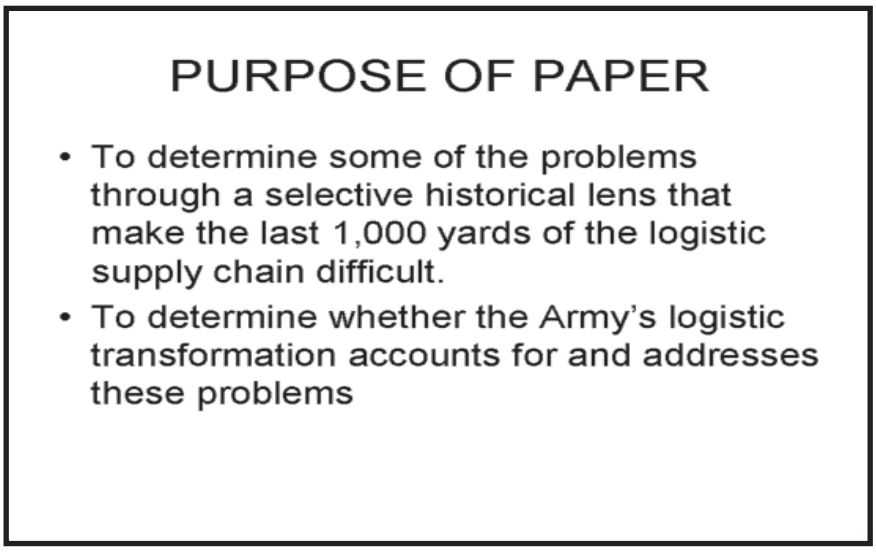


Figure 2



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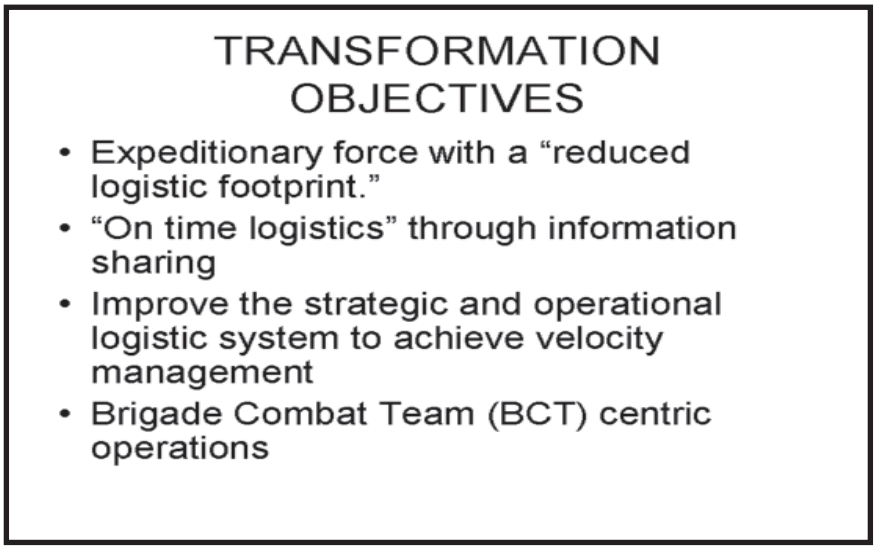

Figure 4

HISTORICAL ANALYSIS OF LOGISTIC PROBLEM

"Whenever shortages of supplies or equipment have appeared at the battle front, from the Revolutionary War to the Korean War, more often than not it has been the result of some shortage in transportation somewhere along the [logistic supply] line."

James Huston
The Sinews of War

Figure 5

What Historically Causes The Logistic Gaps?

- Transport Platforms
  - No issues moving supplies to theater
  - Problem is "inland" or tactical transport
- Labor Forces
  - Fighting force or dedicated labor force
  - Required prior to mobilization/deployment
  - Tooth-to-Tail Ratio
- Material Handling Equipment
  - Reduces size of labor force required
  - Pooled Asset but constantly required

Figure 6

Why Lessons Are Not Learned

"The surge toward modernization stimulated by war once again would decline to a slough of indifference, to be disturbed only now and then… by a few imaginative officers seeking steady improvement, until a new national emergency should once more call forth the waves of progress."

James Huston
The Sinews of War

Figure 7

What Level Needs to Be the Focus?

- Echelons of CSS:
  - Theater Support Command (TSC)
  - Tactical Sustainment Brigade
  - Brigade Support Battalion (BSB)
- What level gets supplies to the soldier?
  Field Service Company: Responsible for both "push" and "pull"
- Logistic Gap at Tactical not Operation Level

Figure 8

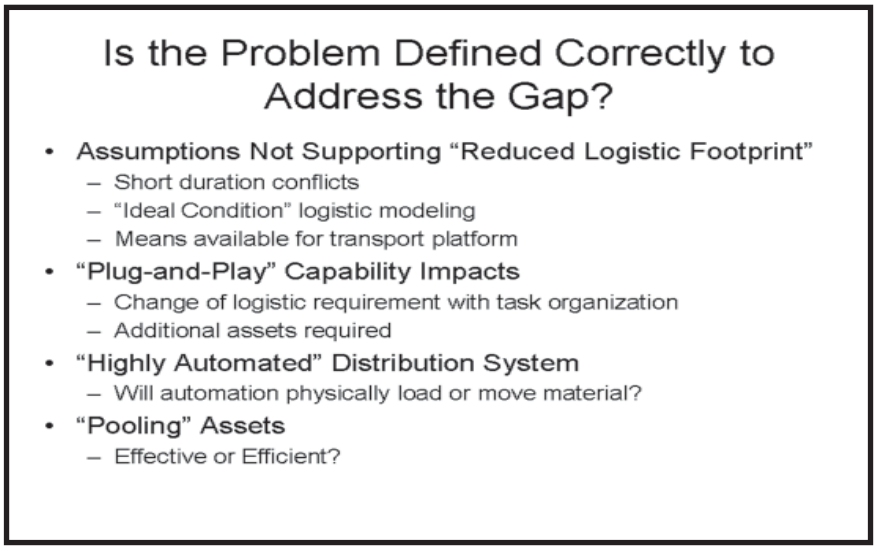

Figure 9

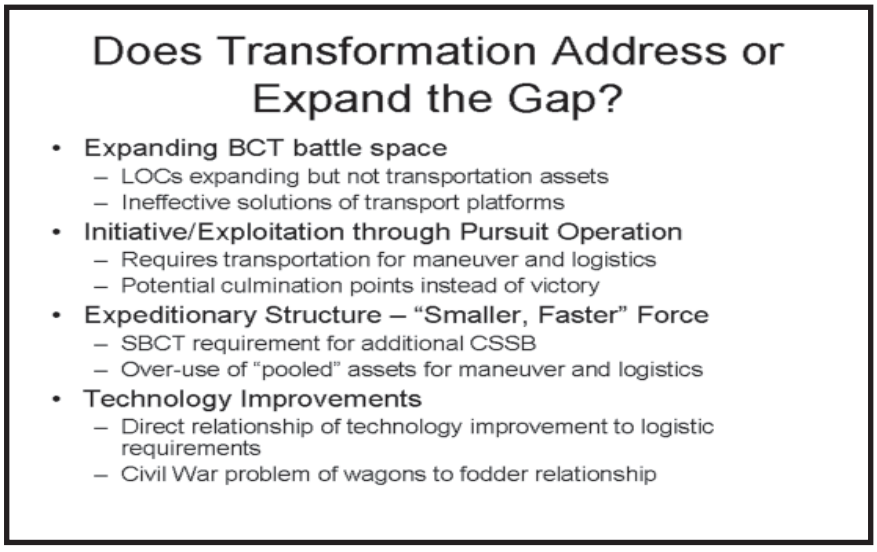

Figure 10

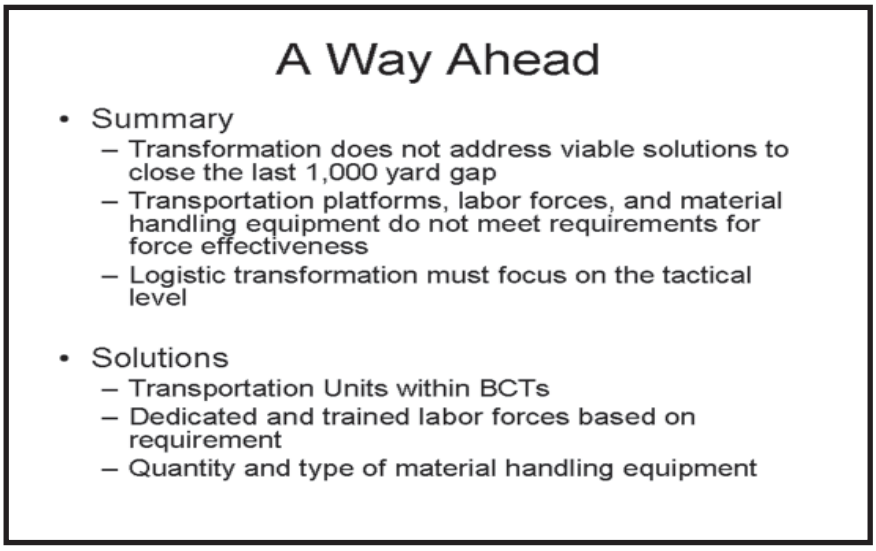

Figure 11

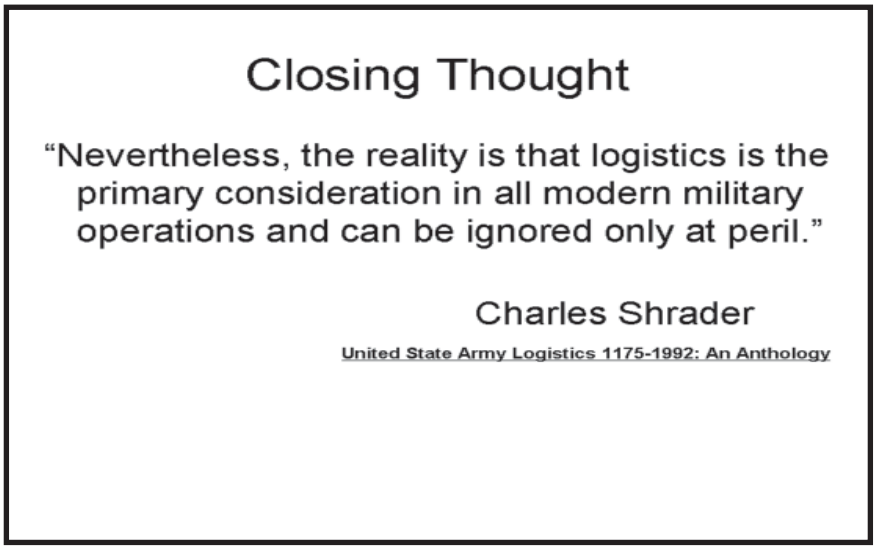

Figure 12

Day 2, Session 3 Question and Answers

Moderated by
Dr. Charles Shrader - Carlisle, Pennsylvania

Dr. Shrader
Thank you gentlemen. I have just one or two remarks and then we'll get on to some questions. I think Major Jones has pointed out a really serious—not only a flaw, but a dilemma for those who are planning for transformation. The old desire, which goes back to the early days of the Army—like 1775—to get rid of the logistical tail, to reduce the size of the force in terms of the logistical component so that you can increase the combat component, is still the central problem. It's always been a problem.

In World War II, almost every amphibious assault made in World War II, the first thing that happened during the planning was that the combatant commander deleted logistical forces from the troop list. "I don't need all those stevedores on the beach. I don't want all those trucks and truck drivers. I want fighters. I want shooters." You know what the first message that came back from the beach to the ships every time was? "I need the logistical guys up here. I need somebody to unload this ammunition, this water, this food." It's really amazing. I mean, almost every amphibious operation, the same thing occurs every time.

Now we have a situation in which it's not the commander of the force on the ground that's redlining the logistical units out of the troop base, but the secretary of defense himself takes a pencil to it. It is a problem—there is a need to reduce the size of the force, in order to be able to transport it more easily. But as Major Jones has pointed out in his presentation, you've got to carefully weigh where the balance point is, because at some point, you go beyond the point of where you're able to support that combat force at all. Logistics is a combat multiplier. Just ask anyone we've faced in the last 100 years whether that's not the case.

I would love to be able to tie these two presentations together. I'm not sure how I'm going to do that. I think probably the way to do it is if you read those publications that Dr. Darius mentioned, and read them carefully about what went on in Kuwait, from the Army Materiel Command perspective, I think you'll see reflected there many of the things that Major Jones was talking about in his presentation. That's probably the best way to approach that.

At this time, I'd like to open it up for questions. Yes, sir?

Audience Member
Will O'Neil, the Center for Naval Analyses. I have a way to tie this together. If you look at what the contents of your logistics are, it's dominated by POL, and the next item is ordnance—ammunition. So the way to go to "lighter, faster, cheaper" is to not have any vehicles, and not be issued any bullets; you know, foot-mobile swordsmen would do the job. Short of that, the materiel commands could help a great deal by finding ways to make vehicles that don't consume as much gas. Of course, by developing weapons that don't need as much ammunition, which in part means first round kill. Now, we've gone a long ways in the latter matter, and we're sort of having to continuously readjust our ammunition requirements, because it turns out that in many cases, we don't need as much ammunition as we thought, because we kill people the first time. But certainly, the trend in terms of vehicular fuels has gone in the other direction. Of course, we have this problem, we want to make vehicles that are bomb-proof, etc. But I wonder if this is something where we ought to be calling more attention to the needs for reduced fuel requirements.

MAJ Jones
Sir, I'll take that. I agree with you. I think that long term in the Army, through technology, that maybe one day we'll be able to get there, that we can run an Abrams for 72 hours or more on one drop of fuel. But from my foxhole, the way I see it is, especially with the creation of doctrine, and even 10 to 15 years in the future, that's not possible. So what we have to do is transformation is not a one-time process—once we go through this, we're done—it's continuous. So we have to actually take off bites at a time, meaning, right now we don't have that technology, either in the field or POL aspect or the in armament, but it could be in the future. So what we have to do is we have to design a force right now based on our current technological capabilities. Then, maybe 15, 20 years in the future, as our technology improves, we can do it again.

Dr. Darius
May I add something to that, please? Our Army Research—ARL—Army Research Labs, and our Research, Development & Engineering Commands, which is now RDECOM—it's a separate major subordinate command of Army Materiel Command—they look at the challenges that we face now, and into the future. Of course, we work with DARPA and other organizations that look further into the future, 10 or 15 years. I'm not saying these are not being studied—they are being studied. The question is, as Major Jones so ably pointed out, is how far into the future before we have hybrid vehicles, before we have lighter tanks? I think the move toward using the kind of equipment we're using, like Stryker, is a move in the right direction. We're moving from track vehicles to wheeled vehicles, so

we're moving in the right direction. I'm not sure if it's a transformation or not; I think the historians would have to write that story later on down the road. As General Brown so aptly pointed out, whether it's change in modernization or transformation, that needs to be seen in the future. But we are moving in those directions, sir, and I appreciate your question. I hope this, in part, answered your question.

Dr. Shrader
We have a question in the back.

Audience Member
I'm Colonel Benson. I'm the director of the School of Advanced Military Studies, and I will be accepting the grading sheets on Major Jones' presentation when we're done. [Laughter] [Applause] Dr. Darius, if I may direct a question to you, sir. Since you observed the ongoing operations—at least at the time you did—our situation we face now is that our Army is coming home, as we all know. We'll have fewer and fewer forward-deployed forces; thus, we are going to become more expeditionary in nature, just by design—doctrine, everything. What did you observe when you were overseas that would inform us in our thinking toward making the Army more expeditionary, both in terms of adjustments to the APS stocks as well as the equipment sets, and I would offer more importantly, in terms of port opening packages?

Dr. Darius
A very valid question; a great question. In Kuwait, we didn't have the kind of deep seaports we had during Desert Storm. We had one major SPOD seaport of disembarkation, and the Kuwaiti International Airport, basically one APOD. In Saudi Arabia, we had an existing infrastructure—it was modernized over two decades—and gave us a much greater capability. We will need that kind of capability if we're going to project the kind of power projected now. But there's no assurance we're not going to have another Somalia, or another area where there is no developed port—seaport or airport capability. So we're going to need forces that are more agile, that could be projected more rapidly, and modularity may be a step in the right direction—historians would have to write about that later on, to see whether it's transformation or whether it's just change. We need agility. We need quick intervention capability. And believe me, looking outside the box, as one gentleman did here about an expeditionary force—now, whether it's going to be a Ghurka force out of Afghanistan, whether it's going to be a force created out of our own indigenous Afghan and Arab population and Hispanic population in here, which we're already absorbing. This is an immigrant society, we may just want to open up our National Guard and our Reserves and increase recruitment in

people who are linguists who know the area, which would be a step in the right direction. If we're going to project power and capability in failed states in the future or in areas in the non-west, we need to look at things probably outside the box. I'm sure a lot of people are doing that right now, I think the presentation by Colonel Harvey yesterday was an eye-opener. He was an area specialist, and he showed some of the problems we face when you deal with people in the non-west. I hope this is an answer in the right direction; it's not a full answer.

Audience Member
I'd like to comment a little bit on your idea of pooling, or proposed pooling. When you talk about MHE equipment (material handling equipment) you're talking about specialized equipment with specialized operators, and increased repair part requirements that are somewhat unique. To put those in each unit dramatically increases your foot size because you need better trained mechanics, more spare parts, and more trained operators. Maybe another alternative is--a lot of your problems today logistically are what you talked about with the wagon and fodder. In other words, a lot of our lift space is taken up with repair parts, and machines that maybe we don't need as many of. I've been deployed with a heavy equipment maintenance company and I never even unpacked my toolkits. So perhaps the best thing to do is to think of something like a pre-positioned ship with the machines already on it, and you can move into an area of operations and just drop the people in on it--some of these things, because spare parts and that take up a tremendous amount of your lift capability. Working at the SPOD we used an awful lot of deck space taking AMC stuff, taking it back to be looked at. So it takes up a lot of your deck space, and a lot of your expertise.

MAJ Jones
Yes, sir, and I totally agree with you, because the maintenance sides consumes, like you said, the fodder space. That's one reason that I think, as we go to transform, we don't necessarily need to look for brand new gee-whiz equipment. I think that you can take some equipment that we currently have, and that the parts and the knowledge for the repair are already in the system, and duplicate them. That's really what I'm advocating, because when you pool assets, like I said, it is for the purpose of the units below them not needing them in a reoccurring basis. However, a good indicator that I have found to know when your pooled assets aren't being used correctly is at any given day, if you request some, none are available, and this is a continuous process—every single day, not available—that probably is a good indicator that we don't have the capability that we think we do.

Dr. Shrader
General Brown?

BG (Ret) Brown
Yeah, kind of following up on that thought, your recent and personal experience is the Army as it exists today and not necessarily the Army that we're trying to design towards. With respect to the Army we're designing towards, you expressed a concern that there weren't sufficient logistical assets within the Brigade Combat Teams, and in particular, transportation assets. To what extent do you think that that's likely to be offset by the fact that they are also designing modules that would be sustainment modules, that are different and distinct from the Brigade Combat Teams? For example, there's going to be 16 sustainment brigades within the active component, and there's probably about a dozen sustainment brigades built into the reserve component. In your view, will we be able to design sufficient logistical assets into those sustainment brigades, that without encumbering the Brigade Combat Teams with too much, we can nevertheless make sure they have enough, when the time comes to use them?

MAJ Jones
Yes, sir. I think the answer to your question, in my view, is yes. Two things. First is when I say that the lack of assets at the BCT level, it really is in those three primary assets that I looked at—transportation, for example. Even in the modularity guide, it talks about for an IBCT, the requirement for 24 to 36 trucks just to move the unit—in addition to what they currently have inside. If you look at how much currently we are projecting transportation assets to have within a sustainment brigade at the UEx level—which would be the next level up—one they're not organic, and that's one question that I have not been able to find an answer to. As we have designed these new sustainment brigades to support the UEx, other than the headquarters, there is very few other assets that are organic to it—which gives us the capability, but it also gives us a disadvantage, because now, where are these other units coming from? Eventually, of course, we'll create them, but in the near term, where are they coming from?

The second piece is, I think that the sustainment brigades have the capability—I'm talking about UEx support—have the capability to support our force, if we—I don't mean to be coy, but—take off our blinders, and realize that a Stryker Brigade is not self-sustaining, without giving it a second CSSB. So why keep it at the sustainment brigade? I would advocate going ahead and giving it the rest of its assets that it needs, so it can function truly how we want it to function—that means being BCT-centric operations, where what we actually hold at the sustainment brigade level is really the assets that we want as an emergency basis. Does that answer your question, Sir?

BG (Ret) Brown
Sure.

Dr. Shrader
I'd like to just add on real quickly that the advantage, of course, is obvious, of having these assets be organic, and that is that they train and operate with you on a daily basis, so that you know how they work and they know how you work. I mean, that's the whole essence of having them be organic. When you move a truck company into a combat unit to assist them in a move, there's always a great deal of friction, even with the best of will and the smartest of guys and gals, just trying to figure out how each one operates. So that's another advantage, I think, of having them be organic.

BG (Ret) Brown
But the design difficulty is you don't want to have so much organic to the Brigade Combat Team that it's encumbered. It needs to have the things that it customarily will use almost all the time, and then those things that give it surge capabilities, we don't organic to it.

MAJ Jones
So that's why I advocate that that's the crux of the problem, is we have to do some hard thinking to figure out what are the capabilities that we want, and then what assets are going to give us that capabilities. Because until we establish this as, yeah, we agree that this is the capabilities we want, once we establish that, then we can leave it to nugs like me to figure out, okay, I'm going to need exactly X, Y, or Z. I am not advocating—and that's why I wanted to readdress—I am not advocating that everything go down at the BCT level, for exactly the reason you pointed out. They're going to be so big that they cannot perform the capabilities they were given, so it has to be a balance, and that's why I think there has to be a lot of thought put into it, and not just start throwing assets at it.

Dr. Shrader
Okay. We had a question at the mic in the back first.

Audience Member
My question is for Dr. Darius. Sir, there's been a lot of talk over the last couple of days about adaptive loops, and about how they're driving the conflict we're currently involved in. Specifically in regards to the Army acquisition system, and AMC's place in that; there's been a lot of talk recently about the interrelationship between combat developers, material developers, and the user community. In particular, there's been a perception that our acquisition system has been very slow,

inefficient, and unable to meet user needs. Sir, what's your perspective on this, in regards to AMC, and what are your thoughts for the future role of AMC in this process, as a historian?

Dr. Darius
Well, AMC plays a critical role all the way—General Kern used to say—from factory to the foxhole, and Tanzler Johnson, our capable G5, used to say, "Sir, it's from laboratory to the foxhole." So the debate continued between those two as to which one it is. But we're involved in an entire process of acquisition. I remember talking with General Thompson back in the 1980s—Richard H. Thompson; great guy. He used to say he wanted to reduce the acquisition cycle for major weapons systems. I hope I'm not rambling in answering your question. But anyway, he said it takes too long to bring in a major weapons system on board—we need to reduce that cycle. But how do you reduce it? The skunk work age is gone—you know, where you can do things on the fly. You have to put in a contract, you get the Army contract agency involved, you have to put in the specs. It's all very complex and complicated. Then you involve what used to be Test and Evaluation Command; now it's Army Test and Evaluation Command (ATEC); TECOM used to be part of AMC. So it's a very extensive process, time-consuming process. How do you reduce that? It's a very legitimate question, and it's being studied; it has been studied in the past.

We could do some things, like the Stryker, where you get off-the-shelf equipment and utilize it. But if you're going to change major weapons systems, and looking into the future, it's going to be driven by TRADOC and AMC again—TRADOC, the doctrinal part, and... What is the next war going to be like? Are we going to have two major regional conflicts? Are we going to have fights with guerillas in failed states, or future potential failed states? What are the needs? I mean, it has to be done in a total context, involving not just the Army, but also the other services, if we're talking about fighting jointly. General Scales thought, well, it was not jointly; in Iraq, it was basically the Army and the Marine Corps. But right now, the conventional wisdom, we're fighting joint. So you're dealing with interoperability, rationalization, standardization, and interoperability—the entire issue of how we're going to involve the coalition, and Allied Forces are involved also.

So although we are a superpower, and we are the envy of the world in terms of strategic airlift and sealift, Nobody else has that kind of capability, guys; we are a superpower. But being the superpower, and the rich man on top of the hill, everybody's envious of us; they want to bring us down. Not necessarily want to bring us down, but they can't get to where we are, so we have a lot of commitment. So we need to sit down and think about what is a commitment. Like Bernard Fall

used to say in the ‘50s about Vietnam—“If we have a commitment with them, what is vital? We need to really sit down and think about it.”

When I was at the Army War College, I used to carry this debate with some of the colonels there. They used to say, “Is South Dakota vital?” They were kidding, but they were making their point. We used to sit down and walk around the Army War College, saying, “What about Yugoslavia after Tito—what’s going to happen? You know, nobody wanted the worst case scenario.

When I was there in 1975, I used to say, “We did a study on Iran. What about Iran after the shah? Well, the assumption coming from DCSOps (Deputy Chief of Staff for Operations) of the Army was that, “If the Shah goes down, the queen takes over; she leaves, his son would take over.” Then we said, “What if this doesn’t happen? What if there’s a revolution?” So I had to send a little minority report down to the DCSOps of the Army that I did not concur with the assumptions that DCSOps made about what might happen. We need to sit down and think about it—we need to sit down and think outside the box. I think a forum like this allows us to do that, and I wish there were more forums like this, not only here but also all the other places. I’m not sure if answered your question—I probably rambled—but I think there was some responses to that.

Audience Member
Thank you, sir.

Dr. Shrader
Rich?

Audience Member
Yeah, a couple of questions. Number one is, given what we’ve learned over the past couple hundred years, given the logistics and the ever-present Clausewitzian encryption—to bring the dead jargons into the fray—would it be more sensible to just drop the notion of just-in-time logistics as something that you simply can’t make friction-proof? The second thing is, given the increasingly expeditionary nature of missions that the Army is going to take, as Colonel Benson raised, should the Army develop essentially a forcible entry capability?

MAJ Jones
I’ll take a stab at it. If you’re asking for a personal opinion from on the ground—

Audience Member
Yes.

MAJ Jones
I think you're right on the money. I think we need to drop the concept of just-in-time logistics. I think it was General Scales who talked about it yesterday—as long as you add network-centric in front of something, you know, it's going to mean something; that's not necessarily the case. Just-in-time logistics has some value, meaning that when the AMC, or at the far end, the other end that I talked about at COMMZ, can see what assets are needed on a reoccurring basis, that's good. However, the Army is not Wal-Mart, and I know there's a lot of people out there—not in this forum, but other writers—that would like for us to be.

The difference occurs in what I see as two areas. One, the Army—especially at the far end, the tactical end—is always on the move; Wal-Mart stores don't move. The second one is, I can be perfectly fine on my logistics status this second—two minutes, two hours, two days from now, that could change; Wal-Mart doesn't change that quickly. So that's a personal opinion on that one. The second one, as far as the forced entry, I think, based on the lead-in question from Colonel Benson, I think that's one of the things that we have to look at, because our inability, or due to the political situation, for us to come across Turkey, demonstrated to us that we can never do away with units like the 101st, the 82nd, or the Marine Corps, that actually have a strategic entry capability—we have to continue to build on that. Now, I know some people, especially in the logistics world or big Army doesn't want to hear that, because that's a big bill payer that we might not use. But if we don't have that capability, where will we be when we need it?

Dr. Shrader
You had a question over here? Sir?

Audience Member
I'm going to try and put this in simple terms because I may not be up on all the vocabulary, but one of the questions, you were talking about where we put the line on what goes with the deployable force and what stays back, what do we move around. But is it in fact on the table, too, at some point, you just simply say, "We need a bigger boat." You know, we're going to need more lift capability because we can't do what we want to do with what we're proposing to move quickly now, and so what we're going to move quickly has to be bigger and more capable than what it is right now, and at that point, we decide we need a bigger boat, we need more lift, and we need faster lift. Is that still on the agenda at some point to be reopened in the dialogue?

MAJ Jones
Sir, I know I'm not qualified to answer that.

Dr. Darius
I can't answer the boat question, but I know that this was a prepositioned war. The Army has boats, believe it or not. The Army has aircraft. General Brown?

BG (Ret) Brown
Yeah. For some time, there has been a plan to build additional sealift, and it, you know, goes through the vagaries and bounces around with respect to funding. But there is—and remains—plans for additional sealift, plans for additional airlift. That complements the expeditionary nature of our Army. As an end state, the greater expeditionary potential is anticipated to rest on three legs, one of which is the modularity initiative that allows things to be more capably deployable—I mean, their packages are easily and quickly movable, so that's "right-sizing," I guess you'd call it. The second is promptness—to have in strategic regions sufficient materiel deployed that you can in fact get to it quickly, and you can marry up troops who are flying with materiel that's already there. The third is just additional capabilities with respect to sealift and airlift. So it's kind of disappeared from the radar screen, but it's still there.

Dr. Darius
The prepositioned ships that we have are tremendous. The 3d ID was very happy to get our equipment that we had on ships. I visited the ship that we had the prepo equipment there, and also visited the ship we had the ammo. We can't fight a war without ammo; we can't fight a war without food. If we didn't have the Logistics Assistant Civil Augmentation Plan, if we didn't have Brown and Root, we couldn't feed the soldiers; we couldn't put out the tents that—the LOGCAP contract grew from $3 billion to about $10 or $11 billion in the last three years. We do a lot of work with the contractors, too, sir—this is something we often don't realize. AMC has about 50,000 contractors in theater—50,000. Our civilian workforce is about 50,000. Yeah, just about the-—almost an equal number of contractors. So the battlefield is changing, sir, and while the objectives may be to reduce the logistics footprint, and we probably would find ways to manipulate that and reduce it, we need to support the soldier—that's what we're here for; that's what AMC is here for.

BG (Ret) Brown
Remember, about five years ago, Shinseki's vision, as Chief of Staff, was that we'd be able to deliver five divisions within 30 days, and that still is within the design, and we're still building towards that capability. But of course, the divisions you're talking about are very differently designed, and the promptness has expanded, but still, that's a lot of lift, to get five divisions moving in 30 days, and we're building towards it.

Dr. Shrader
I think we have time for maybe one more question—the mic in the back.

Audience Member
I wonder if you have looked—specifically, you talk about plug-and-play—and I wonder if you have looked at the historical example of armored cavalry regiments, a brigade-centric organization, and how it is supported on a plug-and-play basis—say, Desert Storm, or prior, Herat, because it deals with the same problem that your BCTs do, and it was nondivisional, and it was done plug-and-play.

MAJ Jones
I'll answer it yes and no. I did look at it as far as the inception. I believe—and this didn't come out in the presentation—of the three types of BCTs that we have bought into as far as the Army, the heavy force, or heavy BCT, is actually designed correctly. It can move, it can sustain itself. So as far as looking at it from a historical perspective, I think we got that one right. I believe that the reason we got it right was, from its inception, it started at the smallest level, and we understood that, as we grew it, we adapted it at each level to allow it to sustain itself along the way. We didn't start with the big organization, and then try to figure out how to support it, cutting corners; we started it with the platoon, and then the battalion, then the division. I think that, as far as historically, is what I'm going to try to look at to design logistic assets for the other two BCTs, so it can come up on par with our heavy BCT. Did I answer your question, Sir?

Audience Member
Yes. Thank you.

Dr. Shrader
Okay. My sole advantage in this job is I get the last word, and all the jokes about transporters and nontransporters and combat arms guys and non-combat arms guys aside, I think our session brought out one important point, and this is particularly for those folks seated in the back of the room, and that is, the planning, the thinking about logistical operations and logistical organizations requires the same amount of brainpower and effort that's being put into thinking about the combat forces themselves, because the two are part of a whole. If you make the right arm really strong and the left arm really weak, it's not going to work. So I hope that the same amount of effort goes into thinking about these logistical kinds of things that goes into the other part of it. I thank our two presenters, and I thank you for being here. [Applause]

Transforming the Brigade Team on the Battlefield: Modest Lessons in Coalition Operations from the War Diary of the First Canadian Armoured Brigade (1 CAB) in the Italian Campaign, 1943-1945.

Major Michael Boire

Introduction

This paper will present a historical example of army change, specifically the transformation of Canadian armor on the battlefield. In order to draw useful conclusions on how armies cope with the pressures of transformation in action, this paper will explore four distinct yet related sub-themes: organization, education, training, and doctrine. As the title indicates, the research context is the participation of a Canadian armored formation in the Italian Campaign. Indeed, the crucial research question is: What were the fundamental elements of that unique Canadian armored experience and are they transferable to the modern battlefield?

Thesis

The paper's thesis is that the community of military historians can continue to be useful, as well as ornamental, in the face of army change. We can support today's armored warriors by constructing menus of tactical and technical lessons learned from the experiences of change in past wars and exploring their pertinence to the modern battlefield. The war diary written by the Headquarters of the First Canadian Armored Brigade (1CAB) during the Italian campaign serves as an example of a historical document replete with useful examples of the management of change, specifically in the realm of armored warfare. Many of these lessons merit a sober second look. What follows is an executive summary of the brigade's history as background, followed by an abridged selection of lessons the unit learned as it lived its own evolution on the battlefields of Italy.[1]

The Brigade's History

The First Canadian Armoured Brigade (1 CAB) organized itself quickly during the spring of 1941. Composed of three tank regiments with supporting logistics units, led by reserve officers and NCOs and manned by volunteer citizen-soldiers, the formation began life as an army tank brigade whose role was to furnish an infantry division with tank support. While 1 CAB nurtured hopes that it might eventually fight as a proper tank brigade in a breakthrough role, its infantry support mission remained unchanged throughout the war. After a brief period of basic training in Canada, the brigade found itself defending the southeast corner of England against the threat of an enemy invasion while struggling to acquire tank

skills in a country seriously short of suitable training areas and ranges. During this period, one of the brigade's regiments participated in the Combined Operations raid on the French port of Dieppe in August 1942, suffering heavy losses in the first use of Allied tanks against the Atlantic Wall.

Committed to the invasion of Sicily in July 1943, the brigade supported infantry divisions of Montgomery's Eighth Army as they pushed Italian and then German defenders across the island's mountainous interior and along the coastal plain. Bouncing the Straits of Messina in September, 1CAB fought up the Adriatic side of the Italian boot ejecting the 1st *Fallschirmjaeger* Division from the town of Ortona as the year ended.

Deployed to the western side of the Apennines, as the Allies concentrated forces for the advance on Rome in the spring of 1944, 1 CAB supported Allied divisions in the assault on the Gustav Line at Monte Cassino. There the brigade caught everybody's attention by crossing the Rapido River on the campaign's first self-propelled bridge. The brigade's engineers had welded several lengths of Bailey bridging onto two Sherman tanks. Then it was down the Liri Valley to Rome, through the German defences in front of Florence, across the Arno and into the mountains north of Florence where the brigade supported the Fifth US Army during the autumn of 1944. Transferred to the European theatre for the final battles of the European campaign, 1 CAB supported Allied divisions in the final battles in Holland and Germany. The Canadian government de-mobilized and repatriated the brigade at the end of 1945.

During the Second World War, no Canadian infantry or armored brigade saw more action than 1CAB. In the 657 days from the invasion of Sicily on 10 July 1943 to V-E Day on 8 May 1945, brigade units were in the firing line for 532 of them supporting 20 different British, American, Canadian, Indian, New Zealand, and Italian divisions in Sicily, Italy, Holland and Germany. So the brigade spent 80% of its war fighting. Its tanks supported the infantry from a majority of national contingents in the Allied coalition. With that record of service, it is safe to say that the brigade learned a few good lessons.[2]

Organization

First, let us look at organizational aspects of change in 1 CAB. Though the brigade retained its infantry-tank role throughout the war, its leadership longed for the opportunity to act as a tank formation, fighting its three regiments as a single armored formation. As it crossed the Straits of Messina in September 1943, that possibility appeared likely. Indeed, Montgomery, their army commander, had warned the brigade to prepare for such a moment. Once the mountains of Calabria were behind them, there appeared to be possibilities for armored maneuvre

on the southern coastal plain. To general disappointment, the German defenders would not offer an open flank as they retired northward. Nonetheless, the brigade was prepared to re-role at a moment's notice. Neither leaders, nor soldiers, considered a fundamental and rapid reorientation of their battle tasks as particularly problematic. Command post exercises and tactical training in England, and later in Sicily, prepared the way for such a change by creating a mindset that welcomed challenge.

This held true for the brigade's principal fighting and communications systems, as well. 1CAB's tank crews mastered four rather different fighting vehicles before finally receiving their Shermans on the eve of the invasion of Sicily. Mastering this procession of equipment instilled a sense of confidence that they could adapt to technological change quickly. Saddled with underpowered and unreliable high frequency radios, the brigade headquarters developed an alternate system of command and control based on highly trained liaison officers who collected and delivered information to higher, subordinate and flanking formations. The brigade's senior leadership exercised battle command through multiple tactical headquarters. To ensure redundancy in critical senior staff positions, logistics and operational staffs learned to replace each other.[3]

Education

In 1CAB education was essential to mastering cultural change. The brigade headquarters became a finishing school for the formation's junior officers where they learned the finer points of cultural awareness when dealing with coalition partners as well as the intricacies of civil-military relations. Supporting so many different nationalities across the Allied Armies in Italy created a requirement for extreme interoperability unforeseen during preparatory training in England. Exposure to the imperial composition of the Eighth Army in Sicily had produced in 1CAB's officers a cosmopolitan approach to inter-arm cooperation. When dealing with allies, tolerance, communication, and cheerfulness were the order of the day. With such an example from their leaders, the brigade's soldiers built an operational culture that accommodated an extensive range of national tactical doctrines. This was a significant transformation, indeed!

Training and Doctrine

From its baptism of fire in Sicily to the end of hostilities in Germany, the brigade's training philosophy incorporated constant change. Commanders at all levels maintained five training priorities. The first was tracking developments in new enemy equipment and tactics to assess their impact on the brigade's future operations. The second was to obtain lessons from the after action reporting process that would improve the brigade's performance. Third, to incorporate

information on the enemy as well as lessons learned into pre-battle training plans. Fourth, to insist that the infantry units to be supported in upcoming operations participate in an infantry tank cooperation exercise. The fifth priority was to remain up-to-date with modifications in allies' tactical doctrines and incorporate them in the cooperation exercises. Adherence to this formula set the conditions for success. Neglecting a priority produced battlefield failure. This was especially the case in operations where supported infantry units had been reluctant to find the time to participate in an infantry-tank cooperation exercise before crossing the line of departure.[4]

While maneuvering up the Italian boot, arguably the European theatre's most rugged terrain, the brigade defeated veteran German airborne and mechanized units equipped with superior anti-tank weapons and supported from time to time by insurgent groups in the local population. A command detonated roadside bomb killed more than one vehicle crew, as did antitank mines laid in the rear areas by Fascist sympathizers. Nonetheless, the brigade's battlefield success was the result of a training regime closely supervised by leaders who were committed to anticipating change in order to dominate it.

Conclusion

The brigade was indeed unique. Bringing together three militia regiments as well as supporting logistics units into a single fighting organization, 1CAB was raised in the context of a rapidly expanding army that had no real armored or mechanized traditions, and consequently little practical expertise in combined arms maneuver. Whereas Canadian infantry formations could draw on the experiences of the Great War as they organized themselves for eventual battle, the armored brigades and divisions of Canada's wartime army had no such corporate memory to draw upon. Consequently, 1CAB found itself creating its own senior and junior leadership cadres, developing its own armored skill-sets and training programs, while modifying British armored doctrine to its own purposes. The brigade was a new formation serving on a weapon system just recently introduced to Canada's army—the tank. In many ways, the odds were against the brigade's eventual success. The learning curve was not just steep—it was indeed vertical. For the First Canadian Armored brigade in the Second World War, change was a way of life.

Notes

1 In the context of Commonwealth operations in the Second World War, the war diary was both a descriptive and analytical report treating a unit's experiences on the battlefield. In order to avoid potential information dilution or distortion, units and headquarters submitted their war diaries directly to the War Office in London, rather than staffing them up the chain of command. Diaries included a 'summary of events and information' as well as copies of all orders and instructions received and issued, battle narratives identifying lessons learned in action, assessments of enemy intentions, tactics and new equipment as well as operational and administrative policy correspondence. During the Second World War, the Directorate of Tactical Investigation at the War Office made a careful study of unit war diaries in order to synthesize historical, tactical, and technical information into pamphlets and reports circulated to armies in the field. Because the war diary was an operational document, prepared by a unit or headquarters staff, endorsed by the commanding officer, and submitted promptly each month, they can be excellent sources of narratives and analyses for the military historian. See National Archives, Kew, London WO 232 "The Directorate of Tactical Investigation."

2 " A Brief History of 1 Cdn Army Tank Bde" Appendix 30 to 1 Canadian Army Tank Brigade War Diary 1-30 June 1943, National Archives of Canada (NAC) Record Group(RG) 24 Volume (vol) 14028 / Reel T-10630 and "Historical Narratives Files" Appendix 16 to 1 Canadian Armored Brigade War Diary, June 1945 , NAC, RG24, Vol 14043 / Reel T-10649

3 " 'Beyond the Sangro' - an Account of the Operations of 1CAB during December 1943" Appendix 40 to 1 Cdn Armored Brigade War Diary February 1943, NAC, RG24 Vol 14031 / Reel T-10635;

4 " Weekly Report on Operations" in 1 Cdn Army Tank Bde ;"Account of Operations in the Liri Valley" Appendix A to 1 Cdn Armored Brigade War Diary May 1944, NAC, RG24, Vol14034 / Reel T-10637;

Missile Defense – The Canadian Conundrum

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Introduction:

The debate on missile defense in Canada has been one characterized by starkly ideological, highly emotive, and, at times, even irrational discussion. The Ground-Based Midcourse Defense (GBMD) system has been described as "insane," "impossible" and "imperialist" by critics.[1] Former Liberal MP Carolyn Parish went so far as to classify all GBMD supporters as "the coalition of the idiots."[2] Many have suggested that GBMD will usher in a new arms race and that by participating, Canada will contribute to that arms race. Some critics and members of the government have even tried to cast missile defense as a women's or mothers' issue, such as Member of Parliament (MP) Sarmite Bulte, head of the Federal Liberal Ontario Caucus, who stated, "Personally, I think that you'll find a lot of consensus among women my age, who are mothers and parliamentarians, that we're not interested in missile defense."[3] Other opponents have used GBMD as a platform to attack broader engagement with the United States, such as Liberal MP Bonnie Brown who argues, "I think the proclivity among women is to be worried about further engagement with the United States."[4] Mel Hurtig has dubbed the system a "tragic and potentially cataclysmic blunder" and a "horrendous scheme" that will lead to nuclear Armageddon.[5] None of these statements, comprised of negative generalizations and fear mongering contribute.

Those in favour of the system have not faired much better in contributing to an honest and straightforward discussion of the merits of missile defense. Proponents have tended to dismiss serious questions about the feasibility of the system, the implications of participation in GBMD on Canadian policy and have in some cases, severely overstated the negative results of non-participation. Joe Varner, for example, argues that in light of Canada's indecision on GBMD and the US Unified Command Plan, North American Aerospace Defense Command (NORAD) has been rendered irrelevant and unsalvageable. He denounces the 2004 NORAD amendment as too little, too late, claiming "the corpse (NORAD) was already cold," when such efforts commenced.[6] This sort of fatalism

about the consequences of non-participation and the resulting implications for NORAD, including the common argument that NORAD will become a client command to US Strategic Command, subsuming Canadian sovereignty, typifies the extreme pro side of the debate. This sort of fear mongering about the end of all bilateral defense relations is equally detrimental to the debate as those arguments which claim the system will result in nuclear Armageddon, both creates more false urgency and panic than quality contributions to the discussion.

Even the most earnest attempts for public discourse on the topic are marred by misnomers and misconceptions about what missile defense actually constitutes. Up to the present time, this debate has done very little to inform Canadians about what missile defense would really involve for Canada. The pundits, however, cannot be blamed for all the myths about missile defense that circulate in the media and in the church basements. The highly technical nature of the system does not exactly make for Sunday reading material, and the constantly shifting plans and numerous types of missile defense included in the Bush Administration's 'layered' system frequently confuse even the experts.

The debate on Ballistic Missile Defense (BMD) must be an informed one if it is to be of value. In this respect, a number of key research questions must first be considered. These include:

a) What is BMD?

b) Which portion of BMD is Canada currently involved with and what portion did Canada consider joining?

c) Would Canada contribute to the weaponization of space?

d) Is GBMD Militarily Necessary?

e) Would Canada be asked to contribute money?

f) Will GBMD be effective?

g) What will be the Impact of GBMD on Canadian Sovereignty and the future of NORAD?

h) Does GBMD promote Canadian Policy Objectives?

This paper will seek to answer these questions, following the general research question of "Is current limited Canadian support and participation in Ground Based Midcourse Defense (GBMD) through Integrated Tactical Warning and

Threat Assessment (ITW/AA) and any potential future support or partnership in the GBMD system is in Canada's national interests?" This paper shall hypothesize that Canadian participation in GBMD through the provision of ITW/AA and any future further operational or political participation in GBMD is in Canada's national interests. Canadian national interests shall be defined as: Canada maintaining and strengthening sovereignty and security; the protection of North America; and the preservation and promotion of international peace and security, as defined by the International Policy Statement of 2005. The paper will focus specifically on how participation in GBMD supports the specific interests of maintaining and strengthening Canadian sovereignty and security, and the protection of North America.

This paper will assert that Canadian provision of ITW/AA through NORAD, to US Nothern Command (USNORTHCOM), for the purposes of operating the GBMD system is a form of participation in the missile defense system. This paper will argue that provision of ITW/AA constitutes a form of participation because the information contained in ITW/AA is a critical and integral component in the operation and execution of Ground-Based Midcourse Defense. ITW/AA is required to alert the GBMD system to any incoming warheads and to target outgoing interceptors as ITW/AA provides the approximate trajectory of the incoming missile – critical information in targeting interceptors. This view point is supported by comments made by Canadian Ambassador to the United States, Frank McKenna, who stated in reference to the Canadian participation in GBMD, "We are part of it now."[7] McKenna went on to specifically establishing the August 2004 decision to allow NORAD to relay ITW/AA information to USNORTHCOM for GBMD constituted involvement in GBMD, stating, "There's no doubt, in looking back, that the NORAD amendment has given, has created part—in fact a great deal—of what the United States means in terms of being able to get the input for defensive weaponry."[8] For the purposes of this paper, the provision of a critical and integral operational component of GBMD shall be interpreted as quiet participation in missile defense, although it shall not be interpreted as full support, participation or partnership—politically or operationally in the system. As Bill Graham points out that the decision to share information "…is not the same as sending a missile up to intercept another missile—that decision will be taken in the course of good time by the Prime Minister of Canada,"[9] however it is still a form of involvement and participation according to Canadian defense officials and Canada's ambassador to Washington.

When the time for the decision on becoming a full partner in missile defense came in late February of 2005, Canada clearly distinguished between providing support for the system via involvement in GBMD and all out participation, declining the US offer to fully partner in GBMD. The historical significance of this

decision was not lost on experts in the field who noted that for the first time in 60 years, Canada declined to participate in defending North America as a single theater of operations, opting instead to section off the defense against ICBMs as a purely American responsibility.[10] This represents a fundamental shift in Canadian policy, unaccompanied by a formal shift in policy or shift in Canada's national interests regarding the defense of North America, in spite of government assurances to the contrary in advance of and following the decision to say 'no' to further participation in the GBMD system. In advance of the decision, Minister of National Defense Bill Graham asserted that the GBMD decision would be made, "…in accordance with Canadian needs and Canadian appreciation of our strategic interests in support of the defense of North America …"[11] Following the decision, Foreign Affairs Minister Pierre Pettigrew claimed that the decision was made based on policy rather than emotion, however there is no evidence that any fundamental shift in policy or interests occurred to account for the 'no' decision on missile defense. Quite the contrary, there is evidence that participating fully in the program would have been in keeping with both The 1994 Defense White Paper and the 2005 International Policy Statement on Defense (see section h for more information.) The government continues to state its support for NORAD and continental defense, with Prime Minister Paul Martin stating "Canada remains steadfast in its support of NORAD,"[12] and then going on step further to state support for continental defense was the raison d'etre behind the 2004 NORAD amendment declaring, "That's why we agreed last summer to enhance our long standing agreement to track missiles through NORAD. We stand by that commitment."[13] The implications of quietly participating while simultaneously undertaking a major policy shift without the accompanying interests or policy reorientation will be explored at length under section g of the paper, examining the affect of partial participation on Canadian sovereignty.

While the current government has decided against further participation in GBMD (beyond ITW/AA), there are indications that a future government or shift in the balance of power of the House of Commons could result in a revised policy, as the current decision was made primarily upon preserving the immediate power of the government, rather than the any deep seeded opposition to missile defense or drastic shift in policies or national interests.[14] The government had expressed support for Canadian involvement in GBMD on a number of occasions in the past, including the Prime Minister himself who repeatedly expressed a positive position on missile defense while on the campaign trail and during his Prime Ministership when he stated, *"If there is going to be an American missile going off somewhere over Canadian airspace, I think Canada should be at the table making the decisions."*[15] The August 2004 decision to support GBMD through ITW/AA appeared to be confirmation of some level of support

for missile defense and certainly a reaffirmation that Canada should have a seat at the table and NORAD should remain relevant.[16] Comments by senior Canadian officials also indicate that there could be a reexamination of the issue by a future government, one senior defense official told CBC news "It is a firm 'no'. I am not sure it is an indefinite 'no'."[17] Given the partisan circumstances under which the decision was made, it is reasonable to consider the benefits of current support through ITW/AA as well as the merits of potential enhanced support (most likely in a political form, due to the operationally advanced stage of GBMD's development), versus no further engagement or partnership in GBMD for Canada's national interests.

What is BMD?

It is often said that missile defense is America's new 'Star Wars' program. However, BMD is neither 'Star Wars' nor the 'Son of Star Wars.' The Canadian media, and even some academics, have adopted the term 'Star Wars' as a pseudonym for Ballistic Missile Defense. Referring to BMD in this manner is not only inaccurate, it biases the nature of the debate. 'Star Wars' was the catchy nickname given to the US Strategic Defense Initiative (SDI) – Ronald Regan's vision for an all-encompassing missile shield over North America. The program was widely criticized for its potentially destabilizing effects on the US-Soviet relationship, as well as for its futuristic design, hence earning the nickname 'Star Wars.' In its mature state, it was to include the deployment of thousands of space-based interceptors, known as the Brilliant Pebbles Program.

Modern day missile defense bears no resemblance to SDI. The current system the United States is building is designed to defend against a relatively small number of missiles—the sort of arsenal a rogue state such as North Korea might possess, and not against Russia's thousands of nuclear weapons.

There are a number of layers of anti-missile systems being deployed under BMD, and it is essential to identify which layer Canada could become involved in. It is essential to consider the layers Canada could politically and logistically become involved in because support or direct involvement of each separate layer carries different concerns, implications, and requirements for participation. Missiles can be intercepted in a number of phases, ranging from their boost phase—that time while the rocket is still running—to the terminal phase, when the warhead plunges back through the atmosphere towards its intended target. The United States is conducting research and development into a number of potential systems in developing their layered defenses, ranging from the highly-mobile theatre boost phase intercept by an airborne laser, to the terminal phase intercept by the Patriot II System. Canada however has only ever considered bi-national involvement in one system: Ground-based midcourse missile defense.

Which Portion of BMD is Canada Currently Involved in and What Portion Did Canada Consider Partnering in?

Canada has only ever considered participation in American missile defense through the Ground-Based Midcourse Defense (GBMD) initiative. Ground-Based Midcourse Defense is a missile defense system that is designed to defend against a long-range missile attack upon the North American continent, and it is managed under the aegis of the US Northern Command (USNORTHCOM).

First, it is important to clarify current Canadian involvement in the system. In February of 2005, immediately following the release of the federal budget, the Government of Canada announced that it would not join Ground-Based Midcourse Defense. Prime Minister Paul Martin stated, "It is in respect of that discussion that we are announcing today that Canada will not take part in the proposed ballistic missile defense system… BMD is not where we will concentrate our efforts. Instead, we will act both alone and with our neighbors on defense priorities outlined in yesterday's budget."[18]

The government's decision to decline direct participation in ballistic missile defense should not be misconstrued as Canada having chosen to avoid involvement in missile defense completely, but rather a decision to refuse a partnership role in GBMD. While Canada is not a joint partner in any form of BMD, Canada is a facilitator and is therefore arguably a participant, to a degree, in the operation of Ground-Based Midcourse Defense through the provision of information critical to operating the GBMD system. Canada is already involved in GBMD through its NORAD relationship. In August of 2004, Canada and the United States amended the NORAD Agreement to allow Canada to provide necessary information for the operation of the NORTHCOM GBMD system through NORAD's critical and well-established ITW/AA function. NORAD is thus involved in the operation and facilitating of GBMD through contributing data essential to the operation of the system, but is not involved in any of the GBMD decision-making processes or the execution phase of the system. Considering Canada's current involvement and support of GBMD through ITW/AA necessitates a careful consideration of what exactly GBMD entails and what the implications of Canadian support are. Furthermore, the current government's decision to refuse direct participation in missile defense is not necessarily a permanent policy. Several Canadian defense groups and senior military members have noted in private that the decision is not necessarily permanent and could be reconsidered (albeit with an increasingly smaller role as time marches forward) and Canada could accept a renewed offer by the United States, if the United States chooses to do so. Regardless of whether or not Canada ultimately decides to remain in its current role or expand involvement in GBMD, the nature of the system must

be clearly explained to facilitate a cogent debate and to understand the effects of Canadian involvement in GBMD on Canadian interests, security and sovereignty.

Ground-Based Midcourse Defense is a system of ground-based interceptors, located at bases in Alaska and California, that are designed to counter a limited Intercontinental Ballistic Missile (ICBM) attack (up to approximately twenty warheads at full capacity) through the execution of a kinetic and exoatmospheric 'kill' of the incoming warhead.[19]

These interceptors are located at two test bed areas in the United States: six are stationed at Fort Greeley, Alaska, with plans for ten more to be installed in the ground there by the end of 2005, and two are currently stationed at Vandenburg Air Force Base in California. There are no plans to add additional interceptors to the Vandenburg site. The test bed concept allows the US to deploy a measure of protection by erecting some preliminary interceptors while continuing to test and improve upon the system. The Bush administration argues that implementing the test bed concept allows the United States to simultaneously address the pressure of passing deadlines for deployment without permanently deploying a premature system.

The ground-based interceptors are comprised of two portions: a launch vehicle and a kill vehicle. The launch vehicle is simply the rocket that propels the interceptor into space at its proper trajectory and speed before separating and dropping back down to earth. These launch vehicles are similar to those used to launch NASA satellites and space stations. The kill vehicle is the active component of the interceptor. It is a six-foot tall concrete-and-metal 'slab' designed to slam into an incoming warhead at an extremely high velocity.[20] In addition to its concrete and metal components, each interceptor has an onboard guidance system that is capable of performing infra-red identification and tracking of the incoming warhead, as well as to receive information from Ground-Based radars to help it adjust its trajectory and directional thrusters to guide it to the target.[21]

The kill vehicle then identifies its target and adjusts its trajectory to perform an exoatmospheric kinetic kill, using 'bullet-hitting-a-bullet' technology. It sounds alarming but it is actually quite safe. Bullet-hitting-a-bullet technology simply means that the kill vehicle (an Exoatmospheric Kill Vehicle, or EKV), engages the warhead with the express intent of destroying it through collision. A kinetic kill refers to the demolishing of an incoming warhead through velocity alone, not surprising when one considers the force of impact between the two objects traveling at approximately 18,000 miles per hour.[22] Considering the devastation that occurs in a car accident at a mere hundred kilometers per hour, and its not hard to imagine how the interceptor vaporizes the warhead on impact at such a phenomenal speed. There is no detonation of the incoming warhead and the warhead's

payload is not released or activated. It is destroyed upon contact. The exoatmospheric portion of the kill refers to the fact that impact between the warhead and the kill vehicle occurs at about 250 kilometres above earth's surface, putting the collision outside the earth's atmosphere.[23] One of the benefits of an exoatmospheric kill is that it allows any remaining particles of the warhead and interceptor to burn up on re-entry to the earth's atmosphere, rather than destroying the weapon in the earth's atmosphere as boost-phase and terminal missile defense systems do.

Extensive concerns have been expressed by many scholars and peace activist groups that GBMD will require Canadian territory, or that Canada will have to field interceptors to be protected under the GBMD system. Ernie Rehger of Project Plougshares argues in his paper "Reviewing BMD Options and Implications for Canada" that Canada would be asked to host interceptors. Rehger theorizes that in order to receive coverage under the American BMD system, Canada would have likely have to field BMD interceptors, or risk being abandoned during an ICBM attack as American forces use American based interceptors to protect the United States.[24] Mel Hurtig, author of Rushing to Armageddon, has also expressed repeated concern about the United States "secret plans" to station GBMD interceptors on Canadian territory.[25] Michael O'Hanlon of the Brookings Institute asserts, however, that there is absolutely no evidence to support claims that the Pentagon would want or need to use Canadian territory in the GBMD system. Critics of the system base their trepidations about Canadian interceptors on the scientifically incorrect assumption that Americans will want to use the Canadian North to station interceptors, as it would offer the maximum defense against incoming ICBMs from Middle Eastern states, such as Iran. Scientifically speaking, the Pentagon does not require Canadian territory for any elements of the missile defense system, interceptors or otherwise. A number of sources document that additional US interceptor sites in Maine or North Dakota would be equally efficient as Canadian sites in terms of providing a rapid, effective and capable defense against Middle Eastern threats.[26] The Americans have discussed stationing a third test bed in Eastern Europe to defend against the Middle Eastern threat, but the use of Canadian territory is not required for an effective defense.[27]

A careful survey of available literature, government documents and expert analysis reveals that no evidence exists to prove that the use of Canadian territory for interceptors has ever been a focus of discussion. The fact is, discussions about the use of Canadian territory for interceptors are not, and have never been, underway because it is simply not necessary to do so. Oddly, Rehger recognizes this and contradicts his earlier arguments, stating, "He [Bush] certainly doesn't need Canada's technical, territorial, or financial help…"[28] The United States could conceivably request Canada the use of Canadian territory in the future; however,

it has not been a part of discussions to date and is not required for an effective defense. There is also no evidence to support Rehger's claim that Canada would be required to field interceptors to receive protection under the GBMD system. Requiring Canada to host interceptors in order to qualify for protection under the system undermines the basic fundamental logic and principles of continental defense – the recognition of North America as a single theater of operations. The Ogdensburg and NORAD agreements (which will both be further discussed later in the paper) were founded on the belief that Canada and the United States faced a common threat so great that they had to cooperate to defeat it and that a single rationalized, effective defense was more important than the details of which country provided which resources.[29] For the United States to require Canada to host interceptors in order to be protected under the system would undermine the very basis of NORAD, something neither Canada or the United States has an interest in doing.

The United States has no interest in allowing Canada to be struck by a ballistic missile. A devastating strike on Toronto would not only damage American economic interests through shutting down critical Canadian-American trade, but would also risk devastating radiological contamination of North Eastern American states such as Ohio and New York. Radiation does not recognize the 49th parallel as a border and it would make no military, economic, or political sense to allow Canada to be struck by an ICBM. Finally, Rehger's argument about the necessity of Canada hosting missiles is contradicted by the functioning of the GBMD system. Interceptors are launched relatively early into an ICBM's flight, once the ITW/AA process confirms the missile poses a threat to North America. The nature of the GBMD system is such that the missile is shot down when it is deemed to be a threat to North America and before its exact target is known.[30] The US could not know if the missile was aimed at a Southern Canadian city or a Northern American one and, out of prudence, would have to shoot the missile down. Over 90% of Canada's population lives within 160 kilometers of the US border, meaning that NORTHCOM would have to assume the vast majority of missiles heading for southern Canada were possibly targeted at the US.[31]

It is interesting to note that in the face of concerns about American lust for Canadian territory, the Pentagon has not requested that Canada upgrade existing radar sites. It has, however, requested this of the Danes and British, both of whom cooperated with the Americans. The Pentagon's Missile Defense Agency has deliberately developed GBMD to function without Canadian participation or the use of Canadian territory in order to allow the United States to develop missile defense for its own national protection, irrespective of Canada's final decision on the issue.[32]

A great deal of confusion surrounds the issue of GBMD's interceptors, with the main confusion emanating from what actually constitutes an interceptor and how the interceptor destroys the incoming warhead. Fears of nuclear explosions in space and heavily armed missiles are the predominant concerns about GBMD's interceptors, but upon closer examination the fear is unfounded. GBMD interceptors destroy through velocity alone; they do not carry any form of warhead, incendiary or explosive device.[33]

Is Canada Contributing to the "Weaponization of Space"?

Many groups in Canada that oppose missile defense argue that participation in GBMD is tantamount to, or will lead to, the weaponization of space, violating Canada's traditional policy of opposing the placement of weapons in this last frontier. Mel Hurtig, writes that all US missile defense plans are ultimately designed with the goal of weaponizing space and therefore Canadian agreement to any kind of missile defense is tantamount to complicity in weaponizing space.[34] Hurtig claims that, "So-called US missile "defense" system is really about establishing a US first-strike-from-space capability," and that "numerous official US documents reveal their plans to 'dominate space' and place deadly lasers and nuclear weapons in space."[35] He goes on to argue that Canadian politicians want to join this global, space-based nuclear strike capability and therefore Canadian involvement in BMD is tantamount to Canada launching nuclear weapons into space. Clear logical fallacies exist in the GMBD equals the weaponization of space arguments including several very tenuous links between unrelated US documents in an attempt to reveal a conspiracy, not to mention in Hertig's particular case a suspicious absence of any footnotes, endnotes or sourcing. Regardless of the reliability of the sources or the strength, coherence or accuracy of Hurtig's particular comments, concerns about GBMD contributing to the weaponization of space must be addressed due to their dominance in the debate and implications for Canadian policy if proven correct. The majority of arguments opposing Canadian participation in GBMD are based in the assumptions about GBMD contributing to the weaponization of space and vehement opposition to that concept. Canada has a clear policy stance against the weaponization of space and multiple polls demonstrate that Canadians widely oppose the idea of placing weapons in the final frontier, but the question remains: does participation in GBMD contribute to the weaponization of space and could participation in the system draw Canada into other space-based missile defense systems? In light of the vocal dominance of the anti-weaponization of space lobby, current Canadian policy and apparent public opinion, it is essential to examine whether or not Hurtig and his fellow critics are correct that GBMD does or could involve Canada in the weaponization of space.

A great deal of the opposition to Ground-Based Midcourse Defense stems from the deliberate blurring of the lines between the militarization and the weaponization of space on the part of missile defense opponents. The militarization of space began when the Soviet Union launched Sputnik in 1957, and it is not prohibited by any international agreement or Canadian policy. Militarization of space includes the use of space-based assets for communication, surveillance, navigation (such as the Global Positioning System), weather reporting, etc. Weaponization of space, on the other hand, involves the deliberate placement of weapons systems in space for the purpose of destroying other space-based assets, or targets on the earth's surface.[36]

No new weapons precedents will be established by participation in GBMD. The system will utilize the sensors located onboard the existing Defense Support System (DSP) constellation of satellites to warn of a ballistic missile launch.[37] The DSP system is the same system Canadians and Americans have been using since 1970 to fulfill NORAD's most critical mission, that of ITW/AA. In the near future, the DSP system will be replaced by the Space-Based Infra-red High Satellite constellation, which will provide improved early warning information to NORAD, and it will also assist with target acquisition for the EKVs.[38] Participating in GBMD in no way contributes to the weaponization of space, as it places no weapons systems in space, only upon the earth's surface.

Canadian policy recognizes the distinction between the weaponization and the militarization of space as is evidenced by Canadian participation in numerous international agreements prohibiting the weaponization of space, while the Canadian Forces (CF) simultaneously access the advantages space-based assets offer the modern soldier.[39] Canadian civilians also benefit from space-based military assets on daily basis. Canadians rely on the military system of GPS satellites to fly airplanes, navigate using onboard computer systems in their cars and even to make a simple ATM transaction to buy dinner (ATMs rely on GPS timing signals to remain synchronized). Canada's critical infrastructure system is another example of the essential role space-based assets Another example of Canadian reliance on space-based assets is revealed by considering Canada's critical infrastructure system. The current space architecture forms much of Canada's critical infrastructure system that Canadians rely upon to survive in emergent scenarios to provide critical services.

Historically, Canada has consistently been involved in defense space projects whether indigenous; such as studies of the atmosphere, ballistic research and development and satellite design and construction of the 1950s, or through American assets and projects, typifying the 1980s and 1990s.[40] There are many modern examples of the Canadian government utilizing space-based assets for military

purposes. During the 1999 Kosovo air war, Canadian CF-18 Hornets were responsible for dropping 10 per cent of the total attack ordinance delivered in the form of Precision Guided Munitions (PGMs).[41] These so-called 'smart' bombs allowed the CF to engage in highly specific and accurate targeting, thereby minimizing the loss of innocent life. Canadian pilots relied upon satellite reconnaissance, as well as intelligence assets located on the ground, and that obtained from actual area flyovers to accurately select targets for bombing. Satellite weather information further increased accuracy by providing pilots with the fullest possible awareness of factors such as wind or cloud that may influence their flight or ordinance drop. Without access to this imagery, the Canadian mission would likely have been less accurate and would have probably generated higher rates of collateral damage.[42]

Canadian Forces involved in the War on Terror make extensive use of satellite communications to receive orders from their commanders, to download lists of suspected terrorists while performing interdiction operations, and to navigate across remote areas, using GPS systems to hunt down Taliban and Al Quaida fighters.[43]

Project SAPPHIRE is proof that the Canadian government considers space-based assets critical to defending Canada's national interests. SAPPHIRE is a $C 66 million spy satellite scheduled for launch in the 2009-2010 time-frame, that is designed to provide the Canadian government with situational awareness of man-made objects in medium-to-high orbits of outer space.[44] SAPPHIRE will function in support of DND's space surveillance mission to monitor potential space threats, including detecting foreign satellites spying on Canadian troops or territory.

SAPPHIRE offers the government two distinct advantages – an independent ability to monitor objects in space, and a way to 'keep a Canadian foot in the rapidly- closing door' of access to American space operations. Canada will have sovereign access to space information for the first time, thanks to this 32-inch satellite, which will beam its information directly into a Canadian control station.[45] That information will then be forwarded to be used in support of NORAD's missile warning mission. SAPPHIRE will offer a Canadian feed from the Space Surveillance Network (SSN) for the first time, making space surveillance and early warning a de facto bi-national operation, instead of NORAD relying upon purely American-originated information.

SAPPHIRE offers the additional benefit of providing access to and knowledge about American space operations through participation in the SSN, an important step in circumnavigating the increasingly-protectionist tendencies of Pentagon policies. Evidence of the American preference to keep space operations to itself

can be found in the realignment of the US command structure in 2002 under the Unified Command Plan (UCP).[46] The UCP mandated that Space Command (USSPACECOM) should move from its traditional headquarters at Colorado Springs, where it shared a commander with NORAD, to Nebraska, where it was merged with US Strategic Command (USSTRATCOM), the command in charge of American strategic weapons. According to Jim Fergusson, Director of the Centre of Defense and Security Studies at the University of Manitoba, severing the "organic link" between NORAD and SPACECOM was a clear signal that the Americans wanted to keep weaponization of space issues, and more arguable space issues in general, to themselves.[47] NORAD insiders have been whispering about the increasing difficulty in accessing information about US space operations for the last five years, a trend that has been magnified since USSPACECOM moved and Canada lost almost all of its remaining access; access that had existed as a by-product of the previous co-location of the USSPACECOM and NORAD headquarters facilities in Colorado Springs. There are still ten Canadians active in Air Force Space Command, which used to be a subset of USSPACECOM, and is now a subset of USSTRATCOM.[48] However, the level of Canadian participation in this Command is nowhere near where it was in the 1990s, when a certain Canadian general was jokingly-reminded that the purpose of the Canadian presence at NORAD was not to infiltrate USSPACECOM![49]

This trend of distancing Canada from space operations is disturbing, because it is in Canada's national interest to remain at the discussion table in order to maintain access to information about American plans. It is unrealistic to think that Canada would be able to stop the United States from deploying space-based missile defense in the future, should the Americans believe it is in their interest to do so.[50] A 'seat at the table,' however, would provide some level of influence, and, more importantly, it would provide insight into American plans and it would allow Canada to react before it performed a reactionary whiplash to a fait acompli.[51] Given the American desire to keep space operations purely American, it is really nothing more than a form of fear mongering to declare that the United States would ask for Canadian participation in a US space-based missile defense program. The Pentagon is well aware of Canada's views on weaponizing space, and, more importantly, it is not in American interests to involve third-party countries in such a sensitive arena. There is no evidence of an American desire to create a multinational 'coalition of the willing' with respect to weapons in space. If the Americans ever do weaponize space, they will seek dominance, not burden sharing.[52] The Americans neither want nor need Canadian help with their space research.

It should also be of comfort to many Canadians that any real effort to deploy space-based missile defense is many years from fruition. The technology, at the

time of this paper, is unreliable and unproven, specifically to the degree or accuracy that US Defense Secretary Donald Rumsfeld has specified—100% accuracy. The Bush Administration closed the space-based missile defense office in the Missile Defense Agency when it first came to power in 2001 because the technology was considered too futuristic and unproven to warrant any major effort. The proposed Fiscal Year 2006 budget holds a drastic funding cut in for missile defense. The strategy appears to be one of freezing one program—space based missile defense—in favour of keeping other more proven, reliable and developed systems ones alive. It appears the Bush administration is willing to sacrifice space-based missile defense in favour of ground and sea based systems, at least for the present. The Bush administration's requested defense budget for Fiscal Year 2006 will slash more than $1 billion dollars of funding from the Missile Defense Agency and an addition $800 million in FY 2007, with the majority of the cut targeted at the space-based Kinetic Energy Interceptor (KEI).[53] The KEI is the most developed form of space-based missile defense and rationale for the development of a space-based test bed, a cut to the KEI program renders direct funds to space-based missile defense to $10.5 million per year.[54] Despite these cuts, the Pentagon will continue to receive indirect funding for space-based missile defense, primarily through research related elements, such as the Near-Field Infrared Experiment (NFIRE), which is scheduled to receive $68 million per year.[55] NFIRE will provide an enhanced study of rocket plumes from space and possibly carry a space-based kinetic kill vehicle to be used in missile defense or anti-satellite (ASAT) activities. Overall missile defense and particularly space-based missile defense still represents a tiny portion of the total US defense budget considering the entire BMD budget accounts for only 3 per cent of the total US defense budget. If funding can be viewed as a commitment to a system, then the lack of funding and development of space-based missile defense is telling—this type of system is a long way off and low down on the list of priorities. Space-based missile defense is nothing more than a research and development project at this time. It may or may not be deployable one day, but either way, it will be a purely American initiative that Canada will not be asked to join, and will have no ability to prevent.

US Command Structure and the Slippery Slope to Weaponization of Space

A great deal of apprehension swirls around the concern that Canada may now agree to support or participate in a limited, ground-based system and find itself trapped in a space-based system that Canadian policy clearly forbids (assuming that space based system constitutes the weaponization of space). To suggest that

Canada could be tricked or trapped into any system that counters the explicit Canadian position on the issue would seem to provide an unfounded critique of the intelligence and capabilities of Canadian politicians, bureaucrats and military brass in pursuing Canada's national interests as well as Canada's legal right to withdraw from agreements which have shifted away from their initial incarnation without explicit approval of all parties involved. Apart from the deeply negative assumptions about Canada's consciousness and capabilities, the argument that Canada could find itself trapped in a space-based missile defense system belies a deep misunderstanding of the nature of the US command structure, as well as the role and structure of the system. Ground-Based Midcourse Defense is designed to protect only North America and is therefore not a space-based system that would be assigned to a command with space or global responsibilities. Canada is not party to any American command with global or offensive capabilities and as such an explicit decision to join would be required, as well as American consent for Canada to join. The nature of the US command structure would not allow Canada to accidentally join space-based missile defense because of the way command missions are assigned, an issue discussed in depth below.

Linking command and control of a missile defense system to space-based operations offers compelling aesthetics, a seemingly contiguous and therefore logical explanation of the convoluted dynamics of command, control and mission in the US command system. However upon careful examination it is revealed that there is no automatic link between command and control and the execution of missile defense. First, an examination of the current system will reveal that Canadian support and de facto participation in GBMD will not result in automatic participation in space-based missile defense due to the architecture of the US command system. Second, the tenuousness of linking command and control in general to the execution of any specific mission will be discussed.

Currently, Ground-Based Missile Defense is assigned to Northern Command (USNORTHCOM), the American command tasked with homeland defense and liaising with civilian authorities to coordinate emergency response in the event of a terrorist attack. USNORTHCOM is exclusively American, unlike its bi-national roommate NORAD, and the two commands share Cheyenne Mountain as their operational headquarters. The Department of Foreign Affairs acknowledges the overlap between NORAD and USNORTHCOM missions stating.

> *Significant overlap exists between NORAD's threat tracking and assessment mission and the missile defense mission assigned to the US-only Northern Command (NORHTCOM), which is collocated with NORAD in Colorado Springs. Many US NORTHCOM personnel,*

including the commander, are at the same time 'double-hatted' as NORAD personnel.[56]

Current Canadian support of missile defense exists through the Integrated Tactical Warning and Attack Assessment function, performed in the Missile Correlation Center (the MCC, formerly the Missile Warning Center) of Cheyenne Mountain as a NORAD mission. The NORAD Americans performing this mission are also double hatted as USNORTHCOM utilizing the ITW/AA information to execute a USNORTHCOM response to threats, in particular ICBMs as the MCC is also the USNORTHCOM GBMD execution center, and the GBMD operator responsible for launching interceptors is located within the MCC at all times to reduce potentially devastating logistical delays, ensuring rationalization of command structure. ITW/AA informs missile defense operators of when an attack is occurring and provides details of the nature of the attack, including the speed, trajectory, number and target of the incoming warheads. These are all critical factors in the decision making process to determine the nature of the response including how many interceptors need to be launched to effectively counter the attack, the trajectory interceptors should take, and the location interceptors ought to be deployed from. The provision of NORAD ITW/AA as facilitating information for the missile defense mission is the only link that exists between Canada, USNORTHCOM's GBMD, and NORAD. Canadians are not participants in a new command or subordinate to any American command. They also continue to perform the same function they have for decades, only now they share the information produced by ITW/AA with one more command. Canadian participation in NORAD and its basic functions does not, and has never, constituted potential forced involvement in any sort of space-based defensive or offensive system. Provision of information to a command executing a ground-based system does not constitute forced participation in some future space-based system. Ernie Rehger, Director of Project Ploughshares—a group explicitly opposed to missile defense—acknowledges the falsity of implying that participation in a NORAD mission is, or could ever be, tantamount to participation in space-based missile defense. He states that, "It is highly misleading to confuse air-defense and missile defense in space."[57]

Critics of Canadian participation in missile defense are not sated by the argument that current Canadian support of missile defense via ITW/AA is the continuation of a previous mission with an additional client rather than a new mission altogether. Some critics, such as Mel Hurtig, argue that any future increased participation in missile defense will place Canada in a position that forces it to participate in space-based missile defense.[58] The structure of the US command system suggests, however, that even with greater participation in a ground-based

system, Canada would not be at greater risk for being trapped into a space-based system than it is now through the ITW/AA mission of NORAD or, in the future, possibly USNORTHCOM.

Due to the nature of the GBMD system, a future bi-national missile defense effort would be located in one of two commands: USNORTHCOM or NORAD. GBMD is a purely defensive system and therefore must be assigned to a defensive command, limiting options. The second limiting factor on GBMD is that it is only capable of defending continental North America, requiring it to be assigned to one of the homeland defense commands. Finally, it is an aerospace mission, requiring it be assigned to a command that is dedicated to the explicit defense of North American aerospace. This leaves only one option: NORAD. As discussed earlier, GBMD was not assigned to NORAD but rather to USNORTHCOM. The reason behind this decision was that Canada had not yet yielded a decision on direct and public participation in missile defense. GBMD, a purely US program, could not be assigned to a fully bi-national command in which one of the participants had not agreed to the system. Instead, GBMD was assigned to USNORTHCOM as the next logical recipient of the mission—USNORTHCOM was collocated with NORAD addressing logistical and time constraints of relaying ITW/AA information from NORAD to USNORTHCOM for GBMD's execution. USNORTHCOM also provided the most appropriate home for GBMD next to NORAD based on its mission: homeland defense in all three theaters of air, land and sea and responsibility for all of North America, including Canada and Mexico.

Based on the above information about the nature of GBMD and suitable commands for the mission, there are only two options for which a future bi-national ground-based missile defense could be placed and not put Canada at risk for the weaponization of space. The first scenario would see GBMD remaining a Northern Command mission, requiring a Canadian presence at Northern Command beyond the current liaison Bi-national Planning Group. The extent to which the US would be willing to restructure USNORTHCOM in order to build a fully bi-national command is debatable; however, USNORTHCOM would not need to become fully bi-national in order for Canada to participate in missile defense as a sovereign country. There are a range of participation options that could be considered to facilitate Canadian participation in missile defense ranging from full bi-national integration of the command, to bi-national cooperation on individual command programs such as missile defense. At a maximum, the entire command would transform into a bi-national NORAD type model, likely consuming NORAD in the process to avoid duplication of mission. This model would also likely include expanded continental defense in the areas of maritime and land

defenses, as well as coordination of disaster response—all expansion issues currently being considered by the Bi-national Planning Group in Colorado Springs.

The minimalist option for participation, possibly a more plausible model given Northern Command's already established role in civil defense coordination with US agencies as well as time and resource constraints that would be stretched by full bi-national expansion, would be to transfer NORAD's ITW/AA mission to USNORTHCOM. In this model, NORAD Canadians working in the Missile Correlation Center would also become USNORTHCOM Canadians responsible for executing the GBMD mission. This option would also allow ITW/AA to remain in the same location, providing the same function, but involving Canadians with new responsibilities. Essentially, this minimalist opt-in plan would reverse the current situation of USNORTHCOM Americans double-hatting as NORAD officers, to Canadian officers double hatting. This is the most probable configuration as it would involve the fewest changes, expenses and growing pains. In either of the above Northern Command scenarios or any of the possibilities existing in the spectrum between these two extremes of USNORTHCOM participation, Canada would not become involved in space-based systems. USNORTHCOM deals only and explicitly with homeland defense and has no mandate to operate abroad or wage offensive capabilities, both of which would be required to field a space-based missile defense system (see further explanation below).

In the second scenario, GBMD would be transferred to NORAD, restoring the command's mission of aerospace monitoring and defense (now against a full range of threats, including missiles). In this case, NORAD's previous North American aerospace mission would remain the same, with the additional capability to defend against missile attacks on North America. NORAD's theater of operations and area of responsibility would not shrink or grow, maintaining NORAD as a purely North American command. Furthermore, the addition of ground-based missile defense would maintain the role and capabilities of NORAD as defensive, not offensive. This is because GBMD's interceptors cannot be used in any sort of offensive fashion as discussed previously. USNORTHCOM Americans would continue to double-hat as NORAD Americans in the Missile Correlation Center and Canadians in the MCC would remain NORAD Canadians, however with a new mission, the execution of missile defense.

Two factors must be carefully considered to determine whether or not ground-based and space-based systems could be collocated in a single command, placing Canada in danger of participating in weaponization of space. The first factor that must be considered is the nature of ground-based missile defense as opposed to space-based missile defense including functional and geographic similarities and differences to determine whether or not the two would likely be collocated.

The second factor that must be considered is the structuring of the US command system—command capabilities and requirements—that dictate which missions are assigned to which commands. Carefully examining the nature of GBMD as compared to space-based systems as well as considering the possible commands that the system could be assigned to (given varying levels of Canadian involvement in GBMD) will clarify whether any incarnation of Canadian participation in a ground-based system could result in the country being trapped in a program of space-based defense.

The differing natures of ground-based defensive and space-based offensive systems place different requirements and demands on the command responsible for each that may be mutually exclusive. In this case, the two systems could not be contained by the same command. The nature of GBMD is defensive and limited to North America, while space-based missile systems are global and frequently considered to be strategically offensive. The nature of space-based missile defense must be carefully examined to determine whether or not it actually is functionally and geographically different from GBMD and, therefore, whether or not it may be placed in the same command as GBMD. This is important as it influences the argument that participation in GBMD would see Canada sucked into the weaponization of space.

Space-based missile defense is comprised of a range of mechanisms to facilitate boost-phase intercepts, most prominent among the options are space-based lasers and space-based kill vehicles (launched from space-based platforms). Boost-phase missile defense is difficult to discuss, because scientific research on the subject is extremely preliminary. It is not yet known which, if any, space-based mechanisms present legitimate and viable options for space-based missile defense and which are merely futuristic dreaming. Regardless of the mechanism used to negate the launching missile, it is accurate to describe boost-phase missile defense as a form of BMD that shoots a launched missile down while it is still in the boost phase (before the missile's rocket has burned out or separated from the warhead).[59] It is extraordinarily difficult to predict a missile's target in the boost phase because the arch, or the trajectory, cannot yet be calculated, making any interception of the missile a questionable defensive action. Space-based, boost-phase missile defense offers two major advantages over other types of missile defense (ascent, midcourse and terminal): the ability to preempt countermeasures and the creation of an additional layer of defense in a layered missile defense system. Countermeasures present the most significant challenge to midcourse missile defense. The very characteristics that make midcourse BMD an attractive option also render the system vulnerable to countermeasures: the length and predictability of an incoming warhead's flight path.[60] The midcourse of a ICBM's trajectory is the longest and most predictable phase of flight meaning intercep-

tors have the best chance of accurately predicting when a warhead will be in a particular location and arriving in the same location at the same time to destroy it.[61] The length and predictability of the flight also offers the longest amount of time in the flight path for the deployment of various countermeasures designed to counter the predictably of the flight path and confuse or overwhelm interceptors with devices such as Mylar balloons, decoy warheads and the release of multiple reentry vehicles. Boost-phase missile defense circumvents these challenges by shooting the missile down before it has the opportunity to employ countermeasures.[62] The second advantage of boost-phase missile defense is the additional layer of defense and therefore security it adds to the type of layered BMD system the Bush administration is pursuing. The earlier a missile is targeted by interceptors, the better the chances of defending against it with back-up mechanisms if initial measures fail. The layered defense system is designed to exploit different vulnerabilities and overcome challenges posed by ICBMs in each phase of flight, the addition of one more layer offers an additional layer of insurance.[63]

The difficulty inherent in boost-phase BMD is that while an early intercept increases the chances of killing an incoming missile, the ICBM is negated before its target can be determined, making the shoot-down a strategic decision rather than a defensive one. The ability to shoot down any nation's missile at any given time, regardless of the target suggests that space-based missile defense could be perceived by adversaries (or allies) as a strategic offensive system, rather than a tactical defensive one. Space-based systems negate a weapon's delivery system before the purpose or target of the weapon's deployment can be determined and therefore cannot be considered a defensive system, as the criteria for self-defense have not been met, primarily proving that one is the intended target of an impending attack. Space-based missile defense fails to meet the criteria as a homeland defense mission if it cannot be proven to be purely defensive, and in fact, could even be used offensively to strike missiles on the ground before they are launched and pose a threat (this is a particular concern for space-based laser boost-phase technology). Whereas GBMD can only provide defense against an attack on the homeland, space-based missile defense has the ability to deprive other countries of the right to defend their territory, and the ability to attack and deter through preemptively destroying delivery systems, rather than simply negating an established attack already in progress.[64] Laser space-based systems in particular, are considered particularly worrisome in terms of defining their nature as offensive or defensive because they are capable of shooting down an unlimited number of missile launches through repeated firing of energy, a rechargeable source of ammunition. Laser space-based boost-phase missile defense, if successfully developed, could negate countries' entire arsenals before a missile even breaks the stratosphere or even leaves the ground. In other words, space-based

missile defense can destroy weapons in a pre-emptive strike before they are employed in an attack, an aspect of the system which is in no way defensive, a characteristic unique to space-base systems.

Space-based missile defense is, by its very function, global. In order to shoot down a missile in the boost phase, space-based assets must be located above or very near potential threats. The laser or kill vehicle's requirement to intercept the missile so early in its flight path requires the space-based capabilities to be in geosynchronus orbit near the launch point (of any suspected adversaries).[65] GBMD's kill vehicles, by contrast, are located only in the continental US, making it a homeland, rather than global, system.

The American command structure is built on a system of geographic and functional commands, meaning missions are assigned according to their geographic location and their function. As demonstrated above, ground-based and space-based missile defense systems are geographically and functionally different. Space based systems are global in location and execution and arguably strategically offensive. GBMD is located on and defends only the homeland. The GBMD system can only be used to defend against a confirmed attack in progress making it defensive. If the usual pattern of logic is followed in mission assignment, the two missions will not only be assigned to separate commands, but completely different types of commands. Canada's involvement in a defensive, North American command along the lines of USNORTHCOM or NORAD would not result in an automatic link to all other missile defense commands, especially space-based ones. GBMD will be tasked to a defensive homeland defense command, while space-based missile defense will be tasked to a global, strategic command – most likely USSTRATCOM.

United States Strategic Command is the command tasked with space force support, space force enhancement, space control and space force application.[66] The official mission of USSTRATCOM is to:

> *Provide the nation with global deterrence capabilities and synchronized DoD effects to combat adversary weapons of mass destruction worldwide. Enable decisive global kinetic and non-kinetic combat effects through the application and advocacy of integrated intelligence, surveillance and reconnaissance (ISR); space and global strike operations; information operations; integrated missile defense and robust command and control.*[67]

USSTRATCOM's role as the command responsible for global strategic strikes and military space operations in the form of space control and space force application as well as the explicit integrated missile defense duty suggests the

command could be chosen as a logical home for space-based missile defense. It is important to note that in many ways USSTRATCOM is an umbrella command, which has absorbed many smaller commands with space missions, such as Air Force Space Command, in the interests of rationalizing command structure under the Unified Command Plan. Given that USSTRATCOM now houses most commands with a space mandate and STRATCOM itself is the command responsible for global, strategic, space missions, it is the most likely home for space-based BMD.[68] The inherent differences between the nature and function of space-based missile defense and GBMD will see them assigned to separate commands under the US command system. The location of the two systems in different commands should allay the fear that participation in GBMD will result in Canada being forced to participate in space-based missile defense, an activity that will be undertaken at a completely separate, American-only command, unrelated to NORAD, USNORTHCOM or Canada. GBMD a ground-based, homeland defense system will remain at USNORTHCOM or possibly shift to NORAD, while space-based BMD will remain with commands with global, strategic space responsibilities like USSTRATCOM and its subordinate Air Force Space Command.

An important point of clarification arises in regards to the implications of USSTRATCOM's integrated missile defense mission for Canadian participation in GBMD and worries about subsequent Canadian weaponization of space. Strategic Command's integrated missile defense mission is often confused with command over all BMD systems leading to fears that even a bi-national GBMD under the auspices of NORAD or USNORTHCOM could be absorbed by Strategic Command. USSTRATCOM will provide operational support to all missile defense systems, including GBMD, through providing raw data on launches and the trajectories of man-made objects in space. However, this mission is no different from USSTRATCOM's current provision of support to DSP satellites responsible for transmitting information to NORAD to facilitate the ITW/AA function (USSTRATCOM provides the information officially, the actual DSP satellites are operated by Air Force Space Command). Operational support refers to providing this same sort of information to theatre or strategic missile defense systems, not command or control. Operational control and command of each missile defense system will remain with its designated command authority.

The issue of current Canadian involvement with USSTRATCOM is a source of further confusion on the issue of GBMD. As previously discussed, under the NORAD agreement Canada participates in ITW/AA which receives information from USSTRATCOM controlled DSP satellites and can be passed back to Strategic Command in ITW/AA format.[69] To construe Canadian participation through NORAD's ITW/AA role as de facto participation in Strategic Com-

mand is a misinterpretation of the situation. Canada merely accesses strategic command's resources in the same way that multiple other unrelated American commands do every day. Another potential area of confusion in the realm of ITW/AA and USSTRATCOM is NORAD's provision of ITW/AA to USSTRATCOM—information necessary to initiate the decision making process of civilian leadership that could lead to retaliatory nuclear strikes. The mere provision of ITW/AA is not tantamount to Canadian involvement in strategic command or its mission of nuclear retaliation; to claim it is ignores the history of North American continental defense. Since NORAD was formally established in 1958, it has been responsible for providing respective National Command Authorities with the information necessary to react to a threat, including the shooting down of incoming cruise missiles and providing information necessary to facilitate US authorities decision on the launching of retaliatory strikes.[70] Providing NORAD information to USSTRATCOM that could be used in planning a nuclear strike is unrelated to missile defense, and it has been an integral part of NORAD's function since the Command's inception. Canadian participation in missile defense would likely not change the nature of this function. Several prominent scholars, including Joseph Jockel, contend that NORAD was formed with the explicit and primary intent of protecting the American strategic deterrent forces, rather than the provision of protection to civilian population centers. In this light, the possibility of Canadians in NORAD providing information to STRATCOM knowing it could be used for the purposes of a retaliatory strike is hardly revolutionary; rather, it is well-established Canadian policy.

Is BMD Militarily Necessary?

Terrorism is, without a doubt, the most immediate and lethal threat to American national security. The sheer number of permutations and combinations of potential devastating asymmetric terror attacks is phenomenal: terrorists lobbing a nuclear-tipped cruise missile at San Francisco; detonating a radio active device stored on a cargo ship in Boston harbour; or, dispatching a smallpox-infected martyr through Manhattan's busy streets during their lunch hour. Canadian critics point out that missile defense would serve no purpose in any of these or many other devastating scenarios, and, therefore, BMD should not be pursued as it is a wasteful and dangerous diversion of resources.

It is true missile defense provides no defense against suitcase bombs, food contamination, or suicide bombings. However, it was not designed to deal with any of these threats. The fact BMD cannot protect against the preponderance of terrorist attacks is a legitimate argument for asserting that it should not dominate the US defense budget. However, it is also not an argument for abandoning long-term plans to deal with potential future threats, such as terrorists armed with

ICBMs, in favour of shortsightedly diverting all resources to immediate threats only.

Canadians are fortunate to have never experienced a significant foreign attack on Canadian soil, a condition that has likely contributed to the sense of invulnerability many Canadians exhibit today. The belief that Canada is immune from attacks or the effects of such attacks drives the line of argument that Canada should not participate in BMD, since ICBMs pose no threat to Canada. Furthermore, opponents argue that the development of a BMD system will generate renewed arms races around the world, resulting in a more insecure Canada than existed before the advent of a BMD system.

It seems implausible that other countries would deliberately seek to strike Canada.[71] However, the Canadian assumption of invulnerability to ICBM attack vastly over-estimates the capabilities of rogue state technology to successfully and accurately strike an intended target. Technological advances have facilitated accelerated and covert proliferation of both weapons of mass destruction (WMDs) and their ballistic delivery systems. That said, the availability of materials and technological know-how is no guarantee of accuracy. Current-day proliferation differs from that of the Cold War in that it is uncontrolled and unconstrained. Proliferation has become horizontal, accelerated, covert and untested, in sharp contrast to the deliberate, overt, vertical proliferation of the Cold War. North Korea, for example, has never tested its nuclear weapons in conjunction with a delivery system, so no one actually knows how accurate or how effective their weapons delivery systems are.[72] It is conceivable that in a nuclear attack scenario, Kim Jung Il could launch a missile at San Francisco, which could then miss and hit Vancouver. Even if Canada was never attacked, a nuclear strike upon the United States would have a devastating impact on Canada – neither radiation nor economic collapse recognize the 49th Parallel as a boundary.

Accepting that Canada would face a risk if the United States came under attack, one might still ask who would be irrational enough to strike the United States? The Americans have always maintained a policy option of responding to a nuclear attack with devastating force. Arguably, the main utility of strategic nuclear weapons lies in the deterrent value of their non-use: that is to say, the threat of use of nuclear weapons is a more powerful negotiating tool than their actual use. After all, it was this constant threat of use that established the concept of Mutually Assured Destruction (MAD), one of the nuclear policy elements that kept the United States and USSR from attempting any preemptive strikes during the Cold War. The reality is that while MAD was a useful concept when it existed between two countries with roughly equivalent arsenals, it does not apply to re-

lationships with a massive nuclear dissymmetry, such as the USA and any rogue state.[73]

While no "rational" (wishing to survive) leader would attack the United States with a nuclear-tipped ICBM, the Americans cannot and will not take the chance of assuming all leaders are rational. The presence of al-Qaeda and various other martyrdom seeking (suicidal in Western terms) terrorists around the world has undermined the very principles of deterrence—fear of retaliation. In the political climate that follows 9/11, the US will be unwilling to risk the scenario of an undeterrable actor possessing a nuclear trigger finger.[74] Even if Americans believe that no one would ever deliberately use a nuclear weapon against their homeland, they will be unwilling to have their foreign policy held hostage by the threat of that use. One can only guess whether the Americans would be willing to risk confrontation with a nuclear-armed adversary such as Iran, a long-time adversary currently in the process of becoming a nuclear state. It may also be that the likely North Korean possession of nuclear weapons has influenced the nature of American policy toward that country somewhat. The possession of a countering missile defense system for the North American homeland significantly diminishes the urgency for such potential confrontations, and is therefore a stabilizing factor.

Participating in GBMD, the most limited of all missile defense systems, will not undermine Canadian non-proliferation policy. Canada is not abrogating any treaties or changing its stance on the unacceptability of nuclear weapons. No matter how much Canadians might wish it to remain a legitimate entity, the ABM Treaty is now null and void, a relic of the Cold War that has been renounced by the Bush Administration. This is hardly a drastic move, since one of the principal signatories, the Union of Soviet Socialist Republics (USSR), has ceased to exist. Also of note, and in spite of concerns prior to the American renouncement of the ABM Treaty, Russia has not even made public comment on the American position.

Evidence suggests that nuclear and ballistic proliferation is occurring independently of any US missile defense system. Evidence of this can be seen in Pakistan's activities, where A.Q. Khan's private proliferation initiatives commenced as early as 1987.[75] North Korea started building nuclear weapons while Bill Clinton was still in power and India and Pakistan appear to be far more concerned with each other than they are with the American missile defense system. North Korea is already capable of striking the United States with an ICBM and multiple other nations are pursuing at least mid to long range ICBM capability.

The proliferation of ballistic missile technology reflects the change that has occurred in the strategic environment.[76] The world is no longer bipolar with two stable and relatively predictable super powers controlling the dissemination of

ballistic missile technology. States are now able to acquire ICBM capability independently and do so for a number of reasons that simply did not exist to motivate them to proliferate during the Cold War. Smaller states are no longer able to rely on a super power to guarantee their security and, as such, must pursue unique national security and deterrence strategies, as well as participate in bids for regional dominance. ICBM capability offers states a way to solve multiple security dilemmas with a single weapons system.

One of the major reasons state actors, especially 'States of concern', pursue ballistic technology is because of the unique international prestige and profile associated with ICBMs. The prestige that ballistic missiles accord stems from their political, military, coercive and technical characteristics. Lieutenant General George E.C. Macdonald argues that it is the unique prestige, deterrence and international profile that states gain from ballistic missile capability that drives proliferation.[77] Even though there are a multitude of weapons that are easier, cheaper and more reliable to develop, states will pursue ICBM capability instead because of the international profile associated with ballistic missile capability.[78]

Robert Walpole, the National Intelligence Officer for Strategic and Nuclear Programs testified to the Senate Foreign Relations Committee that ballistic missiles allow states to achieve three things they normally could not: the ability to deter action or external intervention in state or regional affairs; the ability to constrain conflict; and the ability to inflict a great deal of harm. Furthermore he pointed out, the capabilities, uses and prestige associated with ICBMs mean that states do not need to develop large, accurate or reliable ICBM systems to be able to reap the benefits of possession. This is because the point of developing ICBMs is often not their actual use - ICBMs are equally effective in their threat of use as they are in use.[79]

The National Intelligence Council of the Central Intelligence Agency agreed with the above assessment that the threat of ICBMs is often a more powerful tool than their actual use. A National Intelligence Council (NIC) report stated that in particular Iran, Iraq and North Korea "view their ICBMs more as strategic weapons of deterrence and coercive diplomacy than as weapons of war."[80] States pursuing ballistic missile capability believe that possessing ICBMs will enable them to deter foreign, and more specifically, US intervention.[81] The deterrent of an ICBM threat could have a significant impact on Canada and the United States' ability to realize their foreign policy goals.[82] The ability to deter American intervention in national and regional affairs is cited as the major driving force behind Iran's Shahab missile acquisition program.[83]

Intercontinental Ballistic Missiles clearly have a great deal of prestige, profile and deterrent value associated with their acquisition, but why is that ballistic

missiles have power associated with them that other weapons systems do not? There are four characteristics that give ICBMs their tremendous perceived value: technical, military/strategic, coercive/deterrent, and political. Each of these areas creates a set of drivers that make ICBM acquisition increasingly desirable and explains why they are so valued as tools of leverage in the international system.

Technical Drivers[84]

Intercontinental Ballistic Missiles offer three technical benefits that make them attractive weapons: speed, assured penetration, and military effectiveness. ICBMs travel at a tremendous speed, and once launched onto their course are generally irreversible. Assured penetration is another benefit of using a ballistic missile. ICBMs rate of speed, combined with the current lack of effective countermeasures makes them nearly impossible to defend against. Finally ICBMs are considered to be militarily effective. While rudimentary ICBMs lack precision strike capability, their military targets are generally military bases, cities, or other highly-populated areas where generalized destruction is desired rather than a pinpoint hit. ICBMs are designed to carry warheads which could be armed with nuclear, radiological, chemical or biological payloads. The military effectiveness of an ICBM armed with a nuclear warhead is extraordinarily high as it will completely destroy its target.

Military Strategic Drivers[85]

Psychological effects of ICBM use is a motivating military/strategic driver for ICBM development. ICBMs create an atmosphere of desperation and exhaustion in the areas they attack. Furthermore, the common association between nuclear payloads and ICBMs gives them an additional psychological fear factor, even if the ICBM is only armed with conventional explosives.

Military modernization is another driver for ballistic missile proliferation. A desire for modern forces and the ability to deter against foes and ensure regional dominance or stability has seen the modernization program of militaries like China updating, or in North Korea's case, acquiring ICBM capability. ICBMs are increasingly becoming part of state's military strategy.

Coercive and Deterrent Drivers[86]

ICBM usefulness as tools of coercion and deterrence stem from their military and technical value. The inability to intercept and destroy ICBMs as one could a traditional attack, and their association with a nuclear payload, make them a threat policy makers are more likely to respond to than conventional threats.

Political Drivers[87]

The overarching drive for ICBM acquisition is political and shapes the context for the other drivers. Political power and prestige is derived from ICBM's technical, military and coercive capabilities. In unstable regions of the world, like South Asia, ballistic missiles are of increased value because beyond ensuring state security, they aid in states' bid for regional dominance.

A number of states wish to acquire ballistic missile capability, however some are more determined and advanced in their acquisition programs than others. Iraq (prior to Operation IRAQI FREEDOM), Iran and North Korea stand out on the list of states pursuing ballistic capability as being particularly advanced and determined in their programs. It is estimated that within fifteen years Iraq (previous regime), Iran and North Korea will be able to strike North America with an ICBM.[88] Fifteen years may overestimate the amount of time it will take these states to acquire ICBMs as it is the estimated time required to achieve ballistic missile capability through indigenous programs not direct acquisition.

North Korea currently presents the greatest threat to North America of all the proliferating 'states of interest'. North Korea's ballistic missile program is more advanced and dangerous than other such states. The program is more advanced because of the possession of the Taepo Dong II Missile. The Taepo Dong II is an intercontinental ballistic missile, with a 6,000 km range – making it capable of striking Hawaii or Alaska.[89] The ballistic missile threat from North Korea is considered to be growing. The North Koreans have successfully launched a rocket used to put satellites into space, the same kind of rocket used to launch long range ballistic missiles.[90] This launch not only demonstrated North Korea's ICBM capability, but illustrated a far more advanced ability than the intelligence community had anticipated. Two significant and unexpected elements were demonstrated in the launch: multiple rocket separation capability and a three stage rocket launch, proving the Democratic Peoples Republic of Korea's (DPRK) ballistic missile threat was far greater and more immediate than previous intelligence estimates had indicated.[91]

Missile defense offers a strong economic deterrent to nuclear proliferation in rogue states, as these states would have to invest a massive amount of resources into constructing enough ICBMs to overcome even a limited missile defense system. This could financially exhaust a rogue state before it achieved even a measure of credible threat.

China and Russia remain states of major concern; states who's arsenals the current missile defense system is not designed to counter, save in a situation involving an accident or an unauthorized launch. Both accidental and unauthor-

ized launches are doubtful scenarios in China but much more conceivable in Russia considering the dilapidated systems and command structure as well as the presence of terrorist groups.[92] In spite of the fact that GBMD is not specifically designed to (and furthermore could not) counter the full Chinese or Russian arsenals, there is a significant amount of concern that building the BMD system could lead to an arms race with China and Russia, as well as domino effect regional arms races with surrounding countries. China and Russia are both seeking to modernize their nuclear and ballistic arsenals, not because of missile defense, but from a desire to keep their nuclear capability relevant. In the case of Russia, it need not modernize or produce additional weapons to overcome the US missile defense system. China, has been actively expanding its nuclear weapons arsenal and ICBM capability for a decade, independent of missile defense developments.[93] The presence of GBMD would likely drive China and Russia to keep their arsenals relevant and up to date, but neither would need to engage in an arms race to overcome the BMD system and therefore is unlikely to waste resources on such an effort. Furthermore, both Russia and China are technologically sophisticated enough to posses ICBM countermeasures which could overwhelm the GBMD system.

Ultimately, Canada will face the unalterable reality that the United States has the right to defend itself and will react to threats—real or perceived. Nuclear weapons offer a prestige and weight in the international system that no amount of diplomatic negotiation can trump. The United States perceives missile defense as a response to the modern international environment of accelerated, covert, horizontal proliferation, and for better or worse, Canada will be affected by American plans. Ignoring the 'stampeding elephant' of the world's only hyperpower reacting to perceived threats will not render Canada safe or secure. Canada must recognize and respond to the United States' plans in a way that is considerate and supportive of Canada's national interests.

Will Canada be Asked to Help Fund BMD?

The cost and effectiveness of missile defense are two of the most hotly contested contentions dominating the BMD debate in Canada. Critics charge that GBMD is a multi-billion dollar ticket item, and therefore a project that Canada cannot and should not fund in an era of limited defense budgets and a long list of other socio-economic priorities. Ernie Rehger argues that Canada will be required to fund additional interceptors capable of protecting Canadian territory, requiring a minimum investment of several billions of dollars.[94] Rehger then posits that Canada cannot afford to build these GBMD components, namely interceptors on a limited defense budget that he argues would be better spent on peacekeeping. Rehger's criticisms fit with a larger class of argument against participation

in GBMD: that in an era of terrorism, Canada cannot afford to waste its money on futuristic systems when it should be focusing on port security and foreign aid. These are perfectly legitimate arguments, but they fail to address a critical point: Canada is not and never has been asked for money to fund any form of BMD.

The Bush administration is well aware of Canada's limited resources, as evidenced by criticism leveled at Canada's military spending from American Ambassador Paul Celluci who has repeatedly called upon Canada to increase defense spending. Knowledge and criticism of Canada's military decline and limited defense budget expands well beyond the five walls of the Pentagon and the Oval Office demonstrated by a number of public incidents involving influential media commentators and politicians. The most memorable and oft repeated of such incidents south of the 49th parallel being Pat Buchanan on MSNBC coining the term "Soviet Canuckistan," intended as a slight on Canadian defense spending, capabilities and social attitudes.[95] Knowledge of Canada's limited military finances combined with the current success of the quid pro quo model at NORAD suggests any Canadian future contribution to missile defense could be in the quid pro quo manner of past contributions to NORAD.[96] At NORAD, Canada pays 7-10 per cent of the total operating costs through personnel, not through direct financing. The US provides the majority of resources and the capabilities, and Canada retains 50 per cent of the command and control of this defensive alliance. This set up offers Canada the best of both worlds—access to world class facilities, maintaining sovereign access to threat information and decision making at a very minimal financial price.

Further evidence that Canada will not be asked for a direct monetary contribution is evident in examining Canada's current participation in GBMD. NORAD Canadians presently provide warning of a missile launch and vital tracking information through the ITW/AA function, at no additional cost to the Canadian taxpayer. Directing NORAD Canadians in the Missile Correlation Center to play a role in GBMD would not raise the cost of missile defense, it would simply permit the Canadians present to launch interceptors if an ICBM attack occurred on their watch, rather than simply warn of it.

Will BMD be Effective?

The effectiveness of Ground-Based Midcourse Defense is the topic of heated debates in the United States. Credible scientific organizations, such as the Federation of American Scientists and the Union of Concerned Scientists, have raised serous and legitimate concerns with respect to whether missile defense can work.[97] They point to highly controlled, even scripted tests under unrealistic conditions that still exhibit a 50 per cent failure rate. Prominent scientists, such as MIT's vocal Theodore Postal, worry about the inability of the current system

to distinguish decoys from genuine warheads. This is, indeed, a serious issue, considering that any nation serious enough to contemplate an ICBM attack would most likely account for BMD by adopting some form of countermeasures. The mid-course phase, while it is the longest and most predictable phase of flight for an incoming missile, also provides the perfect environment to deploy countermeasures. Possible countermeasures could include technologies that employ multiple reentry vehicles (MIRVs) in a greater number than the available kill vehicles; the release of decoy warheads to confuse or overwhelm kill vehicles; and propulsion systems onboard the warhead capable of producing an erratic flight path, or a secondary midcourse launch of a smaller warhead. It is important to note that all of these countermeasure technologies are sophisticated and extremely expensive initiatives making them challenging for adversaries to acquire on top of already expensive ballistic and nuclear technology. However, after spending so much money on the weapon and delivery system, a determined antagonist would have no reason not to employ at least basic measures to overcome GBMD and make the nuclear, ballistic investment credible and worthwhile.

The Missile Defense Agency points out that failed tests were the result of minor flaws in already established technology, not flaws in the actual missile defense system. Explanations for failed tests range from clogs in the coolant plumbing, not dissimilar to the type one might experience in the family car's engine, to failure of the booster rocket to separate – the same problem NASA faces in satellite launches. These problems are not specific to GBMD, but rather to components of the overall system such as the launch vehicle. It is correct that all failures thus far have been components of the system, not the system itself; however, it is not necessarily comforting that the system fails repeatedly for any reason – whether those failures be due to a single component or systemic.

Even if the technology cannot accurately distinguish decoys today, it is still reasonable to argue that future developments in radar and in the EKV's infra-red acquisition capabilities will ameliorate the problem and produce a system that can discern a Mylar balloon from a nuclear warhead. This is part of the rationale for developing a test-bed concept for the current GBMD system. The test-beds in Alaska and California allow the US to provide a modicum of defense against immediate threats, while simultaneously continuing to develop the technology, rather than prematurely fielding an under-developed system.

The concerns with respect to the accuracy of current technology are valid, but they are challenges facing the Pentagon, not the Canadian government. As long as Canada is not being asked to develop or fund the system, which is too far advanced and too expensive for our nation to fund at any rate, the shortcomings in the present technology are not issues Canada is being asked to, or will be invited

to, deal with. In time, the technology will likely develop – it is worth noting that the historical average failure rate of all new weapons systems is approximately 50 per cent—and given the resources behind the system and American determination to prevent attacks on the homeland, a strong desire to achieve the most effective technology is certainly present. However, even if the technology faced insurmountable difficulties, the Americans would develop it regardless of Canadian opinion, if it were in their interest to do so. At the end of the day, the United States is responsible for developing its systems of national defense and for being responsible to ensure their effectiveness.

Canadian pundits and lawmakers have no authority to control what weapons systems or national security policies the United States chooses to pursue. As long as Canada is not being asked to fund the system, which it is not, it has no right to instruct the elected members of the United States Congress on how to spend their nation's treasury. One can imagine the outrage in Canada if the situation were reversed based on the indignant, negative reaction to Ambassador Celluci's critiques of the Canadian military as "inappropriate" and "undiplomatic."

What Will BMD's Impact be on Canadian Sovereignty and the future of NORAD?

Historically, Canada has pursued joint continental defense with the United States as much out of security as sovereignty concerns. In 1938 President Franklin Roosevelt swore "the people of the United States will not stand by if domination of Canada is threatened by any other Empire," effectively communicating that the United States would not tolerate Canada being dominated by a foreign power and thereby presenting a security threat to the United States.[98] Recognizing the potential sovereignty concerns presented by Roosevelt's statement and wanting to ally American security concerns, Mackenzie King reassured that "enemy forces should not be able to pursue their way either by land, sea or air to the United States across Canada."[99] This exchange, known as the Kingston Dispensation is one of the first examples of Canada's sovereignty-security dilemma.

In order to respond to American security concerns, while ensuring Canada's sovereignty, Canada began to pursue a strategy of 'defense against help.' Originally conceived as a security strategy for small states, defense against help postulates that in situations of geostrategic interdependence of two militarily asymmetric states, the larger more powerful state will make incursions on the smaller state's sovereignty to the degree to which it perceives the smaller state to be a security risk and therefore a threat to the larger state's interests. In order to prevent sovereignty incursions, the smaller state must adapt a strategy of controlling the larger state's 'help' by demonstrating that it is not a security risk. Help can be controlled by producing unilateral military credibility in the form of independent

capabilities sufficient to satisfy the larger state, or through conjoint efforts to address specific security threats in the form of bi-national military organizations, committees, and commands.[100]

Canada has primarily pursued conjoint defense against help in the form of continental defense. The evolution of Soviet Strategic Bombers and subsequent implications for the importance of Canadian geography drove Canada to pursue military cooperation on a number of fronts to address America's "unhealthy" preoccupation with the North.[101] References by senior American officials, such as Secretary of State John Foster Dulles' statement that Canada had become "a very important piece of real estate" underscores the importance of Canada's geography to US security.[102] Cooperation coupled with the necessity for rationalizing air defense eventually led to the creation of NORAD, successfully reassuring the US of Canada's military credibility while simultaneously maintaining Canadian command of all military assets in Canadian territory.

The core of the missile defense debate is really about maintaining Canada's sovereignty through NORAD. This enduring defensive alliance has evolved significantly since the Command was formally signed into being on May 12th, 1958. Over the years, the Command has taken on additional responsibilities, ranging from aerospace monitoring with the advent of ICBMs, to intra-continental air warning and defense in the post 9/11 era. NORAD is fundamentally responsible for North American aerospace warning and aerospace control. Aerospace warning refers to the NORAD mission of ITW/AA – the process through which NORAD detects, characterizes and warns of potential air breathing (planes, UAVs) or ballistic missile attack.[103] Aerospace control refers to NORAD's mission to monitor and defend against airborne attacks on North America, including both perimeter and internal airspace.[104]

Under NORAD's current aerospace control mission, the Command monitors and warns of impending ICBM attack, but is unable to defend against it. There is an undeniable irony that the Command is able to shoot down a hijacked airliner carrying innocent civilians, but not unmanned nuclear weapons. Lieutenant-General (ret'd) George Macdonald, former Deputy Commander of NORAD, has repeatedly made the argument that NORAD is a logical home for GBMD as it is the natural extension of the aerospace control mission and would parallel the current aerospace control and defense mission.[105] Missile defense is a natural extension of missile warning in the same way that air defense is the logical extension of air warning, a warning-defense partnership the command currently executes. Many Canadians and Americans might be surprised to learn that before the first interceptors were placed in Alaska and California, NORAD could only monitor an incoming nuclear warhead and predict its point of impact. The natural

tendency of most civilians is to assume that their government has some means of defending against missiles and therefore missile defense is unnecessary.[106]

Canadian indecision and American political pressure to erect the system as soon as possible were both factors in GBMD being assigned to USNORTHCOM, as the United States was unable and unwilling to wait for a Canadian decision on the issue.[107] In August 2004, Canada amended the NORAD agreement to allow for Canadian support of GBMD through NORAD's ITW/AA mission. Essentially, this amendment was a band-aid solution to prevent Canada from being physically in the way of the American ability to utilize missile defense, which NORAD Canadians were previous to this decision.[108] Previous to the decision to act in support of missile defense, a Canadian on duty during an ICBM launch would have been technically unable to provide essential information for the operation of GBMD to American officers in the MCC. The possibility of the United States being deprived of ITW/AA information because a Canadian was unable to pass information on in a crisis is a scenario that would have undoubtedly seen Canada unceremoniously removed from ballistic missile warning function as it was transferred to NORTHCOM.[109] In the days preceding the American election, the Bush Administration would have been unwilling to face criticism for failing to erect the promised missile defense system because Canadian wavering got in the way. Accurately reading the political climate in the US, the Canadian government acted before it was too late, allowing NORAD to operate in support of missile defense. However, the current situation is no permanent solution to the threat of Canadian exile from the ITW/AA mission.

The result of GMBD being assigned to USNORTHCOM is an awkward interaction of Commands in case of ballistic missile attack, a situation the Americans may not be willing to sustain. The military rationale for leaving ITW/AA (a critical component of GBMD) with NORAD is questionable. Thus far, ITW/AA has remained with NORAD for a number of pragmatic reasons. NORAD has historically performed ITW/AA extremely well. Furthermore, it lays claim to ITW/AA as the traditional home of aerospace monitoring and warning. Additionally, the US has been busy standing up new Commands and Departments, therefore, it has been loath to burden itself with any additional non-essential shifts in command structure.[110] This is not to say, however, that when the US gains stride with the new Command arrangements it will not decide to further rationalize command structures by removing ITW/AA from NORAD and assigning it to USNORTHCOM to streamline battle management.[111]

It certainly would not be difficult for the US to shift the command structure in this way. NORAD Americans are de facto USNORTHCOM Americans who 'double hat' while inside Cheyenne Mountain, a result of the decision to double

hat CDRNORAD as CDRUSNORTHCOM. All that would be required to move ITW/AA to NORTHCOM would be to remove Canada from the Missile Correlation Centre, previously known as the Missile Warning Centre, in Cheyenne Mountain. Arrangements have long been in place to facilitate this transfer if necessary.[112]

NORAD would not cease to exist in such a scenario, however, NORAD's relevance would be reduced and Canada would sacrifice its aerospace sovereignty.[113] NORAD would retain responsibility for air monitoring and defense and could possibly be expanded in the future to deal with maritime and terrestrial threats, a possibility the Bi-National Planning Group is currently examining.[114] Regardless of potential future plans or the relevance of airspace monitoring and defense in an era of suicidal hijackers, if the United States shifts ballistic missile warning to USNORTHCOM, Canada will have lost a critical component of sovereignty; the ability to take part in North American activities that monitor and defend Canadian aerospace.

NORAD provides a litany of benefits to Canada, most of which are byproducts of the Command's fully integrated structure. The total integration of Canadian and American officers not only provides a coordinated, rational and effective capability to monitor and defend against threats, but also provides Canada with tremendous access to resources, a voice at the American table and privileged access to information.

Canada pays less than 10 per cent of NORAD's cost of operations, and the preponderance of that is comprised of quid pro quo contributions to the Command via personnel. In exchange for this meager contribution, Canada maintains 50 per cent overall command and control and also retains full national command. This allows Canada to retain sovereign aerospace defense on a very limited budget. If NORAD's aerospace mission is moved elsewhere, Canada will have two choices: either to hand Canadian aerospace defense over to the Americans and maintain bilateral air defense, or to spend untold but enormous sums establishing a national Canadian aerospace command.

It is implausible that the government will allocate billions of dollars to construct a new purely Canadian aerospace command, particularly given recent government distaste for military spending. In fact, Prime Minister Paul Martin cited increased military spending in the Fiscal Year 2005 budget as the reason why Canada would decline participation in missile defense. This suggests that if Canada lacks the funds to participate in BMD at a vastly reduced price tag, Canada certainly lacks the resources to build an independent aerospace command. Recognizing that an independent aerospace command is not a viable option, the likely option in a scenario of ballistic missile warning relocation,

would be Canada handing aerospace defense over to the United States. The Americans would likely be courteous enough, keeping up consultations with the Canadian government and providing some information. However, Canada would be reduced to the status of Iceland or Luxembourg, with an outside power largely responsible for the country's air defense. While Lieutenant General Rick Findley argued that nothing had fundamentally changed at NORAD after the Canadian decision to decline participation was made, Ambassador Paul Celluci had another view, stating "We simply cannot understand why Canada would in effect give up its sovereignty—its seat at the table—to decide what to do about a missile that might be coming towards Canada."[115] Whether or not the Americans will have Canada's best interests at heart in defending Canadian aerospace is irrelevant. If this scenario plays out, Canada will have ceded a defining feature of nationhood and deprived the Canadian people of the ability to elect those who make significant portions of their defense policy.

As it stands, Canada's current involvement allows NORAD Canadians to provide information in support of the missile defense mission. However, no Canadians are involved in the missile defense decision-making process or the execution process of launching interceptors. In this way, Canada has already ceded sovereignty in terms of access to the decision making process, much less the actual decision to shoot down a potential nuclear missile. While NORAD Canadians can warn of the launch, they can do nothing to control how the interception is handled, regardless of whether or not it occurs over Canadian aerospace. There is a possibility that greater and more public support for GBMD by the Canadian government may result in missile defense moving to NORAD or Canadian involvement in the decision making loop. However, senior NORAD advisors point out that the system may have developed beyond the point where Canada can reasonably expect to see the mission assigned to NORAD, or to ask to be included in the decision-making process.[116]

NORAD provides disproportionate Canadian influence and access to information. Continuing or expanded involvement in missile defense might build on this positive relationship and prove invaluable for protecting Canadian national interests. Evidence of the benefits of collocation in maintaining Canada's influence and voice are demonstrated by the events of September 11th. Canadian Major-General Rick Findley, then NORAD now Lieutenant-General and Deputy Commander NORAD, had a critical role in defending the United States and indeed all of North America during the greatest crisis of American national security in history.[117] No other ally would have been permitted to occupy a position of such trust, and it is unlikely any other ally would have retained it during a crisis of such magnitude without being immediately replaced by an American officer.[118] Canada was afforded the opportunity to contribute in a tremendously meaning-

ful manner to American security because of the pre-existing NORAD agreement demonstrating the value and influence of such bi-national cooperation.

Supporting Major Canadian Defense and Foreign Policy Objectives:

Coherent defense policy capable of achieving national strategic objectives is a fundamental of good strategy. The question arises then of whether current support for, or future direct participation in, GBMD would support national strategic objectives. The discussion below argues that current support of GBMD and any future further participation is in keeping with national strategic goals identified in the two defining defense documents of the last decade: the 1994 Defense White Paper and the 2005 International Policy Statement. Both the 1994 Defense White Paper and the more recent International Policy Review set out several strategic goals for Canada among them: maintaining sovereignty and security of the nation, reducing the spread and use of weapons of mass destruction and maintaining a positive relationship with the United States through bi-national institutions and cooperation, such as NORAD. Participation in GBMD provides a policy capable of achieving all three of these goals, while maintaining Canada's policy and political sovereignty.

Slowing the Nuclear Trigger Finger

Canadian strategic goals on the topic of nuclear exchange have been clearly articulated for as long as nuclear weapons have been present in the international system—it is in Canada's interests to prevent potentially catastrophic nuclear exchanges. This strategic goal has been articulated through a number of policies, international initiatives and moralsuassion, which Canada has proudly employed for decades. Canada has undertaken to formulate, support, implement and promote supported measures such as arms control and non-proliferation to reduce the chance of a catastrophic nuclear exchange. As new nuclear threats have appeared since the end of the Cold War, Canada has worked diligently to formulate, contribute to, support and implement solutions. It is clearly in Canadian strategic interests that Canada undertake a policy to reduce the threat of nuclear warfare.

A range of complex modern nuclear threats must be addressed by Canadian policy makers wishing to reduce the chance of nuclear war, such as: the emergence of non-state actors; the presence of insecure arsenals in new nuclear weapons states; and Russian ICBMs that remain on hair trigger alert status that are controlled by an increasingly disintegrating command structure. Canada must not allow reducing the chance of something as serious as nuclear catastrophe to be reduced to a simple "us" (the West) vs. "them" (Russia, China, Pakistan and other potentially adversarial nuclear states) equation. Just as Canada must strive to formulate policy that reduces the spread of nuclear weapons, encourages states

to disarm and reduces the chance of nuclear exchange, it is equally important to seek ways to slow the Western nuclear trigger finger.[119] Recognizing that preventing a nuclear exchange requires as much work and self restraint on the "us" side of the equation as aid and international pressure to moderate the "them" side. If Canada is truly interested in reducing nuclear Armageddon, it must undertake policies that will not only prevent attacks on "us" by "them," but will seek to moderate, reduce and, when possible, prevent nuclear retaliation to those attacks by "us," including by the United States.

Participating in GBMD supports slowing the American nuclear trigger finger in scenarios of nuclear retaliation. Current American policy states that if the United States is hit with a nuclear missile, it will launch a massive nuclear attack in response. Retaliation is to be swift and brutal. The problem with this policy is that it fails to consider accidental or non-state actor launches, major problems in the Post Cold War and Post 9/11 international security environment. Executing massive nuclear retaliation on a country that has not deliberately launched a nuclear attack would be devastating and tragic for the millions of innocent lives lost. Missile defense provides a way for the United States to halt a limited attack, assess where the attack came from and the intent of the attack before responding with maximum force. Slowing this kind of nuclear knee jerk response is certain in keeping with Canadian sensibilities.

The 1994 Defense White Paper

The 1994 Defense White Paper is relevant to the discussion, even though it has since been replaced by the 2005 International Policy Statement on Defense because it formed the context for all discussions and decisions about involvement in GBMD until the spring of 2005. The decision allow ITW/AA to be employed as part of the GBMD system, as well as the decision not to join GBMD as a full partner were both made under the context of the 1994 Defense White Paper.

The 1994 Defense White Paper states, "sovereignty is a vital attribute of a nation-state … Canada should never find itself in a position where, as a consequence of past decisions, the defense of our national territory has become the responsibility of others,"[120] demanding that Canada seriously consider the sovereignty consequences of non-support of missile defense for Canadian aerospace. While the decision to support GBMD through ITW/AA partially protects against Canada To fail to support GBMD and sacrifice aerospace sovereignty flies in the face of long established Canadian policy. Furthermore, the White Paper argues that Canada has three central goals, the top two of which are the defense of Canada and the defense of North America. Support of GBMD is de facto supporting both of these goals.

The International Policy Statement - Defense

The International Policy Statement on Defense (IPSD) articulates clear strategic goals that support for missile defense and future direct participation in GBMD could help to achieve.

The defense of North America is one of the three primary roles for the Canadian Forces set out in the IPSD, which states "The Canadian Forces will continue to perform three broad roles: protecting Canadians, defending North America in cooperation with the United States, and contributing to international peace and security."[121] The IPSD clearly asserts the importance of defending North America to Canadian security, sovereignty and interests. The document goes on to insist that Canada not only participate in continental defense, but seek to strengthen relations and institutions with the United States to facilitate that goal, suggesting Canada must seek, "… new and innovative ways to enhance relations with the united States to defend the continent."[122] The importance of a strong and positive relationship with the United States to achieving Canadian security is frequently highlighted and most clearly articulated when the IPSD states, "A strong Canada–US defense partnership remains essential to our security."[123]

The IPSD argues that the importance of a strong and continued Canada–US relationship lies in history, shared experiences, values and economic interdependence. The document recognizes the sixty-five year old historical roots of continental defense, and argues that the understanding produced by the 1940 Ogdensburg Declaration—that "North America's security is indivisible"[124] and must be defended as a single theatre of operations – remains true today and should be treated as the foundation upon which to renew previous institutions and understands and to initiate new ones. The IPSD explicitly recognizes the importance of Canada–US cooperation in regards to security stating, "Our bilateral cooperation continues to provide us with a degree of security that we could never achieve on our own."[125] In the post 9/11 environment, Canada and the US are more closely linked than ever before, according to the IPSD, especially in the domain of security. It is with this in mind that the document lays out a number of new and creative ways to pursue improved Canada–US relations and institutions.

As a part of the new, enhanced and creative ways to improve the Canada-US relationship, the IPSD lists specific initiatives as well as broad policy directions to pursue including: the recommendations of the Bi-national Planning Group to expand the NORAD model into maritime and terrestrial security; the modernization of forces through doctrinal concepts, technology, exchange programs and training to increase interoperability with US forces; to improve coordination between Canadian and American government departments to prevent and respond to terrorist attacks. All of these initiatives and policy prescriptions point

towards a common goal: improving and increasing the Canada-US relationship to protect Canada and North America. Support for GBMD through ITW/AA and possible future direct participation in GBMD are both policies which would help to achieve the aforementioned strategic goals.

In the post 9/11 era, the IPSD notes the US focus on homeland security and willingness to go to great lengths and even greater expense to defend is people, territory and interests. The document clearly recognizes the potential implications of American determination to protect the homeland at all costs on Canadian sovereignty stating, "It is clearly in our sovereign interests to continue doing our part in defending the continent with the United States,"[126] rather than leaving that defense up to the United States alone to be handled as they see fit. In light of these concerns, the document considers the importance of NORAD, the keystone of the Canada–US relationship, clearly linking participation in and the survival of NORAD to not only Canadian security but more importantly, sovereignty. Chief of the Defense Staff, Lieutenant General Rick Hillier notes, "These initiatives, while significant, are not enough. As part of our new, more sophisticated approach to our relationship with the United States, we will renew our commitment to continental defense."[127] The CDS confirms Canada's support for NORAD and declares that Canada's support for missile defense through ITW/AA was in fact a means of demonstrating support for NORAD and continental defense and, more broadly speaking, for the sovereignty and security that continental defense brings to Canada.

Throughout the IPSD, the CDS (the primary author of the document) consistently uses strong language to emphasize support for the Canada–US relationship, continental defense, NORAD and technical support of missile defense through ITW/AA. In light of the greater emphasis and support for North American defense and the security and sovereignty benefits such defense provides, it is not unreasonable to posit that potential future further direct participation in GBMD would support all of the above policy goals as a new and enhanced bilateral security initiative—maintaining Canadian sovereignty, supporting the NORAD mission, and strengthening the Canada–US relationship.

The IPSD reaffirms support for the military use, although not weaponization of space. The document states under the section Transformation Initiatives "Aerospace Capabilities," that CF-18s will acquire "a satellite-guided air-to-ground weapons capability," which clearly demonstrates support for the military use of space-based assets, reaffirming Canada's distinction between weaponization of space and militarization of space. Even more explicitly, the International Policy Statement on Defense argues that it is essential to "pursue the use of satellites to support domestic and international operations."[128] The IPSD make a

clear commitment to the use of satellites and space-based assets in the interests of the betterment of the Canadian Forces, more effective operations and intelligence and surveillance capabilities.

Canadian Sovereignty and Interests

There has been a great deal of concern that direct participation in, or support for, GBMD will see Canada bullied by the United States and will quash Canadian sovereignty as the US requires Canada to alter policies vital to Canadian national and international interests. Even in the most extensive scenario of political and operational support (assuming the US allows this), Canada would only be involved in NORAD. To claim that NORAD has seriously altered or prevented Canada from achieving national policies the US disagreed with is historically inaccurate. There are numerous examples of Canada pursuing routes and policies the US disagreed with while maintaining NORAD membership. Prime examples of Canada independently pursuing policies while a member of NORAD are as follows:

- Canadian Forces at NORAD did not join their American counterparts in shifting to an increased state of readiness following John F. Kennedy's October 22nd, 1962 speech.[129] Instead, Canadian Forces at NORAD waited two full days before upgrading to the alert state of Military Vigilance, when Prime Minister Diefenbaker finally authorized such a transition. This is evidence that forces at NORAD remain under national command at all times, part of the sovereignty benefits the bi-national command offers. Here, Canada clearly exercised its sovereignty in disagreeing with the American military alert upgrade (for political and personal reasons) and rather than being dragged along with the American response, made an independent decision in choosing the time and nature in which Canadian forces would upgrade. When NORAD was established the key factor in its formation was the retention of national command over forces. Only joint operational control of forces was sought for the purposes of rationalizing defense (quick response to a threat). Canadian Forces under American control are no more beyond DND's command that Canadian Forces under UN commanders in the field.

- Canada both designed the Anti-Personnel Landmines Treaty and solicited the support of the international community. Although the US refused to sign the agreement, the US never attempted to stop Canada from constructing or pursuing it.

- The Canadian decision not to join the US led invasion of Iraq in 2003.

- A previous and similar historic Canadian decision not to join the Vietnam War.

These are only a few examples available that demonstrate Canadian participation in NORAD is an exercise in sovereignty that in no way impinges upon Canadian sovereignty or national interests. Participating in and supporting GBMD through NORAD (assuming it is consistent with previous types of participation in NORAD) will in no way prevent Canada form pursuing relevant policies or national interests.

Conclusion

In February of 2005, after sixty years of consistently treating North America as a single theater of operations, Canada reversed policy on continental defense with its refusal to formally participate in Ground-Based Midcourse Defense. For the first time since the Ogdensburg Agreement and the tradition of defense against help, Canada ceded its ability to defend against a threat to the United States: the ability to defend against Intercontinental Ballistic Missiles. As a result of this decision, Canadian sovereignty, as well as Canadian access and influence in continental defense are in the process of being marginalized.

There are many powerful arguments against missile defense including: the expense of the system, the questionable military necessity of constructing it and the effectiveness of a deployed system. None of these arguments are arguments against Canadian participation, however. Canada was not asked for territory, funding or significant input into the system and therefore these factors should not weigh upon a Canadian decision regarding participation in GBMD. GBMD clearly militarizes space, although it does not weaponize it allowing Canada to participate without violating the traditional Canadian stance against weapons in space. Furthermore, participation in GBMD in no way compromises Canadian policies or initiatives, in fact it supports many of them specifically articulated in the International Policy Statement of 2005.

Canada should reconsider invitations to join missile defense and decide whether or not it wants to be further involved in the system and politically support GBMD on the basis Canadian national interests. The Americans do not need Canada to be on-board, but the fact that they would certainly like it was made clear during President Bush's 2004 visit to Canada and Ambassador Celluci's marked disappointment following a Canadian refusal to participate. Canada's current bizarre de facto minimal participation without full support—the ability to track missiles without being involved in the decision making process to defend against them—ignores the interests that cooperation could serve for both countries.

BMD is progressing to the cost of Canadian sovereignty. It is time for the government to make a forthright decision on participation; one that is based on the best interests of the country and Canadians.

Notes

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Stephenson Slide Addendum:
Ballistic Missile Defense: The Canadian Conundrum

Figure 1

Figure 2

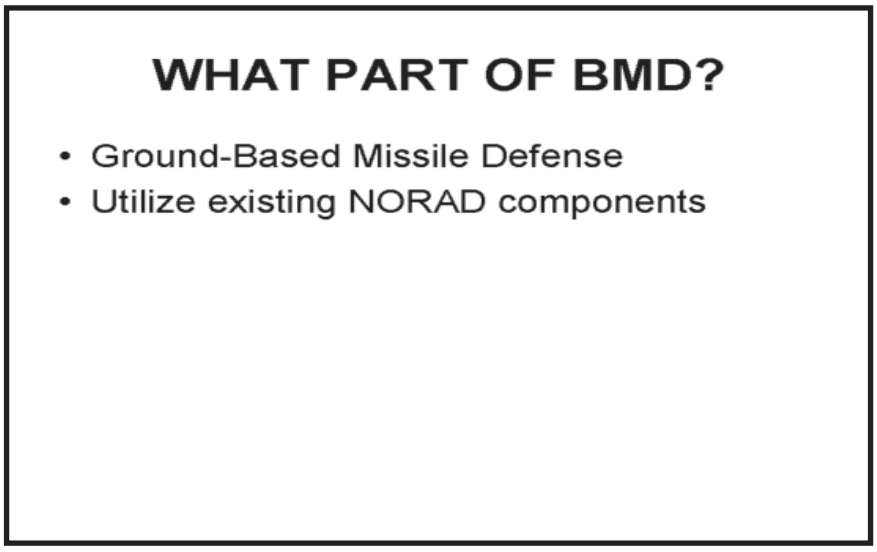

Figure 3

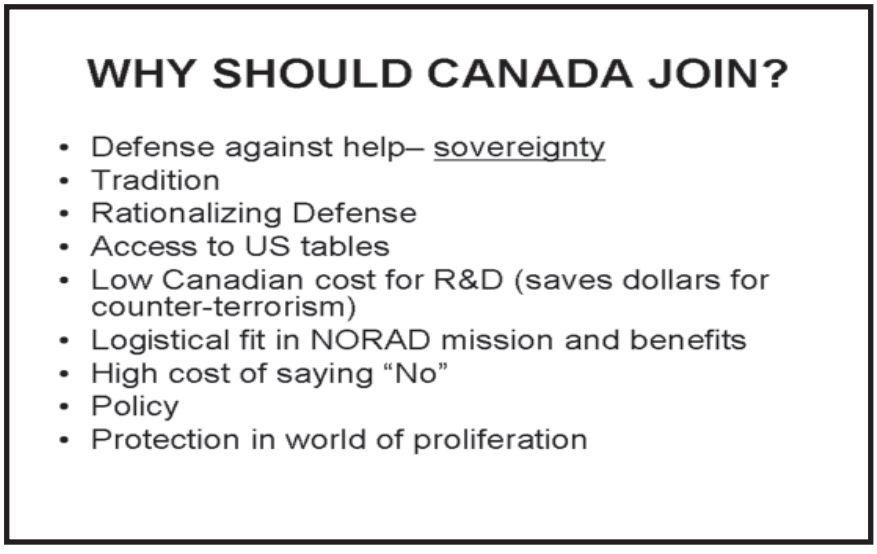

Figure 4

WHY NOT JOIN?

- Weaponization of Space (STAR WARS)
- "System won't work"
- Concern about effects on proliferation
- Perception of no threat to Canada
- Anti-American venom

Figure 5

DUALITY OF CURRENT GOVERNMENT POLICY

- Effects on the Relationship
- August Amendment
- Band Aid solution turned into full-time policy
- Indecision – NORTHCOM – Future
- NORAD relevancy decreasing; poses challenges to expanding bi-national interoperability

Figure 6

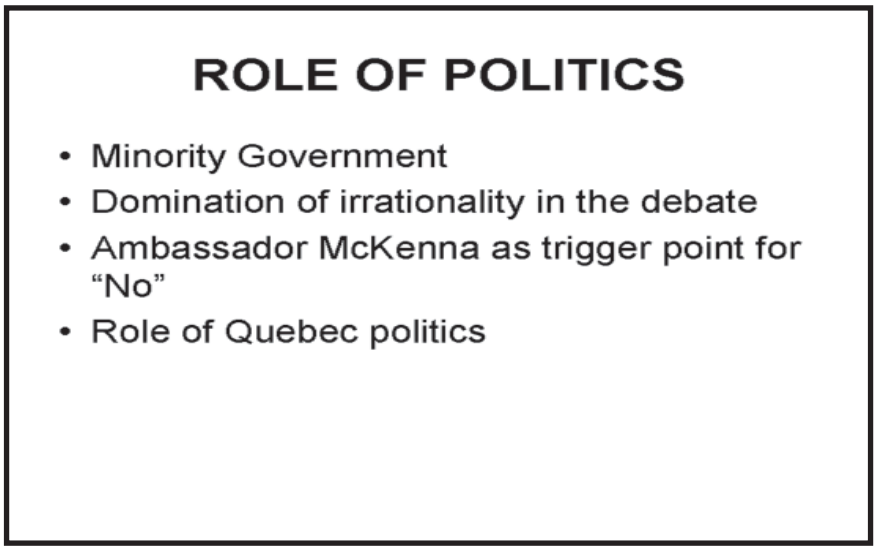
ROLE OF POLITICS
• Minority Government
• Domination of irrationality in the debate
• Ambassador McKenna as trigger point for "No"
• Role of Quebec politics

Figure 7

A Canadian Citizen's Perspective of Officership in Canada: A Profession in Progress

Pamela Stewart

> *It matters little whether the Forces have their present manpower strength and financial budget, or half of them or double them; without a properly educated, effectively trained, professional officer corps the Forces would, in the future, be doomed to, at the best, mediocrity; at the worst, disaster.*
>
> — (General Jean Allard-The Rowley Report)[1]

Introduction

Officer professional development, intermittently inclusive of education and training, has been a long-standing concern in Canada. The overall purpose of the Canadian Forces (CF)[2] and what Canadians perceive it to be is also a long-standing concern. The historical record finds such concerns intertwined throughout the officer professional development trials and tribulations of the last fourty years. The concerns are justified for, as hypothesized by Carl von Clausewitz, there exists in human society, "a sacrosanct and symbiotic relationship between armed forces, governments, and the people" whereby the Trinity is at its strongest when each tri-entity knows its purpose and understands its unique place in the Trinitarian relationship.[3] In Canada, since at least the 1960s until recent times, the Trinity has been consistently undermined by an inadequate CF professional development system unable to sustain the intellectual health of the CF's military due to two main factors: (1) the officer education-training dichotomy; and (2) the questionable existence of a Canadian "profession of arms".

The paper shall follow a theoretical *military professional* approach which states that military professionalism must be based on the primary purpose of the military itself: war-fighting. As argued by Don Snider, military professionalism is neither relative nor subjective; but under objective civilian control. Senior military leadership's obligation to uphold the tenants of a profession of arms "does not arise because those in the profession said so, [or those in government said so] but rather because it is necessary if the profession is to be effective in its purpose of war-fighting".[4] In the Canadian context, a healthy civilian-military relationship is, allegedly, achievable when the CF successfully "focus(es) on the function of managing violence" while simultaneously "remaining true to Canadian social values and national interests."[5]

As such, this paper shall present a *historical chronology* with which to understand where CF professional development has been in the past and with which to surmise its future. This paper shall further imply that the main protection a military has against any Trinitarian contradictions is its ability to educate, to train, and to develop its leadership so that they have the intellectual competency to sift through the complexities of their professional/civilian-military function while still remaining militarily effective. Such a thesis is grounded by the following explanatory examples:

(1) Samuel Huntington:

> The military skill requires a broad background of general culture for its mastery… just as law at its borders mergers into history, politics, economics, sociology and psychology, so also does military skill. Even more, military knowledge also has frontiers on the natural sciences of chemistry, physics, and biology. To understand his trade properly, the officer must have some idea of its relation to these other fields and the ways in which these other areas of knowledge may contribute to his own purposes… he cannot really develop his analytical skill, insight, imagination, and judgement if he is trained simply in vocational duties. The abilities and habits of mind which he requires within his professional field can in large part be acquired only through the broader avenues of learning outside his profession… Just as a general education has become the prerequisite for entry into the profession of law and medicine, it is now almost universally recognized as a desirable qualification for the professional officer;[6]

(2) Major David Last (CF):

> Professional officers are managers of violence. Their professional education must allow them to understand it. Violence has always been a part of the interconnected human conditions that we label war, conflict, and peace. In the complex world of today and tomorrow, our understanding of these conditions needs to be more comprehensive than in the past. This is more important than technology, doctrine, and strategy, because all are subservient to purpose. There is no purpose without understanding. Further, the officer's understanding must match that of society, otherwise he or she cannot serve it;[7]

(3) Michael Howard:

> I am tempted to declare dogmatically that whatever doctrine the Armed Forces are working on now, they have got it wrong. I am also tempted to declare that it does not matter that they have got it wrong. What does matter is their capacity to get it right quickly when the moment arrives;[8] and,

(4) Dr. David Bercuson:

> That the preponderance of the military and defence analysts now make about future war-and what changes armies must make to prepare for that future-will most likely largely be wrong. The only real preparation that militaries can make for future war is to select and nurture soldiers who are intelligent, flexible, thinking, well educated-and not just in business administration and engineering-and capable of adapting quickly.[9]

As such, using the above noted examples as points of reflection, this paper shall ultimately portray a Canadian citizen's understanding of the CF's ability to apply such wisdom in relation to officer professional development, education/training, and the overall "profession of arms" in Canada. The resulting paper is as much a conglomerate of questions, as an attempt to arrive at any definitive answers.

Historically, several studies have attempted to address the educational and professional development problems of the Canadian Officer Corps.[10] Until the period 1997-2001, to the great detriment of the CF profession, and the Canadian public, senior political and military command had implemented only a few of them in part and none in their entirety.[11] The result was a 1990s Canadian Officer Corps remit of higher strategic thinking, politically distrusted and constantly scrutinized, totally disconnected from Canadian society, and lacking a comprehensive understanding of what it means to be a part of the "profession of arms". Specifically, this paper begins with a broad review of CF officer professional development and its officer education/training dichotomy from the 1960s through to the 1990s. Next, an examination of the turbulent years of the 1990s through to the present addresses current CF leadership attempts to "heal" the past while preparing for the future. Within the confines of the Trinitarian relationship, final analysis attempts to understand the strategic issues facing the Canadian "profession of arms" of today and tomorrow.

An Overview of The Past-1960s to 1990s

From 16 October 1967 through to 1969, the Officer Development Board (ODB), chaired by Major General Roger Rowley, conducted the most extensive professional development review of Canadian officer development ever attempted to that date. The Chief of Defence Staff, General Jean Allard directed Rowley to examine all phases of the regular officer profession from selection, through training, from the lowest to highest rank. *The Rowley Report* called for a professional development delivery system to ensure the viability and sustainabil-

ity of the Forces' leadership during the turbulent social upheavals of the 1960s and the trials of Canadian Armed Forces' (CAF-as the Forces were named then) service unification and integration.[12] The formal, well researched, three volume, 500–page *Report of the Officer Development Board* strategically outlined a comprehensive plan encompassing officer professional qualities, course contents, and a centralized/ decentralized governance structure for a professional Canadian officer development system.[13] The guiding precepts of such a professional system included:

- Preparing officers, at every rank, to contribute to a Canadian national strategy;
- Imparting a Canadian military ethos;
- Remaining in consonance with scientific, technological, sociological, economic, educational, and military/strategic changes;
- Accepting the baccalaureate as the basic educational level for entry to the officer corps;
- Ensuring that courses taught at the military colleges are relevant to the technical and operational requirements of the military;
- Providing the appropriate professional development course material at the right stage to assist the officer in the orderly development of the qualities demanded of him at succeeding levels;
- Encourage original research on military matters within the officer corps;
- In doing so, permit no degradation of operational effectiveness upon creating and implementing an efficiently organized, well integrated, and effectively commanded development system.[14]

Such a grand professional development system would have, hypothetically, ensured the professional long-term stability of the Canadian Forces. However, instead of attempting to implement Rowley's recommendations, senior command developed a much more restrictive, bureaucratic, training construct, the Canadian Defence Education Establishments (CDEE), on 1 January 1970 and then, in 1972, the Directorate of Professional Education and Development (DPED).[15] Generally, the CDEE/DPED supported independent military college control of professional development and reaffirmed the primary of operational training in the minds of CF leadership. For example, the OPDP ("opeydopeys") professional development courses were delivered in *ad hoc* fashion, with little consistency between the course contents. More importantly, the courses in no way compen-

sated for a lack of a university education and did not have nearly the content size or strict policy parameters as similar courses taught in Canadian universities.[16]

Regretfully, an unadulterated version of the DPED existed on through the 1990s with little revision. As a result, throughout the 1970s and 1980s, officer professional development was *ad hoc* at best, with many highly qualified operational officers never having the opportunity to attend the higher-level Staff College. Those that were lucky enough to attend soon found that Staff College course contents were not tied to past junior courses and had limited strategic value in relation to their operational duties. The result was a dysfunctional professional development system with many officers leaving the CF for private citizen employment.[17]

Ultimately, the operational "Cold War" stability of the 1970s and 1980s, the political "mind-think" of the elected Federal parties in power, and inconsistent CF leadership, solidified the erroneous belief that officer operational/ tactical training was sufficient on its own; education and ongoing officer professional development were deemed unnecessary.[18] Tactical training excellence developed over years of successfully deploying on NATO operations soon came to trump education and the requirement for a critical thinking Officer Corps.[19] Consequently, as the anguishing upheavals and vast changes of the 1990s occurred, long standing indecisiveness on the part of military leadership to understand its "profession of arms" came to a head with the Somalia Affair triggering a CF military identity crises. The entire CF "profession of arms", so strong and healthy after the Second World War and the triumphs of the 1950s, was slowly unravelling: an issue of professional leadership or lack thereof.

As assessed above, the underlying reasons behind the stagnation of officer professional development during this Thirty year time period are difficult to ascertain for as Colonel Randy Wakelam explained:

> *One is left to wonder whether or not more could have been done at the time to ensure the success of officer professional development. If one accepts the tumultuous reorganization of the services into one unified force, the desires of politicians and senior commanders to downsize the military footprint in Ottawa, the aspirations of the military colleges to continue with their traditional mandates and programmes and the general lack of support for the Canadian Forces by government and Canadians … then a system such as that which was created and operated seems the best that might have been hoped for.*[20]

The 1990s

As just stated, the pivotal event that finally shocked the Canadian Forces, the political powers, and the Canadian public out of their malaise occurred in the East African country of Somalia in 1993. The ramifications of the resulting *Somalia Affair* have continued to resonate throughout the CF, the Department of National Defence (DND), and Canadian society until present day. In essence, the above introduced "disaster" premonition, articulated in 1968 some fifteen years before, by then Chief of Defence Staff, General Jean Allard, had finally come to fruition.

Adding fuel to fire, the calamity occurred during a time of great global, political, technological, social, and economic change. As evidenced by the following comprehensive timeline, due to a "weak" or non-existent "profession of arms" foundation, the CF has found adapting to such massive change extremely difficult. Subsequent analysis is founded on General Allard's implied assertion that a highly educated, effectively trained officer corps would have prevented his forecasted "disaster". Therefore, logic dictates that heeding his advice should negate any similar "crises" from impacting the CF in the future, thus ensuring a strong and healthy "profession of arms" in Canada.

There is no gain in laying blame. Each side of Clausewitz' Trinity has an equal part to play; albeit, the political power's continued refusal and outright abandonment in deciding to not finance a professional officer development system over some thirty years has much to answer for. The inability of uneducated CF command and/or outright negation of senior, fragmented, CF leadership to advise the government on the benefits of such a revised system goes much to the issue of "professionalism" in the CF and its relationship with Federal political power in Canada.

The Somali Affair Factual TimeLine

On 16-17 March 1993, Shidane Arone, was tortured and murdered by Canadian soldiers of the Canadian Airborne Regiment (CAR) deployed on a United Nations mission in Somalia. Prior to this "significant incident"[21], on 4 March 1993, CAR soldiers shot at two Somali males, who had entered the Canadian compound, killing one and severely injuring the other. Although a review of the 4 March "shootings" determined that the soldiers, who fired, were within the bounds of Canadian military legal authority, "there is no doubt the two men were shot in the back running away, that they had not actually stolen anything, and that they were unarmed."[22] Furthermore, the acquiescence of CAR command to the shootings, arguably, "paved the way for the tragedy that occurred on 16 March 1993."[23] As a result of these events, both the Canadian government and

the Canadian people finally became interested (albeit for negative reasons) in the CAR and its mission in Somalia with the subsequent investigations, media coverage, and public inquiry shaking "the Canadian military establishment to its very core."[24]

Specifically, the Commission of *Inquiry into the Deployment of Canadian Forces (CF) to Somalia*, begun in May 1995, had its proceedings broadcast almost daily on Canadian national television. As well, several magazines and newspapers ran special editions on the progress and findings of the Inquiry delving into the events surrounding the Somalia Affair and, by association, the very essence of the CF entity.[25] In December 1996, after almost two years of ongoing publicized investigative, political, and legal rhetoric, the government shortened the life of the Inquiry's existence when then Minister of National Defence, The Honourable M. Douglas Young, refused to grant the Inquiry's request for a further time extension implying the Inquiry's ongoing investigation was seemingly endless and its existence no longer considered as in Canada's best interest.[26] As a result of the Minister's statements, under duress, the Inquiry completed its public hearings between January-March 1997 providing its final findings to the Government on 30 June 1997.

The Inquiry's extensive findings were published within five primary volumes along with ten additional monographs.[27] The author's review of the Inquiry findings determines that although the systemic causes leading to the death of Shidane Arone, and the other questionable incidents occurring in the CF throughout the 1990s, were remarkably identifiable and founded strongly on a lack of political and military leadership, the truthful facts behind who was to "blame" for the creation of such an alleged unprofessional military, the exact details surrounding the death of Shidane Arone, and the proposed National Defence cover-up were never completely revealed.[28] Although the "illness" was never completely diagnosed, the signs and symptoms were identified, and a cry for "healing" was heard by the Canadian Federal government and the Canadian peoples.[29]

Ultimately, the Commission's Final Report raised concerns regarding the degradation and total lack of "professionalism" in the CF. As a remedy, the Commission rightly called for a reinstatement of professionalism in the CF via:

- A renewal of the military ethos and its traditional core values of integrity, courage, loyalty, selflessness, and self-discipline;

- A strengthening respect for the rule of law and all that it connotes;

- An integration of core Canadian societal values, such as fairness, decency, respect for human rights, compassion, and justice, into the professional

self-image.[30]

Inherent in the Commission's remedy is the point that militaries must exist, not in tandem with governments and its society, but as professional servants "under objective civilian control", managing the realm of violence while understanding the social values upholding the society it serves.[31]

The Continuing Historical Chronology

While "shutting down" the Somalia Inquiry, the Minister of National Defence formed two independent panels; one panel of senior academics to produce reports on areas the CF needed to reform to function effectively into the future, and the second panel to recommend changes to the Canadian military justice system. The Minister asked the panellists to prepare recommendations for instilling overarching positive professional change into the Canadian military institution.

Of specific interest to this paper are the resulting Reports' assertions that there existed a fundamental need for a highly educated Canadian Officer Corps.[32] Specifically, Desmond Morton and Albert Legault stated that changes to the military educational system must occur so that the CF is able to meet the uncertain challenges of the Twenty-First Century.[33] As well, Jack Granatstein noted, "the CF has a remarkably ill-educated officer corps, surely one of the worst in the Western World," with only 53.29% of its officers holding university degrees, of which only 6.79% were graduate degrees.[34] Finally, David Bercuson argued that all commissioned officers should have a university degree and that all senior command officers should hold a Master's degree.[35] He also negatively asserted that within the CF, "there is a dearth of both strategic thinking and forward planning. Almost all Canadian military intellectual activity concentrates on the practicalities of doctrine, on tactical matters or on administration."[36]

As a direct result of these statements, the Minister prepared his 1997 Report to the Prime Minister on the Leadership and Management of the Canadian Forces detailing eleven recommendations "to improve officer development and to inculcate a professional ethos appropriate to the Canadian Forces."[37] Generally, he ordered "across the board reforms" for the entire CF addressing leadership issues on "inadequate officer professional development, a failure to adapt to changing conditions, a lack of Canadian strategic thinking, disciplinary difficulties, isolation from Canadian society, and problems of values and ethics".[38]

Next, to ensure the ongoing transformation of the CF and to mend the contract of trust broken between Canadian society and its military, the Minister of National Defence, The Honourable Mr. Douglas Young, along with his successor, The Honourable Art Eggleton, established the Minister's Monitoring Committee

on Change in the Canadian Forces and the Ministry of Defence (MMC).[39] The MMC was activated as of 20 October 1997, with a mandate to first "watch over" both the CF and DND, and secondly, to publicly report on their progress in effecting the required changes.[40] The MMC operated until November 2003, producing three all-encompassing reports.[41]

Throughout its existence, the MMC constantly referred to the need for highly educated leadership to effectively bring the CF into the Twenty-First Century. For example, in *Interim Report*, (1998):

> The Committee stressed the importance of a focused and effective education, training and development program as an engine for change. It called upon the senior leadership of the CF to participate actively in the 'visioning' of the kind of officer needed in the future….as dynamic leadership must drive the necessary transition in attitude and defence culture.[42]

Next, in *Interim Report* (1999), the Committee noted with dismay that there was still a distinct absence of an overall visionary plan with little or no direction received from Ottawa/NDHQ on the CF strategy for change.[43]

> DND/CF has not been sufficiently 'strategic' in managing their reform program…. The Department and the CF were given the task of implementing hundreds of recommendations… The implementation of individual recommendations was accepted as a series of tactical jobs… Put simply, the defence team has applied tactical solutions to what it considers to be tactical problems. What the Committee has stressed over its tenure is that the reform program is a strategic challenge that requires strategic solutions.[44]

Finally, in the Monitoring Committee's *Final Report* (2003), the Committee recognized the renewed efforts of the CF to establish a strategic visionary plan by noting that, "throughout 2001 and 2002, the Committee conducted numerous consultations, with senior officials, in its continuous monitoring of the implementation of government approved recommendations related to CF professional development, education, and leadership."[45] *The Final Report* also applauded the establishment of the new Canadian Defence Academy (CDA) tasked with the mission to create, implement, and integrate a professional development strategy throughout the CF.[46] With the establishment of the CDA, the Committee's monitoring task was "reassigned" to the military leadership at CDA and, as such, the Committee was disbanded. Self-regulation and control of the "profession of arms" in Canada was, once again, entrusted to its leadership: a professional test,

of sorts. Finally, the singular, centralized professional development system envisioned by *The Rowley Report* twenty-five years ago has come into existence with the full support of both political and military leadership.

The Present – 2000-2005

CDA and Officership 2020:

According to its website, the CDA is a military formation stood up on 1 April 2002. It is mandated to promote, facilitate, and harmonize common professional development for all CF members. Its guiding principle is to provide every CF member an opportunity to develop the intellectual ability, critical thinking skills, and understanding of national policy and military doctrine that will enable him or her to function effectively in a complex and information rich environment today and tomorrow.[47]

Ultimately, the CDA is tasked with the successful implementation of the strategic document, *Canadian Officership in the 21st Century, (Officership 2020)*[48]. As it is a *living* document, CF leadership hopes to solve Canada's "profession of arms" quandary of past stagnation and inertia by providing strategic guidance for the future professional development of all CF members.[49] Briefly, representatives from all ranks (Officers and Non-commissioned) as well as civilian experts created *Officership 2020* during the first six months of 2000. It has a five-year foundational implementation phase to 2005/2006 with an imagined lifespan to the year 2020.

As noted by The Honourable Mr. Art Eggleton in the foreword of the document, *Officership 2020* "represents another progressive step in the Department's continuing reform program."[50] The document supports a strategic vision that the Officer Corps of the future CF will be made of "exemplary leaders, serving Canada, and devoted to the profession of arms."[51] *Officership 2020* outlines eight strategic objectives necessary to fulfil the overall vision.[52]

Officership 2020 subsequently outlines the actions necessary to fulfill all of the strategic objectives.[53] How each key initiative applies to its corresponding relevant strategic objective is portrayed in the document's implementation matrix. Consequently, the strategy's success depends on CF leadership's ability to make their strategy work. "The Implementation is powerful because it reflects all dimensions of the overall strategy, its goals, and how to achieve them."[54] Arguably, a well-thought out strategic plan is fundamental to any plan's ultimate success for:

> It makes no sense to have a strategy that no one understands, commits to, or acts on. Interdependent communication has many benefits, including

> a strengthened connection between individual and organizational goals, a shared context for action throughout the organization, and increased confidence that leaders have really thought about and taken advice on the best direction for the company to follow.[55]

A Canadian Citizen's Perspective –So Far

It is far outside the bounds of this paper to provide a detailed examination of the progress the CF may or may not be making in implementing its pivotal professional development strategies: *Officership 2020* and *NCM Corps 2020*. However, important to this thesis are the earlier introduced factors: the education-training dichotomy and the intertwined "profession of arms" issue. As such, a cursory understanding of *Officership 2020*'s first and third strategic objectives and its capstone "profession of arms" manual is deemed extremely relevant to this professional development study and any required subsequent elaborations. Respectively, *Officership 2020*'s premier strategic imperative is the "ordered application of military force".[56] In realizing this objective, the strategy is set to:

> Develop an Officer Corps that is capable of orchestrating the application of armed force at the strategic, operational, and tactical levels in pursuit of national interests and objectives. All officers must be able to dominate the battle-space physically and intellectually by integrating the rule of law, military doctrine and technology in joint and combined operations.[57]

Next, the Strategy's third strategic objective is to create an Officer Corps with "the highest standards of professionalism".[58] In realizing this objective, the strategy is set to:

> Develop an Officer Corps that exemplifies the highest standards of professionalism through expertise and dedication to Canadian society… The components of a Canadian profession of arms – expertise, corporate ness, and societal responsibility - will be clearly defined and codified.[59]

As noted above, the Strategy includes an initiative plan of action for achieving its strategic objectives. A review of its implementation matrix depicts that the first and third strategic objectives are directly connected to several of the strategy's key initiatives. For example, the first Key initiative states "officers will learn the required knowledge and skill-sets through education, training, experience, and self-development".[60] As noted by Lieutenant-Colonel Bernd Horn, "the basic tool required [for a professional officer corps] is simple: a solid educational base balanced with operational experience."[61]

The perceived balance and course of action may not be so simple or clear to CF officers nor to interested Canadian citizens when the *Officership 2020* strategy seemingly sets the single pillar of operational experience against the other three. In 2001, then Colonel Beare argued:

> Giving the responsibility to ensure the intellectual development of the overall Canadian Officer Corps to the general and flag officer as a whole is so wide a mandate as to be no mandate at all. Like the OPDS, OPD 2020 does not provide the framework needed to direct and choreograph the balance between experience and the other three pillars of education, training, and self-development.[62]

Beare continued by expressing the Army's overall concern that if the other three pillars successfully outweigh the need for the development of experience, then the CF's operational military effectiveness will suffer and the individual's career will suffer given that deployed time will impact against the requirement for professional development.[63] Such arguments are eerily reminiscent of arguments made during the 1970s and should have no place in the CF of the 21st Century but they still exist today.[64] The CF Officer Corps cannot return to a purely operational/tactical "mind-think" with no understanding of the connection between education and professionalism; and, according to the current command remedial actions of the Canadian Defence Academy, shall not do so.

In 2001, Lieutenant-Colonel Bernd Horn responded to Colonel Beare's concerns in a corresponding article within the same Army Bulletin, answering the pivotal question of whether soldiers can be both effective war-fighters and scholars with an emphatic affirmative.[65] Colonel Horn (PhD) is currently the commanding officer for the Canadian Forces Leadership Institute, a founding member of the Canadian Defence Academy, currently headed by Major-General P.R. Hussey. Their respective beliefs in a Canadian "profession of arms" made up of highly educated professionals is well known and fully supported by their command actions.[66] A summary of such actions includes the following points:

- A high percentage of CF officers have completed, or are in the process of completing, their Bachelor degrees via the Royal Military College student avenue, civilian universities, or the varied military education Continuing/Distance Study programs. Although accurate data is not available due to internal collection issues, there is a general understanding that the Canadian Forces currently has the best educated officers in its entire history;

- The Canadian Defence Academy shall continue to offer as many alternative teaching and learning venues as needed so that every CF member is given

the opportunity, regardless of their operational responsibilities, to further develop their intellectual abilities;

- The Profession of Arms manual is to be continually updated and revised. A new version will encompass civilian employees working within the National Defence Headquarters;

- The revised Profession of Arms manual will also encompass civilian employees and contractors when deployed, in theatre, alongside CF personnel;

- The Profession of Arms manual is a formal ethos document. It has been translated into Spanish and is being used by several Central and Latin American countries as a model template with which to develop their own professional military ideal;

- Non-commissioned member and officer courses have all been updated to include educational aspects of professionalism and leadership in the CF. Although the operational focus has not diminished, the educational additions have strengthened the educuational professional development roots at both the recruit and senior member levels;

- Senior staff command courses shall include course content discussing the educational/training dichotomy;

- Senior staff command courses not easily available to all Canadian officers will be split into two versions; one catered to senior staff tracked officers and the other to senior operational tracked officers. The reasoning behind such a split is to ensure that all senior officers, regardless of career progression, receive the professional and educational opportunities required to ensure a healthy "profession of arms" in Canada; and

- There is an acknowledgment of the intellectual and experiential expertise of senior NCM's so that an Executive Bridging Leadership course has been created allowing senior ranking members as well as senior officers the opportunity to interact with each other on an intellectual level.[67]

This Canadian citizen's ongoing perusal through the muddy waters of professional development in the CF comes up against another confusing mental roadblock when trying to understand contemporary pressures existing on the profession of arms placed upon it through the Trinitarian relationship.

Specifically, the Canadian Defence Academy site states,

> "Professional development is a priority – but with the myriad of challenges the CF is facing, ageing equipment, high operational tempo, and others—some may ask why? The answer is that we simply cannot afford not to. In a complex and information rich post cold war/post 9/11 security environment, the CF must adapt. Now more than ever, we need NCMs and officers with the intellectual ability, critical thinking skills, and ***understanding of national policy*** and military doctrine to effectively support operations…. Canadians look to their Forces for solutions. We must not let them down.[68]

Canada's new International Policy Statement was proclaimed on 12 May 2005. Arguably, many Canadians do not understand the policy or how Government will effectively implement it.[69] As such, individual CF officers are left to wonder how they are to understand a national policy based on such vague assertions.[70] Furthermore, of special note is the fact that only in one place does the new Defence portion of the International Policy Statement mention the importance of a truly "professional" military in Canada – within its conclusion: "The success of Canada's military will ultimately depend, as it has in the past, on its people – their professionalism, their skill and their training."[71] Interestingly, the word "education" is missing from this governmental declaration.

To continue, recent CF forays into the realm of the Canadian news aptly shows that the Trinity is still in much need of repair. The Chief of Defence Staff, General Rick Hillier stated that the purpose of a military is to protect Canada and that killing was an acceptable means for ensuring such protection.[72] In response, one amongst many, a Canadian citizen replied that the job of the CF was less about killing people then helping to keep the peace and that the CDS's comments were pathetic.[73]

The issue is not whether the CDS was correct in his statement but whether he should be attempting to educate the Canadian public, an equal yet separate third of Clausewitz' Trinity. Further study should examine the impact of such forays into the realm of political responsibility for it is not the Chief of Defence Staff's responsibility to prepare Canadian society for war's inevitable death: Government has such authority and responsibility. A possible explanation for the General's actions relates directly to the Minister of National Defence's 1997 reactions to the CF's problems: "Frustrated with its senior soldier's outdated ideas, obfuscations and apparent dithering, an impatient civil government acted with its fullest authority."[74] Perhaps in frustration, perhaps in a strong desire to prepare an ignorant and unresponsive Canadian public for "bodybags from Afghanistan", General Hillier is attempting to bridge the gaps that currently exist between the

individual entities of Clausewitzian Trinity in Canada; however, in doing so, he may be weakening what he is attempting to strengthen.

Ultimately, this paper asserts that if they desire a strong "profession of arms", CF leadership must establish the parameters for how CF members should professionally act and think when interacting with the other aspects of the Trinity; always remembering that a country's military is in service to its citizens and subordinate to the direction of Government. According to senior CF leadership, such parameters are found within the CF's capstone manual, *Duty with Honour: The Profession of Arms in Canada*.[75] However, according to LCol Bentley (ret'd), the CF is currently lacking a profession of arms identity because it does not understand the very premises of its professional ideology nor its place within Clausewitz' Trinity.[76]

This Canadian citizen becomes further confused upon absorbing this quote by Major David Last,

> Exporting education is one of the most powerful tools [the CF has] to influence the world around us…. We should think strategically not only about developing effective education for ourselves as military professionals, but about exporting it within government, to Canadian society, to other military forces, and the international community.[77]

By implication then, should it be up to the Canadian military to educate the Canadian public on CF strategic and operational issues? The traditional answer is: No. However, action begets speech.

To return to Snider's *military professionalism* approach introduced at the beginning of this paper, the very essence of military professionalism is based on a military's war-fighting purpose. As previously mentioned, Government has firmly set out this purpose in the new International Policy Statement. Regretfully, there is little mention as to how senior political leadership perceives the connection. Militaries that diminish the purpose of warfighting in lieu of other endeavours do so at their peril. When its political master does it for them, Clausewitz' Trinity has little chance of attaining its purest form. Ultimately, the result for the CF is a "profession of arms" abhorring its past, unsure of its current professional foundation, and confused about its future:

> Our society is more sceptical about the justifications for war, and is well placed to make a contribution to international security. If we focus only on fighting and winning wars with the latest technology, we will not be able to serve the purposes society will demand of our profession.[78]

CONCLUSION

The perception of many of the problems facing the military profession in Canada has not varied significantly in 40 years albeit coming to a head during the *Somalia Affair* and multiplying in the 21st Century—the Trinity is still in much need of repair. As implied throughout this paper, a possible remedy is the professional understanding that all that members of the "profession of arms" in Canada can do to prevent another Allard "disaster" is to "control" itself. Such knowledge and understanding is, arguably, only attainable via the governance structure of the Canadian Defence Academy and its ongoing ability to successfully implement the strategic vision of *Officership 2020* and its capstone manual, *Duty with Honour: The Profession of Arms in Canada*. This Canadian citizen believes that Canada's military effectiveness is dependent on the Canadian Defence Academy's continued sustainability and is looking for a similar belief from the Chief of Defence Staff and the Federal Government of Canada: We shall wait and see.

As epitomized by *The Rowley Report*, a unified, centralized, professional development system is the first and foremost requirement for developing officers who are critical thinkers and highly adaptable believers in a "profession of arms". Incorporated in such a requirement are the four pillars of Canadian professional development: experience, education, training, and self-improvement.

This paper has attempted to show that a "positive impetus" came out of the death of Shidane Arone. The horrific act awakened both the minds of the politicians and senior leadership's mind to the CF's absolute need to ground its existence in a formal professional ethos while preparing for the global, social, and technological uncertainties of the future. The journey is still in progress for recent excursions by the current Chief of Defence Staff, General Rick Hillier, into the realm of political mastery raises questions once again to the health of the "profession of arms" in Canada.

In presenting *Officership 2020* as the strategic answer to the illnesses of the past and the "light" of the future, this paper briefly examined two fundamental strategic objectives at issue: (1) the ordered application of military force, and (2) highest standards of professionalism. The paper's final analysis implies that as the CF chain of command begins at the top, the CF's ability to sustain *Officership 2020* during its development stages must begin at the top with the Chief of Defence Staff. If senior command do not understand and "live" the professional vision of *Officership 2020*, then all is lost for losing sight of the primary purpose of the CF creates confusion in the minds of CF members and Canadian citizens alike. Clausewitz' Trinity must and cannot be ignored. The Canadian public and the Government in authority are as much responsible for the shaky "profession of arms" in Canada as are its military professionals. However, although it is easy

to argue that each entity must share in the other's purpose and responsibility, CF leadership must learn to understand that they cannot control or outright dictate the beliefs of the other entities. Continued actions by senior military leadership to attempt to educate/influence Canadian society and the political directions of the Canadian government only succeeds in weakening the "profession of arms" ideal in Canada to the detriment of its *raison etre*.

This Canadian citizen hopefully wishes for a highly professional, 21st Century Canadian Officer Corps, able to build on the lessons of the past, enthralled with the vision of a new professional development strategy, serving and protecting Canadian society with honour, actively responding to the changes of today, and anticipating those of the future.

Canadian Officership: A Profession in Progress - on a journey to who knows where!

Note: The issues implied in this paper were the focus of the 6th Canadian Conference on Ethical Leadership: Duty With Honour, 16-18th October 2005; www.cda-acd.forces.gc.ca/cce16/engraph/home_e.asp. This conference was sponsored by the Canadian Defence Academy, its Canadian Forces Leadership Institute, the Royal Military College of Canada, and Queen's University.

Notes

1 Foreword by Jean V. Allard, in Major General Roger Rowley, chairman, *Report of the Officer Development Board*, Department of National Defence, March, 1969, vol. 1, p. iii. [Hereinafter *The Rowley Report*]

2 For ease of reading, the Canadian Forces (CF) is meant to also include the Department of National Defence (DND). The author notes that while each is a separate entity, both are inherently interconnected.

3 Ronald Haycock, "The Labours of Athena and the Muses: Historical and Contemporary Aspects of Canadian Military Education," in *Military Education: Past, Present, and Future*, eds. Gregory C. Kennedy and Keith Neilson, (Westport: Praeger Publishers, 2002), 171.

4 For a further analysis of this traditional military professionalism approach, see Snider, Don, John Nagl and Tony Pfaff. *Army Professionalism, the Military Ethic, and Officership in the 21st Century*. Carlisle: PA: Strategic Studies Institute. (2000), www.usafa.af.mil/jscope/JSCOPE00/Snider/Snider00.html. (2 July 2004).

5 Lieutenant-Colonel Bill Bentley, *Professional Ideology and The Profession of Arms in Canada*, (Toronto: Canadian Institute of Strategic Studies, 2005), 27,41

6 Samuel P. Huntington, *The Soldier and the State* (Cambridge: Harvard University Press, 1957), 14.

7 Major David Last, "Educating Officers: Post Modern Professionals to Control and Prevent Violence," In *Contemporary Issues in Officership: A Canadian Perspective*, Ed. Lieutenant-Colonel Bernd Horn (Toronto: Canadian Institute of Strategic Studies, 2000), 26.

8 Allan English, Understanding Military Culture: A Canadian Perspective, (Kingston: McGill-Queen's University Press, 2004) English, Allan. p. 107.as quoted from Michael Howard, "Military Science in the Age of Peace," *RUSI Journal* 199, no, 1 (March 1974), 3-4.

9 David Bercuson, "What's Past is Prologue: The Global Soldier of the Future," A Paper Presented to the Pacific Armies Management Seminar, Calgary, Alberta, (29 August 2002), 15-16.

10 Studies such as *Report of the Study of Professionalism in the Canadian Forces*, Ottawa: CDEE, 1972; MGen C.G. Kitchen, *Out Service Training for Officers*, Ottawa: ADM (pers), 1985 [The Kitchen Report], Colonel David Lightburn, *Senior Officer Professional Development*, Ottawa, 1986 [The Lightburn Report], and LGen R. J. Evraire, *General and Senior Officer Professional Development in the Canadian Forces*, 1988 [Evraire's Study].

11 Lt. Gen. Robert W. Morton, chairman, *Report of the Officer Development Review Board* for the Chief of Military Personnel, NDHQ, August 1995. [Hereinafter *Morton Report*].

12 For a detailed explanation of the detrimental effects of unification and integration, see John A. English, *Lament for an Army: The Decline of Canadian Military Professionalism* (Concord: Irwin Publishing, 1998), 53-57.

13 See Footnote 1 –*The Rowley Report*, iii.

14 *The Rowley Report*, Vol. 1, 46-47

15 Randall Wakelam, "Officer Professional Education in the Canadian Forces and the Rowley Report, March 1969", via personal email, 25-27. This author received personal copy of paper via email (5 August 2005). Published copy is available in the *Historical Studies of Education*.

16 Prof. Ronald G. Haycock, *Getting From Here to There: Trauma and Transformation in Canadian Military Education*, www.academic.sun.ac.za/mil/scienta-militaria/Internet (28 July 2005).

17 Haycock, *Military Education*, 177.

18 Haycock, *Getting From Here to There*, np.

19 Ibid.

20 WakelamIbid., 29.

21 Bercuson, David J. *Significant Incident: Canada's Army, the Airborne, and the Murder in Somalia*. Toronto: McClelland and Stewart Inc. 1996.

22 Ibid., 237.

23 Minister of Public Works and Government Services of Canada, *Dishonoured Legacy: Report of the Commission of Inquiry into the Deployment of Canadian Forces to Somalia, Executive Summary*, (Ottawa: Canadian Government Publishing, 1997), 34. (Hereinafter Executive Summary).

24 Donna Winslow, "The Parliamentary Inquiry Into the Canadian Peace Mission in Somalia," *A Paper presented at the 4th Annual Workshop on Strengthening Parliamentary Oversight of International Military Cooperations and Institutions*, Brussels, 12-14 July, 2002, http://www.google.ca/search?q=cache:9xb3xeV13mQJ:www.dcaf.ch.news/PCAFjuly 2002/WINSLOW.pdf (9 June 2004).

25 Broadly speaking, see *The Globe and Mail* and *Ottawa Citizen* covereage throughout the Inquiry's public hearings. The author notes that *Maclean's Magazine* also ran articles in 1992, 1993, 1998 and 1999 pertaining to murder, racism, hazing, and sexual assaults within the CF. As the author does not specifically address these issues, these articles are not currently cited.

26 Winslow, "The Parliamentary Inquiry". np.

27 The Commission of Inquiry in to the Deployment of Canadian Forces to Somalia [*The Somalia Inquiry*]. See *Dishonoured Legacy: Executive Summary*, Table of Contents for a listing of the topic areas, p. es-iii. In summary, the Somalia Inquiry identified ten

major areas for reform in the Canadian Forces: Leadership, Accountability, Chain of Command, Discipline, Personnel Selection, Training, Rules of Engagement, Openness, Military Justice System, Operational Readiness, Mission Planning, and Military planning. As well, see the *Report of the Somalia Commission of Inquiry*, V.1-5, http://www.forces.gc.ca/site/Reports/Somalia/index_e.asp (1 Dec 2003).

28 For a detailed explanation of the intricacies of the "cover-up" see Desbarats, Peter. *Somalia Cover-Up: A Commissioner's Story*. Toronto: McClelland and Stewart, 1997.

29 *Executive Summary* ES- 51

30 *Dishonoured Legacy*, Vol. 5, p. 1451; as summarized by Karol W.J. Wenek, Project Director CF Leadership Doctrine, *Looking Back: Canadian Forces Leadership Problems and Challenges Identified in Recent Reports and Studies*, Kingston: Canadian Forces Leadership Institute, June 2002, 8.

31 Huntington, 189-192.

32 Minister of Public Works and Government Services of Canada. *Report to the Prime Minister on the Leaders and Management of the Canadian Forces*. Ottawa: Canadian Government Publishing, 30 June 1997. (Hereinafter *Leadership Report*). The Minister's independent Reports were prepared with the assistance of David J. Bercuson, PhD, FRSC, University of Calgary; Dr. J.L. Granatstein, Canadian Institute of International Affairs; Professor Albert Legault, Laval University; and Desmond Morton, McGill Institute for the Study of Canada, etc.

33 *Report to the Prime Minister, A Paper Prepared for the Minister of National Defence by Desmond Morton, McGill Institute for the Study of Canada*, March 25, 1997, http://www.forces.gc.ca/site/Minister/Morton/MORTON1e.html. (Hereinafter Morton Report); Report to the Prime Minister, A Paper Prepared for the Minister of National Defence by Alfred Legault, Laval University, March 25, 1997, http://www.forces.gc.ca/site/minister/eng/Legault/Legault_cont_.html. (Hereinafter Legault Report).

34 *Report to the Prime Minister, A Paper Prepared for the Minister of National Defence by J.L. Granatstein*, http://www.forces.gc.ca/site/minister/eng/Granatstein/gra2main.html. (Hereinafter Granatstein Report).

35 *Report to the Prime Minister, A Paper Prepared for the Minister of National Defence by David J. Bercuson, PhD, FRSC*, University of Calgary, March 25, 1997, http://www.forces.gc.ca/site/Minister/eng/Bercuson/berc4.e.html. (Hereinafter Bercuson Report).

36 Ibid., np.

37 For a complete list of the recommendations, see *Leadership Report*, 42-43.

38 Ronald G. Haycock, "The Labours of Athena and the Muses: Historical and Contemporary Aspects of Canadian Military Education," *Canadian Military Journal* (Summer 2001), 7.

39 The Monitoring Committee was established on October 14, 1997. Its original members were John A. Fraser, David J. Bercuson, D. Bevis Dewar, Sheila Hellstrom,

Carole Lafrance, Laurier L. LaPierre, and John Rankin. The Committee prepared three main reports with its Final Report dated June 2003. The Monitoring Committee disbanded November 2003.

40 For a further explanation of the Monitoring Committee's mandate and areas of responsibility, see *The Minister's Report on the Committee on Change in the Canadian Forces and the Ministry of Defence*, Introduction, 31 March 1998, http://www.forces.gc.ca/site/Minister/eng/Monitoring/preliminary/.htm (5 June 2004).

41 For Interim Report 1998, *Interim Report 1999*, *Progress Report II 1999*, and the *Final Report 2003* see the Minister's Monitoring Committee Reports and Other Monitoring Committee Reports at http://www.forces.gc.ca/site/reports/mmcc/final_report_e.asp. .

42 *Minister's Monitoring Committee Final Report 2003*, Professional Development, Education, and Leadership at http://www.forces.gc.ca/site/reports/mmcc/final_report_e.asp (25 May 2004). [Hereinafter *Final Report 2003*]

43 Ibid., np.

44 *Minister's Monitoring Committee on Change in the Department of National Defence and the Canadian Forces: Final Report – 1999*, 8.

45 *Final Report, 2003*, np.

46 Specifically, under the Minister's direction, the Vice Chief of Defence Staff (VCDS) was directed by the Minister to develop a long-term professional developmental strategy. To ensure that the strategy was created and implemented, the Chief of Defence Staff appointed LGen Romeo Dallaire as Special Advisor on Professional Development (Feb 1999) tasked with the responsibility to prepare a strategic document addressing officer education and professional development. Research for the forthcoming strategic document was extensive and included a questionnaire survey, sent to over 800 officers, who responded with information about the leadership challenges that they had encountered throughout their operations in the 1990s. The statistical information was collected and processed through the Office of the Special Advisor resulting in The Debrief the Leader (Officer) Project and the subsequent creation of *Officership 2020* : -Canada. Department of National Defence. *Canadian Officership in the 21st Century: Strategic Guidance for the Canadian Forces Officer Corps and the Officer Professional Development System*, February 2001. An equivalent non-commissioned member strategy was also created, *NCM Corps 2020*; however, due to the limits of this paper, that document is not specifically addressed. However, the author acknowledges its fundamental relevance and will proceed with its examination at a later date.

47 See Canadian Defence Academy, www.cda.forces.gc.ca.

48 … and its sister document, *NCM Corps 2020*: see above.

49 Telephone Interview, Lieutenant-Colonel Bill Bentley, 10 June 2005.

50 *Officership 2020*, Foreword. For a full understanding, the author recommends a

thorough read of the document. The author notes that there is no further explanation provided in Officership 2020 as to what the reform program entails or why it was implemented.

51 Ibid., 5.

52 These eight strategic objectives are: the ordered application of military force, the application of sound leadership, the highest standards of professionalism, an officer who thinks critically, an officer who embraces and manages change, the CF is a learning organization, the CF is a career of choice, and the CF will direct a flexible officer professional development system in a decentralized manner. Ibid., 6-7.

53 In summary, the key action initiatives include ensuring intellectual development, improving the common body of knowledge, developing policy, concepts, and doctrine, strengthening the military ethos, cultivating external relationships, providing OPD flexibility, providing organizational capacity, and establishing accountabilities. Ibid, 7-8.

54 Ibid., 14.

55 Ibid., 7.

56 *Officership 2020*, 6.

57 Ibid.

58 Ibid.

59 Ibid.

60 Ibid., 7.

61 Lieutenant-Colonel Bernd Horn, "Introduction," *Contemporary Issues in Officership: A Canadian Perspective*, ed. Lieutenant-Colonel Bernd Horn (Toronto: Canadian Institute of Strategic Studies, 2000), 3.

62 Colonel Stuart A. Beare, "Experience in Officer Professional Development: A Pillar of Peril", *The Army Doctrine and Training Bulletin: Canada's Professional Journal of Army Issues*, Vol. 4, No. 4, (Winter 2001), http://armyapp.dnd.ca/ael/adtb/vol_4/no4/eng_v4no4.pdf (June 5, 2004).

63 Ibid.

64 Telephone Interview; Serving CF Officer, Anonymous. (10 August 2005).

65 Lieutenant-Colonel Bernd Horn, "Soldier/Scholar: An Irreconcilable Divide?" *The Army Doctrine and Training Bulletin, Canada's Professional Journal on Army Issues*, vol.4, no.4 (Winter 2001), p. 3 at http://armyapp.dnd.ca/ael/adtb/vol_4/no4/eng_v4no4-pdf (4 June 2004).

66 Telephone Interview, Lt. Col. Wayne Douglas, Special Advisor to the Commander of Canadian Defence Academy, 6 June 2005.

67 Telephone interview, Colonel Wayne Douglas, Special Assistant to Commander of

Canadian Defence Academy, 16 August, 2005, and Telephone interview with Dr. Foot of the Canadian Forces College, 18 August 2005.

68 Canadian Defence Academy Website, "Command Cell", www.cda.forces.gc.ca/index/engraph/team/comd/Comd_e.asp (29 July 2005).

69 See, Canada. Canada's International Policy Statement –A Role of Pride and Influence in the World: DEFENCE, www.forces.gc.ca (12 May 2005).

70 Telephone Interview. Serving CF officer. Anonymous.

71 See Footnote 69, DEFENCE, 32

72 For a further clarification as to what was said and not said during an informal, on the record media luncheon, see "PM Defends Blunt General," Canoe Network CNEWS Online, (15 July 2005) http://cnews.canoe.ca/CNEWS/Canada/2005/07/15/pf-1133695.html (16 July 2005).

73 Linda McQuaig, *Linda McQuaig Says…*, *Toronto Star*, 7 August 2005.

74 Haycock, "Getting From Here to There," 60.

75 Telephone Interview. Colonel Wayne Douglas, Canadian Defence Academy, 14 August 2005. See, Her Majesty the Queen in the Right of Canada, *Duty with Honour: The Profession of Arms in Canada*, published under the auspices of the Chief of the Defence Staff by the Canadian Defence Academy-Canadian Forces Leadership Institute, 2003; www. cda.forces.gc.ca (10 July 2005).

76 See Bentley throughout.

77 Major Dr. David Last, "Educating Officers: Post-Modern Professionals to Control and Prevent Violence," in *Contemporary Issues in Officership: A Canadian Perspective*, ed. Lieutenant-Colonel Bernd Horn Toronto: Canadian Institute of Strategic Studies, 2000, 32.

78 Ibid.

Stewart Slide Addendum:
Canadian Officership: Strategic Balancing of Education, Training, Operational Experience, and Professional Development

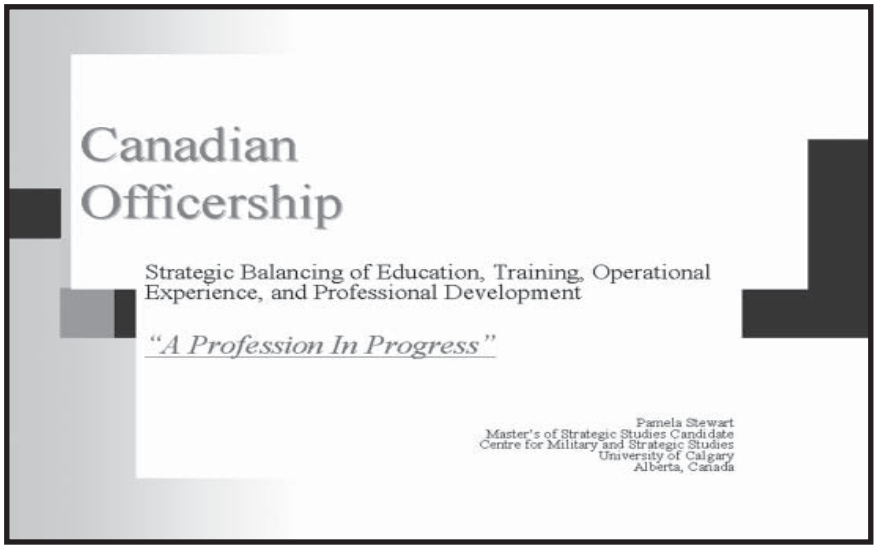

Figure 1

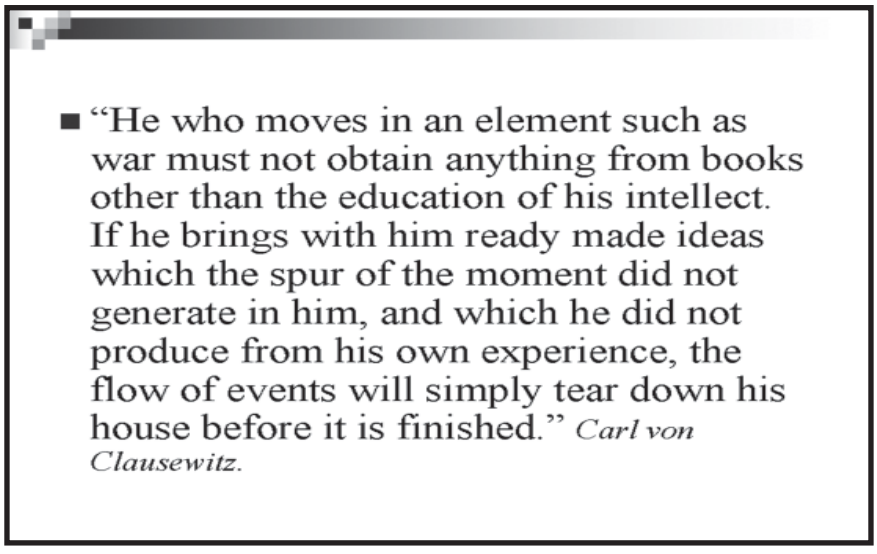

Figure 2

Historical Summary

- **Rowley Report (1969):**
  "It is the ability to acquire knowledge, to analyze and to understand, which must be imparted to our future officers".

- **Morton Report (1994):**
  "All officers (except those commissioned from the ranks), should have a baccalaureate degree. Officer professional development should be formalized thus creating a seamless continuum of education and training."

- **Letters to the Minister of National Defence (1997):**
  "All officers should hold a degree or equivalent."
  "When 1 Canadian in 5 completes a degree or equivalent, there is no longer an elitist pre-requisite for a commission in Canada's Armed Forces. No self professed profession would accept less."

Figure 3

OFFICER DEVELOPMENT BOARD
(ROWLEY REPORT)
1969

FIGURE 2: VARIATION IN IMPORTANCE OF QUALITIES WITH RANK

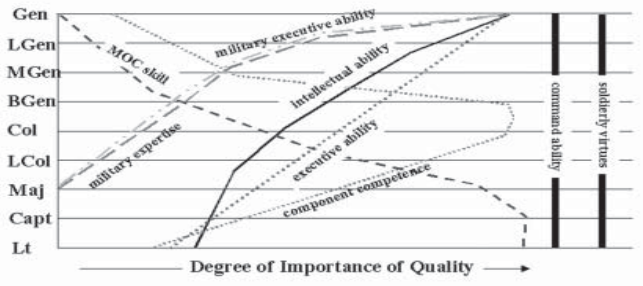

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Figure 4

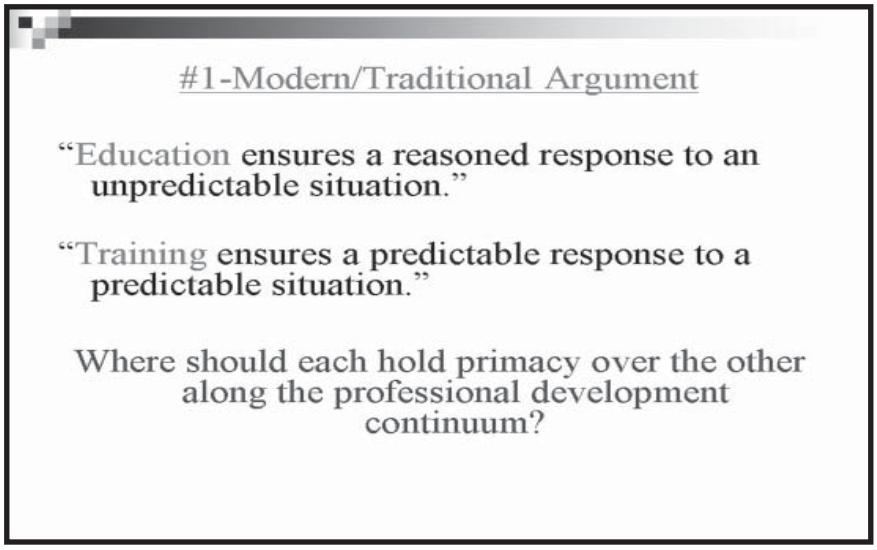


Figure 5

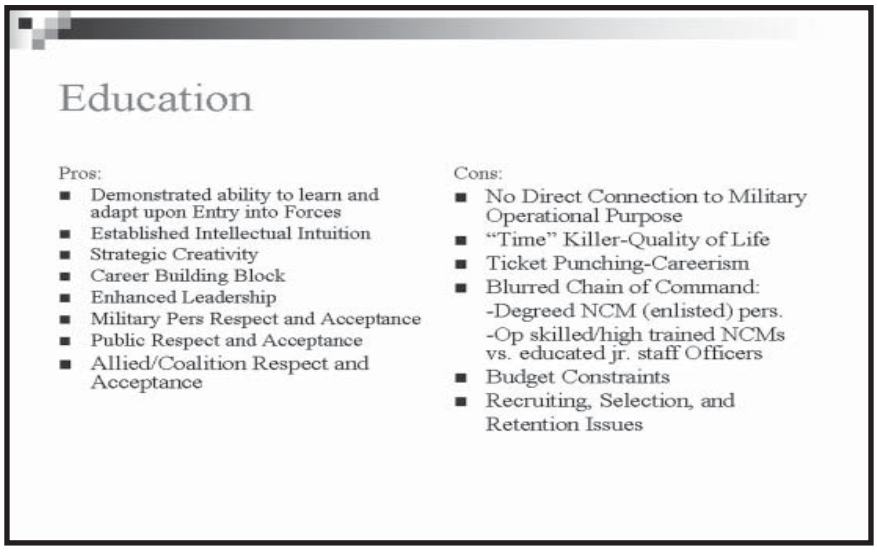


Figure 6

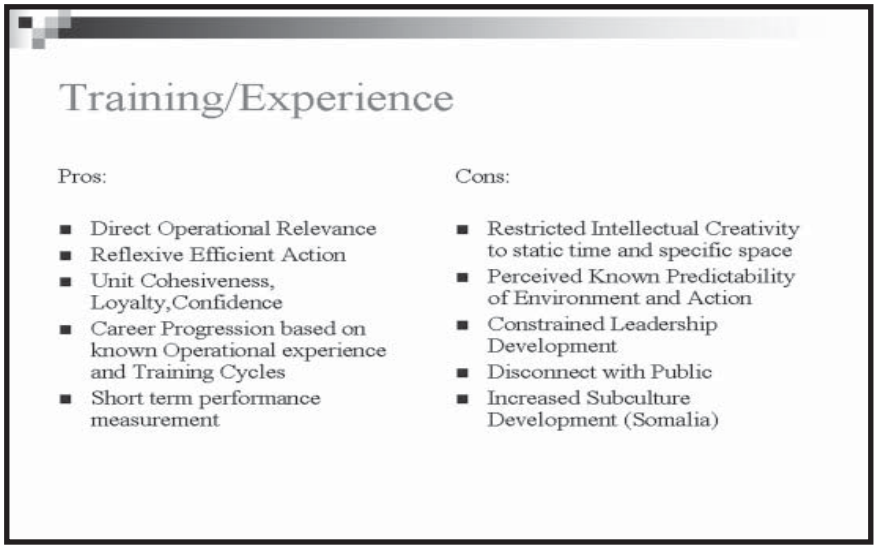


Figure 7

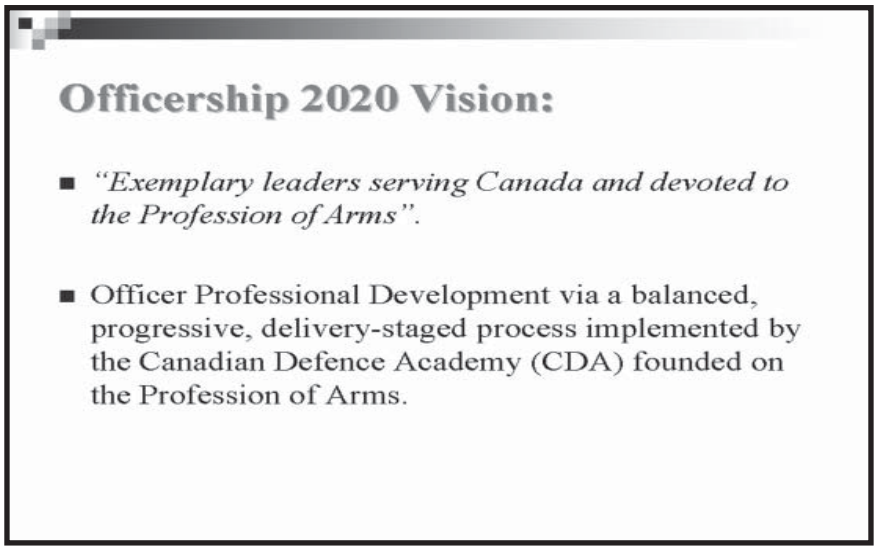


Figure 8

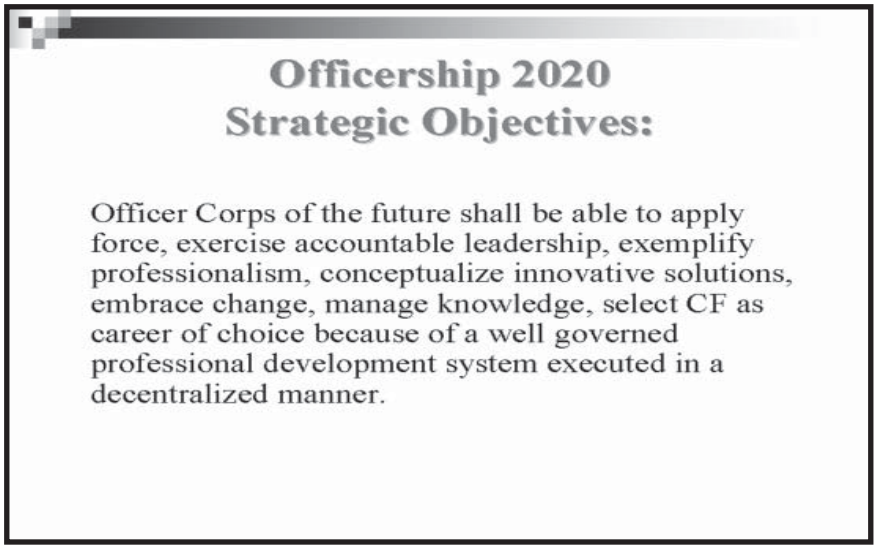


Figure 9

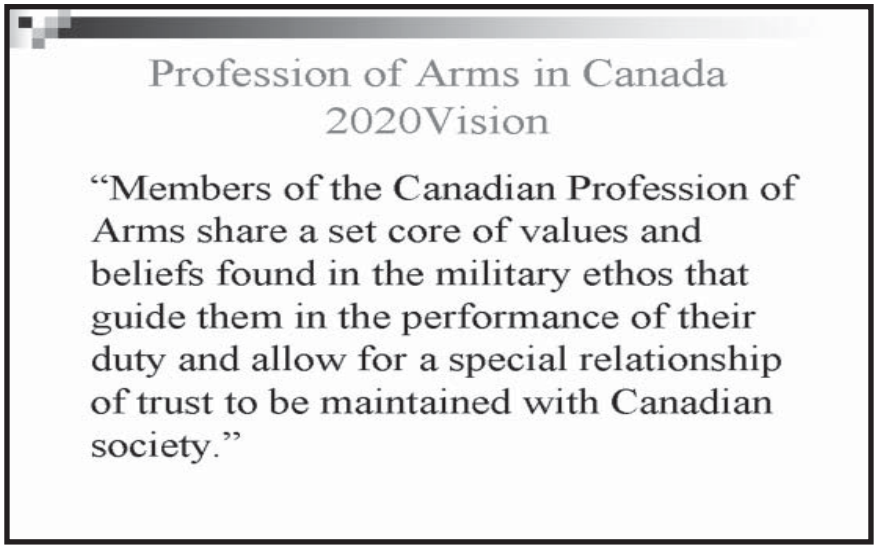


Figure 10

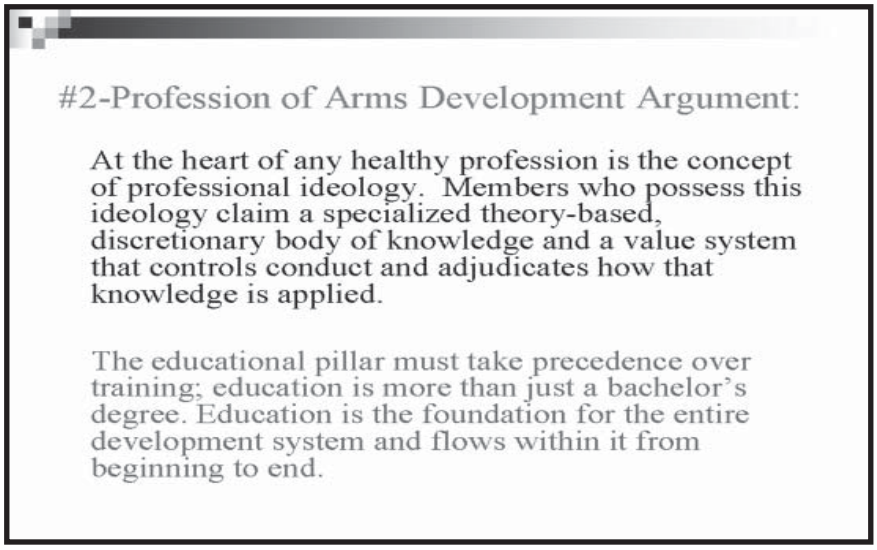


Figure 11

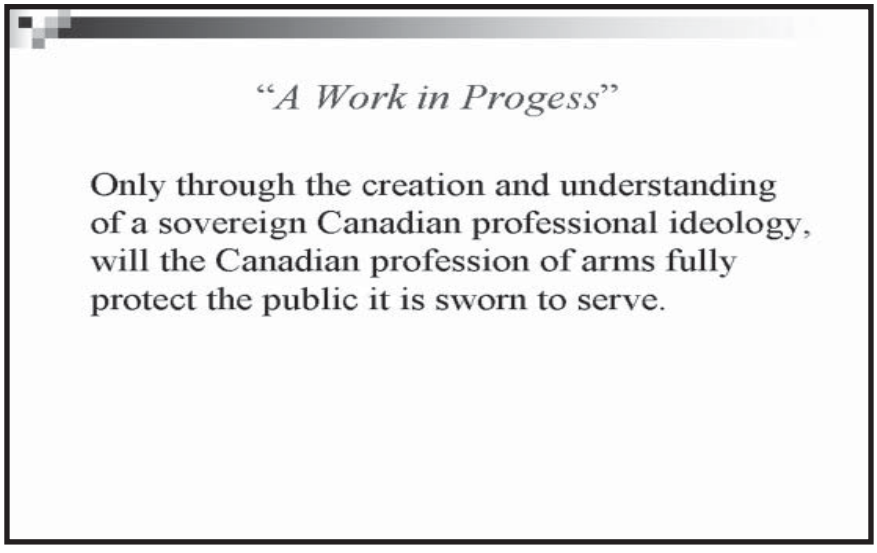


Figure 12

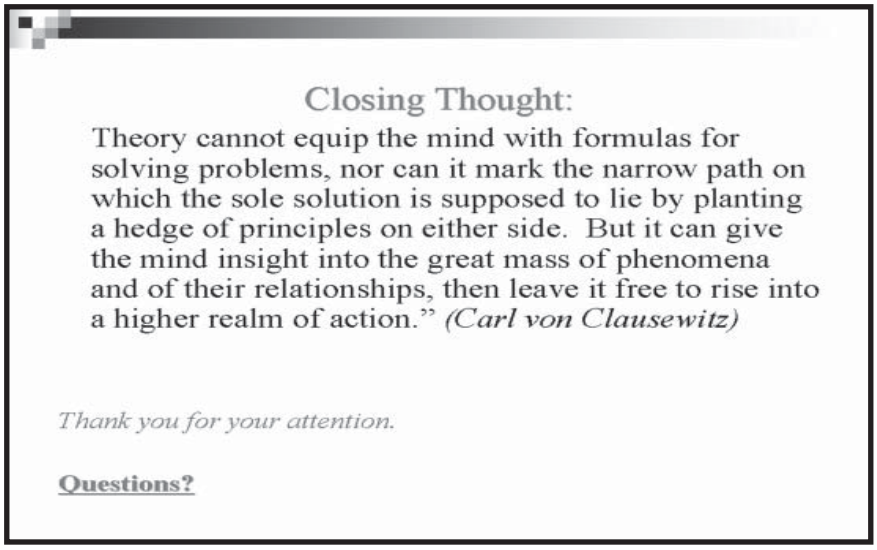

Closing Thought:
Theory cannot equip the mind with formulas for solving problems, nor can it mark the narrow path on which the sole solution is supposed to lie by planting a hedge of principles on either side. But it can give the mind insight into the great mass of phenomena and of their relationships, then leave it free to rise into a higher realm of action." (Carl von Clausewitz)
Thank you for your attention.
Questions?

Figure 13

Day 2, Session 4 Question and Answers

Moderated by
James Gebhardt - Combat Studies Institute (MPRI)

Mr. Gebhardt
With regard to the education and training issue, historically, there was no secular university in the Western world before the 18th century, and of course, military education had already been established at that time, and so the idea of military education didn't coalesce with that of university education for a long time. To the best of my knowledge, the first commissioning programs that offered bachelor degrees were the US Military and Naval Academy in the mid '30s, even though it had long been recognized that, for instance, West Point and Annapolis offered educations that were quite equivalent to undergraduate education.

I don't know the current status, but I know, for instance, that in Germany, until quite recently, very few officers had degrees from universities; they mostly had gone through the German military education program, including the Krieps Academy, which didn't offer degrees. So I guess I'm sort of a little bit confused about whether you're talking about people should have bachelor's degrees, or that you should have a different kind of military education, since I don't really know that much about the content of Canadian military education.

Ms. Stewart
For myself, if Canadians consider that a highly respected profession like law and medicine, engineering, nursing, is based on at least a bachelor's degree, and that those people are people that should be respected, that make decisions, that actually have an impact on the health of community and society, then by implication, military officers should have that same qualification. I agree that a bachelor's degree, like you know, it could be a bachelor's degree in some—basket weaving, for lack of a better word right now—which may not have any impact at all, but over average, like overall, a bachelor's degree as a foundation, it's kind of like, it's evidence that you can think beyond just the training level, that you can take an entire body of knowledge or take a bunch of knowledge from different fields, and make an argument, and use it for some sort of purpose. I know that the stock college courses from the past—actually, prior to 1998—the only way that I've been able to gain access to those courses or the course papers is through the Access to Information, and if you look at the way they were written, the majority of them don't have footnotes; a large part of what I've seen, they didn't have bibliographies. Then you hit 1998, you go to 1999, 2000, by 2001, you're going from 30 pages to 80 pages; you're getting like graduate-level professional papers. So it's the only way for myself to gauge what was done before to what is being

taught now. But again, I didn't go through the system. I was a junior Naval officer—trying to get colonels and generals to talk about how they were educated during the '80s and '90s is very difficult because of the Somalia inquiry and the stigmatism that it's put on the Canadian Forces command. Thank you.

Mr. Gebhardt
General Brown?

Audience Member
I was interested in trying to cross-walk from several presentations, in that the argument's been made that the Canadian senior leaders or officers have not positioned themselves to be respected by the society they serve. The argument's also been made that the Canadian public is hostile to the notion of participating in what's fairly sophisticated in the technical subject of missile defense. And it was seen that the people who could best explain the virtues of participating in missile defense to the Canadian public would be the officers who would be most familiar with it. But are they stymied because they're not respected by the public that they would be trying to convince? Then, just to make sure we get the third leg in, was it different in World War II? Have Canadian officers been more respected in the past, or is this a long-term malaise? Any one of you can start. [Laughter]

Ms. Stewart
I would say that the primary problem is that the government has shut down the ability of the military to speak on its behalf, beyond doing anything but justifying the government's policy. An example of that would be one general, who is no longer in the forces, but I still won't use his name, who was told that if he wasn't quiet about missile defense, he would lose his job. That was it. You were not to be telling the Canadian public even the reasons for participation or against anything neutral.

Numerous times when I've done interviews, I've been told that if I bring up the term missile defense, the interview will be over. So there's not even a possibility for the military, in many cases, to come forward and say the things that you do hear military officers saying in the United States. Obviously, you're limited as a military officer in what you can say—you can't take a political position. But the discussions actually shut down in Canada. Our major foreign policy engagement right now is Afghanistan—there's not been a single hearing on that in the Parliament. Defense policy is simply not discussed, and the reason for that is that the government believes Canadians are highly hostile. Now, they are hostile to some elements of it, but they're also, in general, very supportive of Canadian forces themselves, you know, of the "support our troops" stuff. But after the

Somalia inquiry, I actually conducted a study with some colleagues at UNC that looked at the media reports and how incredibly negative they were, in terms of the language that was being used and that sort of thing, and it really scared the government into believing that the best thing to do was to take money away from the military at that time, put it into other programs, because the military was completely unpopular. While we're seeing a resurgence—probably the highest levels of support since World War II for the Canadian military in the population right now, we're not seeing the government respond to that other than they were promised a significant budget increase in the most recent budget, which the US would still spend in about a week. [Laughter] But it's back- loaded—most of it is five years away from now before that funding will even kick in. So I think a lot of it is more government standing in the way, rather than citizens who don't support the military itself.

MAJ Boire

Let me put this in American terms if I can, and if I screw up the analogies, excuse me; it's not a lack of respect, it's just that it's cold where I live. [Laughter] All right. Can you imagine the Chairman of the Joints Chiefs of Staff, who, during his tenure, never met the President? Not once. Not once. Can you imagine that? Never met him. Was not called to his office; didn't receive a phone call. Can you imagine the Chief of Army Staff, Air Force Staff, Navy Staff, Coast Guard, Marines, who never, never met another Cabinet Minister? Can you imagine a general office class where its members cannot stand up and defend a point of view in front of crowds of hostile defense bureaucrats? I mean, this is where we are. This is why the young ladies on the left made the comments they did—that you do have, in fact, a senior officer cadre completely—completely—cut off from the mainstream of defense decisions, not decisions across the government. So there you are; there are a couple of analogies.

Can you imagine a group of senior military officers not knowing the presidents of Canada's or of your country's largest defense producers? Can you imagine the United States Air Force not knowing where Boeing was? Can you imagine the United States Army not knowing where Chrysler is? Can you imagine the United States Navy not knowing where Litton Industries is? That's where we are.

You also have, in our country, a certain analogy that—I don't know if this is true here—but you have senior officers who hold and carry—unofficially, all right?—political ties. Are there Democratic generals in the organization? Are there Republican generals? There aren't liberal generals, nor is there storied generals in our organization, and it's that kind of political stamping that makes them increasingly unable or unwilling to express themselves.

We have now begun performing like proper auxiliaries—the great Roman legions—and we send our senior officers off to the United States Army for training. We should have done it a long time ago, but we didn't, because we are proper auxiliaries and we know our place. [Laughter] I'm being facetious, but that's the way it's being seen back home. We bring back—you know, we receive back from Fort Carlisle, from Fort Hood, from Fort Leavenworth, we receive officers who have in fact been exposed to other kinds of military regimes, examples, cultures. They come back and they're better communicators, they're certainly more worldly, and they become more popular. In fact, dare I say, some of them are even becoming inspiring. [Laughter]

So, that's where we are. But at least we are—my facetiousness aside—at least we are going out and trying to get better exemplars. In terms of officer education, remember, the Canadian officer education recruiting system is built on indentured service—the same service we people in the North America continent left two centuries ago. All right? If we want an officer, well, we bribe him. All right? "You're coming out of high school, kid. We're going to give you four years of education, you're going to be an officer for five years. There it is. You want that? Let's make a deal." That's where you are.

Consequently, the remarks made about developing some kind of officer profession which has at least a self-image, if not, the system of education, is very, very difficult, because you have, in fact, this exchange of goods. Sure, there are several members of the Armed Forces officer cadre that are highly respected and highly motivated and highly this and highly that. But it's awfully hard to do that in a society where the profession itself isn't widely admired. I'll give you one last example. As I said in my comments, I had the honor of serving three American senior officers, and as I served them, I had a lot of friends in this organization, and I was amazed that, as these officers left the United States Army and went on to get civilian jobs, that shift in their lives, that transition was not considered to be particularly traumatic. Here, they had no problems with the idea that they had to go off and get a job someplace because they knew they could sell themselves. A question of confidence, a question of background, and I suggest to you a question of the place of the officer cadre within American society.

In our organization to leave the Armed Forces, even as a middle officer, is an extremely difficult decision because you don't know what kind of job you're going to get because your experience of life, your experience of management, your experience of leadership is automatically in many cases discounted. Consequently, you have a senior officer class that is exceedingly loathe to say "that's wrong, I'm leaving". They stay because they don't know whether they're going or not. So that's what I have to say about officer development,

but again you're dealing with an organization that operates in an exceedingly cranky society. An exceedingly cranky society that fears the outside. The anti-Americanism is real in Canada. It has historical basis like all other mythologies it has a historical basis. It's not rational, but there it is. And a lot of the anti-militarism is associated with that anti-Americanism. You see, in Canada, we have this piece of software called "The milita myth." Unfortunately our historical experience, because of our size, tends to hammer the myth into reality. That mythology is "don't worry about war; when it comes there will be lots of time to build an Army, Navy, and Air Force. We'll always be in a grand alliance with either our American cousins, or our British cousins—ex-masters—so don't worry about it, there'll be time". So consequently when you have that kind of militia mythology mindset, when your principle operating system says "don't worry about it, you don't need this armed organization in time of peace, in time of war we'll have one we'll build one and be successful". In light of that kind of mythology, you're not going to build very much in time of peace. Unfortunately, because of our middle-rank position, history confirms the mythology, which is what Italy's all about. [Laughter]

Mr. Gebhardt
Let's have one more question, please. In the back.

Audience Member
Perhaps, I guess the question would be directed to all of you. Perhaps it would be the cold climate or the bad case of Affluenza, or the mixture of French blood, but I wonder, this seems to be clearly a social problem in Canada that you had what seems to me a clear lack of respect. In fact, PBS in the United States has had recent documentaries on how bad the Canadian military—particularly the Air Force—how bad off they are, and that they don't actually have planes to train in. So I wonder, can you actually do anything about the problem that you have? Is there any way to change Canadian society? I don't know enough about it to know whether it can move to the left or the right or up or down or if this is possible to build this kind of Colin Powell-esque respect for military leaders.

Ms. Stewart
I'll just briefly answer. For myself, being not a liberal, fairly conservative in my political views, but understanding reality in Canada, for me, the Canadian Forces, if they are able to build an ethical profession of arms that a Canadian society can understand, based on Canadian values and beliefs, then the respect will naturally come at that point. It's a way for the Canadian Forces to take responsibility, to take a handle, because the Canadian Force is not going to be able to change the government or the policy way. I personally think that we have about a decade,

like—God forbid—15 years of minority governments in our country. Trying to get anything going for the Canadian Defence is going to be extremely difficult. I think the Canada Forces, the senior leadership, just needs to sort of separate itself on a professional, ethical level. That's the only answer I can give. Thanks.

MAJ Boire
If I may, since 1938, we have empirical data on just how Canadian public opinion works, like in this country. We have polls, from '38 onwards. We know how Canadians react, we know how Canadians think about political issues. There are grand moments in military history where this collective bloodlust—which we forgot back when we beat the Iroquois—resurfaces. [Laughter] It happens in the spring of 1915, and it happens again in September and October of 1941, where the country decides that there's a war to be fought. All right? Until those two moments in those two great conflicts, the only people who were in fact advertising for armed forces and for participation in war were the gentlemen and ladies—a few of them—of the Canadian Manufacturing Association, who saw these wars as business opportunities. At those points in time, there were radical overnight changes in public opinion—not associated with a particular black moment, like a 9/11, but just a very, very sudden realization that the country was at war, and that it had to carry on, and win the war. This shift in 1915 gives us the big army of 1916, and the shift in 1941 gives us Dieppe and Hong Kong, and other grand Canadian victories of '41 and '42. But nevertheless, it happens. So the point of this comment is that if you in fact have these moments where public opinion shifts, then you'll have the attention that the organization deserves, I would argue. Certainly, the American-trained senior Canadian officers who are in positions of authority now are trying to make that happen through their public pronouncements, and are doing, if I may say, a wonderful job of being exemplar leaders. Wonderful job, and let's hope there's more of them in the pipeline.

Ms. Stephenson
Just to wrap it up, the company I work for actually works with the problem of how Canadians perceive the military and affairs, and that's why we work in television; that's why we're a documentary firm. It's not that we started as one; it's that we realize the average Canadian doesn't read public policy reports, they don't go to conferences. Many of them don't even read the morning newspaper—in my apartment building, I think I'm the only person on my floor who gets it. But everyone watches TV and everyone has a television. And in terms of schools, there's not an education in universities or particularly undergraduate and high school programs for these students that Canada even has a military history. It kind of starts in peacekeeping; there might be a day on World War I and World War II combined. So there's not really any kind of information being transferred

to these students, and we're designing courses in strategic culture. We actually have one now at Queens University, which is right next to the Royal Military College, teaching students about what it is to have a strategic culture, even. Do we have one? Is it unmilitaristic? Is it underdeveloped? Is it just lacking? What is the problem? But it's essentially a cultural issue and it's a cultural understanding, in a country where people are willing to allow their armed forces to get to the state that ours got to, because ultimately, who's responsible? The Canadian people are. We didn't stop it; we kept electing the governments that did this. I would suggest that it's because there's a natural cultural problem with the understanding of the rule of the forces in the military. It's probably not something that's going to be solved in one or two years; it's something that's going to be generational. It's going to be, if you can educate this next generation of young people coming up and growing up, who we show the videos to of what Canadians do in war zones, why we do it, and the response, inevitably, from these first and second-year students is, "Well, how come no one ever told me this? I didn't know." Complete blanks. I think that's a significant problem; it's simply not in our education system in the way that it is in the American education system, and American students are very aware of the military—what it does, and its history.

Mr. Gebhardt
A few more brief comments.

Ms. Stewart
I'll just make a brief comment with respect to Major Boire, Colonel Bentley, the commanding officer of the Canadian Defence Academy—these individuals are all extremely professional and expert intellectuals. What I was saying earlier was not perhaps fact; it's just an overall Canadian public perception of the profession of arms in Canada. Thanks.

Mr. Gebhardt
Thank you very much for a very stimulating presentation about the situation of the Canadian Armed Forces. I learned something and I hope you did as well. I welcome you back tomorrow. The folks from the Foreign Military Studies Office are going to talk to us about the war in Chechyna tomorrow morning, and please be there. [Applause] Thank you all very much.

Urban Operations, 1994-2005; Information Operations: Capturing the Media

Timothy Thomas - US Army Foreign Military Studies Office

What I've decided to do with my time is to show you some of the lessons learned, as I saw it from the Battle of Grozny, since urban warfare is playing a very important role right now in Iraq. For those of you who've seen the book out there, Block by Block, there is an entire chapter in there on the first battle for Grozny, and it goes into as much detail as I know about lessons learned—from the Chechen side, and from the Russian side. So I'm not really going to focus on anything I said in there. I want you to see some of the other lessons learned that have come out of this urban warfare that some of you may not have considered, because some of the lessons are unique—they're unique to your access, they're unique to your interpretation, and they're unique to what you're looking for.

Now, the first one, you might think, well, that's pretty obvious —personal interviews with combatants. The interesting thing here is that we had access—we've been very fortunate in our office—we had access to leaders on both sides at the highest levels. We had access to General Anatoly Kulikov, who was the commander of all Russian forces in Chechnya for two years. Through Glen Howard, we had access to Ilyas Akhmadov, who was one of Shamil Basayev's strongest supporters way back in the early fighting; he also became the foreign minister of Chechnya a few years later.

Through interviews with these people, we learned a lot about this type of situation, where we learned how they divided the city up—they did it by dividing it up into four sectors, using the railroad and the river. We learned a lot about the peculiarities of the fighting—the fog of war part—when they went into the battle, what worked and what didn't work, and why they had problems.

Initially, they went into this train station, that you see here in the bottom of the diagram, and when they went in, they actually got on the phone and started calling back home, saying, you know, all we've got to do is order some tickets; there's no resistance here—we can just hop on a train and we'll be home in a week. The Chechens, meanwhile, were ambushing another regiment of Russians up in the North; after they did that, they ran down to the South. These ambushes were being done on the spot, on the move, just with pickup trucks and whatever else they could cobble together. The Russians just sat there, thinking nothing was going to happen, and General Kulikov said he counted 26 RPG hits in one of their tanks down there, so that should give you some idea of the ferocity of the attack that the Chechens laid on them.

The second thing, of course, is journals, radio, and TV. What do you find in these journals? Believe me, the lessons that we've learned from looking at these journals are unique—they're things that we don't think about as Americans; we have our own templates that we use, and the Russians are using something different.

For example, if somebody asked you, how would you take the city of Grozny—we don't really do a great job in this country of teaching operational art to brigade and division commanders; we're really good at doing the tactical side for company commanders, battalion commanders. When we looked at some of the Russian publications, we found out how they went back in time and looked at the structure of street layouts (radial, radial ring, rectangualar, etc). The radial might be Warsaw years ago, where the old city started in the very heart of the center, and then gradually expanded out. Today, we've got more of a rectangular checkboard idea.

When the Russians went in the second time, into Grozny, in January of 2000, they really used the radial ring; they called it the "spider web"—and what they would do is they would try to find an insurgent group in one of those little areas of the web, and then they would try to close off all areas of that web with their own force.

Of course, there were other things they did—they sent in sniper teams, they sent in recon teams—they did a much better job the second time around because they learned a lot of lessons too.

Photographs—As you go back in time and you look at some of the photographs, you'll see some indication that the Tor-1, which the Russians refer to as a flamethrower; it's a heck of a flamethrower—it shoots thermobaric rounds that take out about a 200 by 400-square meter area. There were some shots on ABC that had some weapons that looked like the Tor-1 being shot. We also found some SS-21s that didn't explode that were lying in the streets of Grozny. So there are some indicators there that some fairly powerful SRBMs were used against the Chechens as well.

This is the one that people ignore, to their own peril, and that is: What's coming out of the military industrial complex? Lessons learned are there. All you have to do is see what comes out a year or two later. These are some of them. Pocket artillery, they need a new small arms, more linguists, faster acting recon, this thing called a tank support combat vehicle, and I'll show you some of the IEDs that they used as well.

The Schmel is a shoulder-fired thermobaric weapon—they seem to really, really like the thermobaric. What they've done is taken the thermobaric not only in the

Tor-1 that you saw that takes out the 200 by 400, or the shoulder-fired Schmel which now there's a lot of investigation in Russia that these Schmels were used by special forces in Beslan against the terrorists when they took over the school there, but also they have thermobaric grenades. One of the lessons learned was that when someone was hiding in a building, or they were hiding behind a barrier, a regular stun grenade (the fragments) would not get through the barrier—thermobaric does; it sucks all the oxygen out of the area. So they've been putting together a lot of grenade launchers that have the thermobaric round.

They found out when they got into rooms that the weapons they were carrying were too big, and they needed to go snub nose. So everything they developed went down—you know, they cut the barrel length down. They also found out that once they got in a room and they fired rounds, they were ricocheting all over the place and they were hitting their own guys, so they developed some new ammunition that when it hit the wall, it would just drop.

So this military industrial complex is really, I think, a key to understanding a lot of lessons learned, and a lot of people don't look here, but I think it's really a valuable place to take a peek.

The other thing, then, that we saw—and this covers the second half—was the information battle. The first time the Russians went in, in '94, they would not allow any press coverage—they would not allow reporters to talk to their own soldiers. The Chechens, on the other hand, talked to every reporter they could. As a result, the evening news in Russia was filled with Chechen points of view, and the Russians really understood about a month into the conflict that they had absolutely, positively lost the information war, the public opinion war—public opinion was seriously against them.

The Chechens were so adept at this that they were having reporters fly into Dagestan, the neighboring republic, and than they would pay for their taxicab rides into Chechnya just so they could report on events there. So they really knew how to use the media.

The other thing they did is they went to websites, and they began to show examples of ambushes. By doing that, they really caused the Russian press to become impotent. It was really an interesting moment, because the so-called powerful propaganda and agitation apparatus of the Soviet Union was really nullified, simply because if the Russians said "no, this ambush never took place; the Chechens are just feeding you a line to make you think they're gaining the upper hand"—the Chechens would then put the ambush on the website, and it was not possible to refute that then. So they really changed this whole battle around with this information war.

The second time around, the Russians learned a lot of lessons, and they improved on their own ability to use the press. In fact, they don't let the press go in unless they escort them now. So they don't want the Chechens to talk to the press at all. That's why there was such an uproar—in addition to the fact that we made an uproar about bin Laden on TV—there was such a big uproar about Shamil Basayev on TV.

The other thing we found out is that the Chechens found other ways to use the Internet. If you want to help Chechnya, you can just send money to them to a bank account number posted on a website. The reach is everywhere—it's America, it's Germany, it's England—it's everywhere that they can establish a bank account, somebody can contribute money to the cause.

So insurgents have learned: "We can use the Internet for manipulation, for recruiting, for financing, for obtaining data, misleading law enforcement officials." The Internet is really a place that they've focused. For those of you who have been following what's going on in Iraq [laughter], al Qaeda has several websites now. They hosted one at the University of Michigan, and one at the University of Texas—on their ISPs. They did it for obvious reasons. At the University of Texas, they have a Middle East study group, so they know that a lot of people who have an interest in Arab affairs might be looking there. And the same at the University of Michigan, because Michigan has such a heavy Arab population.

The psychological climate was intense. It's just as intense in Iraq right now—intimidation, provocation, leaflets, the Internet, terrorist actions—it's all there.

Regional and Global Impact of Chechen War: GWOT Theater or Russian Imperial Maintenance; Chechenization and the Balance Sheet

Glen Howard–Jamestown Foundation, Washington, DC

Thank you, everyone, for having me here today. Being a former KU grad, it's always great to come back to Kansas. I've lived in Washington for a number of years, but it's often hard for me to believe that I was once working a night shift in Lenexa, working at UPS, and now I'm given the opportunity to just come back and speak to audiences like you, and hear people here in Kansas, and see my old familiar surroundings. Being in Washington, it's always a great opportunity to kind of get away from Washington and get a breath of fresh air in Kansas.

I think first of all, I'll tell you a little bit about myself, other than being a KU grad. I had the unique opportunity—several years back, I got a master's degree in Soviet studies from the University of Kansas, right at the ending of the Cold War, and I'd worked in Moscow one time in the US Embassy as a translator. I traveled a lot around the country. I went to work at SAIC and became a beltway-bandit for a number of years, and I had a great opportunity in 1999—I was presented with the opportunity to go to Chechnya.

I spent a week there; I went with a religious leader—a Sufi Shaykh—so I was kind of the only non-Muslim in the whole group that went down to Chechnya. I spent a week there and spent a lot of time interviewing, talking to people, and especially President Maskhadov, the former president of Chechnya, that was killed earlier this year.

From that, I kind of began kind of a odyssey of becoming involved in Chechnya, and I now head a committee with Dr. Zbigniew Brzezinski and General Alexander Haig called the American Committee for Peace in Chechnya that's been having an uphill struggle of trying to bring peace to Chechnya. Which is not a foregone conclusion—Chechnya is very much a vibrant issue; it's alive in Russia. There's numerous peace plans trying to end the war. We are on the web at www.peaceinchechnya.org—you can find everything you want about Chechnya, on our website.

I also carry the hat of being the president of the Jamestown Foundation, which is the major information provider on conflict and instability in Eurasia. We have a daily Eurasia Report—I've brought several copies of that with me that I'll distribute in the foyer afterwards. I also brought copies of a book that we've developed on the War on Terror that has a significant section in that book on Chech-

nya, where you've had a lot of leading experts write about Chechnya, reports that we've commissioned about Chechen fighters, Arabs in Chechnya—everything you want to know about Chechnya by what we consider many of the worlds leading experts have written on this issue.

Now, before I begin my talk, as Tim has noted and others have noted, the theme today at the Combat Studies Institute is the theme of transformation. So we're all sitting here in the room and many of us heard about Chechnya, and I'd like to say, you're probably scratching your head, saying, "Well, why is Chechnya important in the issue of transformation?"

Well, I think Chechnya is a very important issue from another perspective that we're in many insurgencies throughout the world, and especially in the Middle East now, but also in the Greater Middle East, where Chechnya falls. That's what we call now a theme of regeneration. The theme of regeneration is that you're now seeing in Chechnya a second, third generation of fighters grow up insurgency commanders that have known nothing but what they call the culture of the Kalashnikov. You're also seeing a society where many of the former commanders in Chechnya—Maskhadov was one of them—that were Soviet-educated; they're all graduates of Arshile Military Academy; many of them have served in military units throughout the Soviet Union. The former president of Chechnya—Dudayev—was a Soviet Air Force general.

So what you're seeing now is a new culture, a new breed of fighters emerge that don't have that education, they don't have the Soviet military background. But what they do have is a very strong culture of growing up in an insurgency, that they know their local surroundings, they have a keen instinct for survival.

Now, I'm going to divide my presentation into two parts. I carry a slide with me that I give a presentation for in my work with activities for the American Committee for Peace in Chechnya, and I've been given the opportunity to speak for 20 minutes. So what I'm going to do is divide this time into two sections, and I'm going to present this section as the last part for ten minutes on my slides, try to give you kind of an overview of things. The other part I'll talk about is the regional impact of Chechnya and the global impact on the War on Terror.

When I begin with that, I'd like to note that Chechnya has had a very key importance to the United States. Pre-9/11, Chechnya was basically a war that was going on in the north Caucasus. The United States was upset about it—there were 400,000 refugees; they had over 100,000 Russian troops in Chechnya. It had spilled over from the conflict on the south Caucasus.

Well, the problem is that Chechnya sits astride some very important, what we call lines of communication. You have the very important Caspian Sea, and you have the Transportation Energy projects that are going through the Caspian.

Now, Chechnya, of course, is on the borderline of that, and it's a major fault line in the north Caucasus. Chechnya is separated by a mountainous barrier that goes from the Caspian to the Black Sea. So the north Caucasus is this mountain barrier that separates the south. Well, the problem is, that increasingly, the conflict is spilled over into the south, and going through Georgia and Azerbaijan. Azerbaijan has the Baku-Jihan Pipeline, which is going to bring the United States and its Western Allies about a million barrels of oil a day—the pipeline begins operation in September; a non-OPEC source of oil.

So anything that kind of carries over, or spills over into this conflict, does have an impact on American Allies in Georgia, Azerbaijan, as well as in Armenia, which is also very much strongly aligned with the United States, and actually has troops in Iraq. But this is very important in how we look at the region.

The second thing is that the spillover from the war began with the deployment of Chechnya fighters in Georgia. These fighters were seeking sanctuary, doing R&R during the winter months, and these fighters became a problem because there were Arab fighters that were mixed in with him. So what happened in the year 2002 was the Pankisi Valley became the major kind of hot spot between the United States and Russia, with the Russians threatening to go in. So what happened is we deployed American troops as advisors to Georgia, helped trained the Georgian Army; then we sent the Green Berets in to the Pankisi Valley and helped the Georgians clean up the area. Now the area is very much free of any type of instability or problems, and I know that firsthand because I was flying in an American Huey helicopter with Georgian pilots this summer—about a month ago—into the Pankisi Valley, and had a firsthand look at the area, and it's very much cleared up.

The second thing that I'd like to talk about is that there is a Chechen Diaspora that's caused by the conflict and this Chechen Diaspora is dispersed throughout the Middle East. Many of these people—I'm sure you've seen the famous film, Lawrence of Arabia, and the scenes from the film where they're trying to blow up the Hejaz Railway. Well, many of you will find it very interesting to note that during the Turkish Empire the people that they sent to protect the railway were Chechens, and Chechens were used in many parts of that railway to protect it, and that's how they ended up in places like Jordan, of all places.

So they do have a small Diaspora in this region. After the 19th century wars, many of the Chechens went to Turkey—a very large number are there. You may be surprised to know that the former chief of the general staff of the Turkey Army, Armed Forces is a Chechen. They have a very strong martial culture in history, and with any society that they kind of integrate into, they have this martial tradition where they do fit into regional militaries, and they do it quite well.

The other aspect that I'd like to go to—now, this also plays on the War on Terror, because of the aspects of the financing. But as you can see, by the map there's no ATM machines in Chechnya, and there's no frequent flyer flights between Grozny and Riyadh. Chechnya has very much been cut off from the outside world since 1999.

When I mentioned it earlier, I talked about the issue of regeneration—why is it important? In the case of Chechens, if we've been following them since 1999, I've basically pioneered many important uses of communication, means of communication, how they carry material things in and out, and how they keep the resistance alive is very, very much—it's kind of a fascinating glimpse of things. I'd like to ask everyone in the audience this question: "Has anybody in this audience ever sent a voice recording by the Internet? Have you ever sent a tape to a loved one, friend, relative, by the Internet? Just tell them, hi, how I'm doing?" I saw this a couple years ago.

Chechens were sending back and forth on the Internet voice recordings, and actually, there's a Chechen radio service for Radio Free Europe based in Prague, and the Czech Republic, and they were receiving voice recordings from the president of Chechen by the Internet and doing these types of things. They have been able to do, I think, key means of communication. They often use videotapes of commanders giving orders, in order to verify that the order is actually coming from that commander by videotape. They do this by a very unique system that's not high tech; it's basically what we call a courier system, where they send people by foot, and deliver tapes, they deliver certain messages, they also deliver money. They operate from areas like Azerbaijan, Georgia, even Moscow—they go back and forth. So this is how they kind of keep their struggle alive.

Now, the United States has had a concern about Chechnya because of the level of the Arab influence inside of Chechnya, and I have to talk about that briefly, because, beginning with the first war in Chechnya, they did recruit some of the Arab fighters into the region. With the beginning of the Second War in 1999, a lot of the fighters fled the region. They left a handful of key fighters—one of them was by the name of Khattab. Khattab was important because he was from the

very famous al-Ghamdi in Saudi Arabia. That may not mean anything to you, but several of the 9/11 hijackers were members of the al-Ghamdi tribe—that's important, and there is some significant relevance to what's going on in Chechnya in terms of 9/11, al-Qaeda, and the War on Terror.

But overall, there's only a handful of Arabs left in Chechnya. A recent interview by the field commander—the top Chechen military commander, a man by the name of Dokku Umarov basically said that there's not enough Arabs in Chechnya to form military units; they have to disperse the Arabs into other military units because their number is not very large.

But what these Arabs do do is they do have a source of funding and access that they can get key important equipment that they need, communications stuff, also funding and financing from the region. But a lot of the funding and financing from the Middle East that was prevalent before, beginning with the war in 1999 to 2000, has pretty much dried up—even the Russians will admit that.

Now there's several important instant things that are very important about the Chechens in terms of regeneration, and it's very important in understanding them. As I mentioned earlier, I used to be with SAIC, and right after I came back from Chechnya in 1999, I had a very interesting request came through, and that is from Quantico. A group of Marines down there were saying, "Well, gee, you know, we interviewed all these Afghan commanders who fought in Afghanistan with the Soviets, so why don't we interview some of the Chechens and learn about their urban warfare and their combat strategy during the First War?"

So we had someone approach SAIC, and then we put them in contact with a consultant in Europe, and that person went into Chechnya and did an extensive interview project, interviewing Chechen field commanders prior to the Second War. So they had an extensive process of tapes, interviews, that were all prepared for the Marine Corps, and I've often seen friends from Quantico in the past couple years, and asked them, "Well, what's the status of those tapes?" and no one knows where they are now. But they have this whole transcript of very unique, very forward thinking, talking to the Chechen field commanders about how they fought.

Why are the Chechens so successful in what they do? In August 1996, they surrounded 15,000 Russian troops in Grozny, cut them off; it led to the 1996 Khasavyurt—a lightning attack by the Chechens. The Chechens have a very strong martial tradition that grows out and they have historical experience. That experience has been going on for 400 years—it dates back to the 18th cen-

tury—but even before that, Imam Shamil led a group of what they call the North Caucasus Mountaineers against Czarist rule.

As I go on here—this key figure is very important. This is the person by the name of Imam Shamil, who fought the Russians for over 40 years. What the Chechens have, and the North Caucasus have in particular, are very strong historical experience. I'll tell you this because this historical experience has made them very adaptive to survival. You may not know that Stalin deported the entire nation overnight; in 1944, 600,000 people were put into boxcars and sent to places like Siberia and Kazakhstan. Well, growing up in a very harsh environment like that will make you very, very tough, and in that type of environment that they grew up in, up until the 1950s and 1960s, they had something of which was an oral tradition, of where their grandfathers would teach them about where every relative of their family ever fought the Russians. So they knew each valley, each little ravine; they pass on an oral tradition of historical legacy to their children. I've had the former foreign minister of Chechnya tell me the story about how when he grew up his grandfather, even growing up in Kazakhstan, would teach him about this experience of what they had.

Now what this leads to is something that we're very familiar with in the US military, is what we call "tight unit cohesion." So this leads to the Chechens because of this historical experience that they have—they know how to fight in small, very mobile groups, and this type of experience that they had in growing up in the camps, and also in Chechnya now makes them have a unique kind of tight cohesion. They also have a very egalitarian nature, to where they elect their commanders. Now Chechnya is a clan society, but it's a society that's very egalitarian. So a lot of the smaller units, when they call these units mobile units, which consist of seven men, when they're fighting in the urban environment, these guys will elect their commanders, based upon their respect for them.

Chechnya has now kind of evolved to a position where the United States, because of its position as Russia's ally in the War on Terror, has basically kind of taken a hands-off approach to Chechnya. Now, there were no Chechens found in Guantanamo, but there were rumors and reports of Chechens being in Afghanistan, but they didn't find any. But this has kind of led to this close relationship with Russia; there's been intelligence sharing with the Russians. I saw a declassified report on some of the information received from Russia, and what I learned in that report—as someone who has followed the region for years—is that we were being plugged with a lot of disinformation by the Russians. Basically, as the Russians have a certain position to advocate—making the Chechens out as a part of the al-Qaeda in the War on Terror—but we do have problems with that.

Often, a lot of our intelligence analysts don't have the historical depth, or experience, in dealing with the area to kind of separate this stuff. But, as someone who has followed this for the past six years, I can see many errors in the analysis and things that were given to us by the Russians.

Now, why I say that is that it also began—like now, you may be surprised to know that there's now, within the NSA, and in Monterey, there's now a Chechen there in Monterey, teaching Americans the Chechen language. There's been a lot of interest in the United States in the Chechens as a result of 9/11. But basically, the United States has kept its hands off the conflict, even though they advocate and promote a peaceful end to the war.

So, as this conflict has kind of drawn on, the United States has kind of separated itself from it. But it's been increasingly spilling over into other parts of the North Caucasus. It has no meaning for any of you in this room, but it does have an impact with the stability of Russia, and the stability of Russia is very important to the United States. So, if this area starts to filter away at the fringes of a decaying empire, than it does have impact on us, because, as we know, energy supplies are very important to us, and the Baku-Jihan Pipeline is going to be a very important supply of a non-OPEC source of oil to the United States.

In terms of the Global War on Terror, Chechnya has a basic military strategy by the Separatist Movement that was directed by Aslan Maskhadov, I call him the Chechen version of General Giap—very, very well educated; you know, he's an artillery officer, graduate of Arshile. He was someone that constantly advocated a guerilla war strategy against the Russians.

There was a second person by the name of Basayev within the Separatist Movement, but basically, Maskhadov designed a whole interior supply system for the resistance Separatist Movement that kept the fighters supplied. He kept them training—they had bases set up in the mountains—and what happened in the first couple years of the war, the Chechens were busy creating military bases, secret military camps where they could train and disperse people to fight.

Of course, Maskhadov was killed; he was also the only democratically elected president of Chechnya in the elections in 1997 that were deemed by the West to be free and fair. Why is Chechnya important? The Russian military casualties in Chechnya have been greater than Afghanistan. As the comments below, more than 25,000 Russian military men have been killed in Chechnya in action or died of wounds since 1999.

So is this conflict lethal? Yes, it is. Is it a bleeding wound on Russia? Yes, it is, this conflict is very much a bleeding wound on Russia.

It's also had a very large humanitarian tragedy—10,000 or 9,000 displaced. Why is this important from a military security perspective? Well, when you have people who are displaced by conflict, they go to other republics. Well, when you have refugees serving in areas, those refugees can also serve as a base of support—fund-raising, also R&R areas for people, and it's also a recruitment ground for other fighters.

So what the Russians have encountered in North Caucasus is that with all these refugees who have been dispersed by the war in Chechnya, they've gone to other parts of the North Caucasus. That's why we're seeing a spillover of the war in other parts of North Caucasus, because there's a Diaspora; this movement is everywhere.

But there's also the issue of 80 percent unemployment in Chechnya. In neighboring Ingushetia, you have 90 percent unemployment. So if there's nowhere else to go, and there's nowhere else to work, it's not a surprise why people are picking up arms to fight back. They also had a problem with many of the mosques in Chechnya have been destroyed by the conflict—300 to 350 mosques in Chechnya have been destroyed or heavily damaged.

There's still efforts now to end the war in Chechnya. The Levada poll in June 2005, 23 percent of Russians believe that peaceful lives are being restored in Chechnya, while 68 percent believe that Russia is still at war with Chechnya. Three-quarters of those polled in Russia are inclined to agree with the separation of Chechnya from the Russian Federation, so it's probably just an element of time before Russia just gives up on Chechnya because it's become such a bleeding wound, and not only that, but the conflict has spread to so many other areas.

General Aushev, the former president of Ingushetia was one of the most highly decorated Soviet veterans of the war in Afghanistan. He's an ethnic Ingush, and he's been an outspoken opponent of the war in Chechnya, and many people believe that he is the best hope for future peace in Chechnya; that unfortunately President Putin is not inclined to negotiate with the Chechens or the Separatists, but there's people like General Aushev, who managed to get out 25 children last fall, last September, from Beslan—a key figure in this movement.

Key people to watch in the post-Maskhadov resistance. Abdul-Khalim Sadullaev became the successor to President Maskhadov. You had the veteran Chechen

commander, Shamil Basayev—he's been the mastermind of suicide attacks, but he's also a mastermind of Chechen urban warfare. Shamil Basayev was the garrison commander of Grozny, when the Russians relentlessly went in and tried to attack the capital and where they took all those heavy losses. So he's not only a master of suicide attacks and terrorism, but he's also a master in urban warfare as well, so just a very key figure in the movement.

The next guy is Dokku Umarov—he's now the vice president of Chechnya, a key field commander. Why is he important? Well, June 2004, the Chechens—you probably didn't hear this; it wasn't really covered, it was maybe for one day in the news—but they seized control of the capital of the neighboring Republic of Nazran, and I still think that that attack and what they did in that one day of taking over a capital of the neighboring republic was quite significant. Why? Because they held the capital for 24 hours. The first places they went in and attacked were the communications—FSB security services, their command and control network—cut them off from having satellite contact with Moscow. Chechens and Ingush were wearing Russian military uniforms, Russian military officers coming into work were pulled off to the side of the road and they were shot and executed on the spot. Then they would take the car and move it off the side of the road—you know, just like out of one of these films, they keep coming in, they shoot them, and they take them off. So they did this for 24 hours and partially because they didn't have any communications and the Russians didn't know what was going on. They seized several warehouses of weapons; they sent the weapons back to Chechnya. They came, they went, and they did what they wanted. Why am I telling you this now? It's important because perhaps this is a dress rehearsal for something larger. If I was to guess on where we might be sitting in a month or two months, and you may be reminiscing about a my presentation on Chechnya, I think you may be seeing something in the news where the Chechens have seized another capital of another neighboring republic and I think Dagestan, Makhachkala is going to be the target. Why is all this important? The Chechens, lead by Basaev, still believes that the knockout punch is what is going to take the Russians out of the war. Whether this is an ill-fated concept is not clear, but he (Basaev) believes that he can take out two airliners going down—simultaneously being hijacked, a thousand children taken hostage last fall in September in Beslan, they had a Moscow suicide attack in a metro. All of these coincided within a several days. The first thing handed outside the door by the hostage takers in Beslan was political conditions for withdrawal of Russian troops from Chechnya. The political motive behind the conflict is still very much there. Basaev believes, and he may have changed his view somewhat, but he believes that the knockout blow is what's going to do Putin in. So you have Chechens against the Russians, head-to-head and this thing is basically a meat grinder.

Why is history important? Because the Chechens new separatist leader, Abdul-Kalim Sadulaev, models himself after Sheikh Mansur who fought the Russians, and who was another predecessor to Shamyl. History is very important in this conflict. They keep modeling after their forefathers, and their grandfathers, and their resistance against the Russians.

Well, thank you very much. I very much appreciated getting a chance to talk to you, and hopefully, you're a little bit more interested in Chechnya. Thank you.

The Evolving Nature of the Chechen Resistance: Descent into Terrorism

Ray Finch

This paper will briefly touch upon the evolving nature of the Chechen resistance (though devolution may be the more accurate term). For a number of reasons, the Chechen resistance has transformed from a traditional guerilla force into one that increasingly relies upon terrorist acts against civilian targets. However, as in any symbiotic relationship, the primary cause of this change has been the equally downward evolution of Russian military strategy/tactics in Chechnya.

Background

Russia has been ,on and off, at war in Chechnya for the past 250 years over the question of Chechen independence. The latest conflict stems from 1994, when Russian forces attacked Chechnya to crush an armed insurrection. Russian forces pulled out in 1996 when a ceasefire was signed and then re-entered Chechnya in the fall of 1999, when Chechen fighters made armed incursions into the neighboring republic of Dagestan and were claimed to be responsible for a series of explosions in Russian cities, including Moscow. Initially, Russian forces were merely going to restore order in Dagestan, but then the Kremlin leadership decided to move into Chechnya and crush the resistance once and for all.

Evolution of Chechen Tactics

1. Force on force. While the latest conflict could never be characterized as force on force, during the 94-96 period of hostilities there were a number of battles where a significant number of Chechen fighters engaged Russian forces in a force on force type battle. The Russians enjoyed tremendous advantages in mobility and firepower, but these were offset by poor training and leadership. Russian tactics might best be described as indiscriminate, where suspected targets were struck with massive firepower with little concern for collateral damage. The Chechens took advantage of their knowledge of the terrain (especially in urban areas) and general support among the local population.

2. Insurgency on force. This has been the traditional Chechen method of engaging Russian forces. Taking advantage of their home turf, Chechen fighters find vulnerabilities and attack Russian fortified positions and convoy operations. However, as the number of insurgents has decreased and as Russian forces have further fortified positions, the Chechens have had to engage other targets, including civilian locations.

There has been a similar widening of combat-type operations on the Russian side. If at first, Russian forces would target those who appeared to be insurgents, they soon began to harass, imprison or attack any who remotely resembled the insurgent profile. This indiscriminate Russian retaliatory violence has been aggravated by endemic corruption within and the lack of effective legal oversight of the Russian security forces. An overwhelming majority of the Chechens polled in the capital Grozny, earlier this year said that they had a "strongly negative view" toward Russian security forces.

In the past couple of years, the Russians have been able to exploit the rifts between the traditional Chechen clans. While the Chechen insurgency has probably never been unified under a single command, during the 1994-96 stage of the conflict, driving Russian forces out of Chechnya unified nearly all the insurgent groups. This is no longer the case. Chechen forces are now splintered in a number of groups with different loyalties and objectives, and Moscow has taken advantage of this to weaken the insurgency.

3. Insurgency on civilians. As the Russians have begun the process of Chechenization (turning over security operations to Chechen forces who have expressed loyalty to the Kremlin), Chechen insurgents have increasingly targeted civilian locations, both inside and outside the borders of Chechnya. Something similar is observed in Russian tactics, where villages and towns are subject to indiscriminate sweep operations, where any likely insurgents are arrested and sent to filtering camps, often never to be seen again.

Tactics of terrorism

The Chechen insurgency attacks on civilian targets have taken one of three forms:

a. Conventional insurgent attacks against civilians/security personnel.

b. Suicide bombing.

c. Hostage-taking.

a. Paradoxically, as the overall size of the Chechen resistance has decreased (especially since 1999), the likelihood of more devastating attacks against civilian targets has become greater. Hardly a week goes by without a report of an insurgent attack against both military and civilian targets in Chechnya.

b. While somewhat difficult to categorize, during the 1994-96 Chechen war, there were only a couple of recorded incidents of suicide attacks against Russian military and civilian targets. In the past five years, however, there have been

a number of such attacks. For instance, just prior to the mass hostage-taking incident in Beslan, two Russian airliners were brought down using female suicide bombers. Most analysts believe that this increase has less to do with radical fundamentalist teachings than with the sense of utter despair and hopelessness among the Chechen population.

c. The hostage taking of the hospital in the town of Budennovsk (Stavropol) in June 1995 may have established a dangerous precedent for the Chechen insurgents. In this incident, the Russian authorities were willing to negotiate with the Chechen hostage-takers to free the lives of more than 1,000 hostages. As part of the agreement, the Russian authorities purportedly agreed to begin a peace negotiation with the Chechens, pull out Russian forces and also give safe passage back to Chechnya for the hostage-takers. From the Chechen perspective, this hostage operation was considered a success. A similar attempt was made in January, 1996, but with fewer Russian concessions and bloodier results. Some claim that these mass hostage-taking incidents were a last-gasp attempt by the Chechens to force the Russian side into some sort of political negotiation with the Chechen separatists. Again, though, from the Chechen perspective they appeared to help bring about the desired effect.

When hostilities resumed in the Fall of 1999, then Prime Minister Putin promised to isolate the conflict and eliminate the Chechen terrorist threat. While the Kremlin has been more effective in restricting media access in and about Chechnya (especially since 9-11 and convincing the west that the conflict in Chechnya is part of the GWOT), they have been less successful in keeping the conflict contained.

In 2002, another hostage raid was carried out, this time in the Russian capital. Some 50 Chechens infiltrated, surrounded and took hostage a theater with nearly 1,000 hostages in downtown Moscow. By striking at the very heart of Russia, they revealed the weakness and corruption of the Putin government, which had earlier staked its claim on eliminating the Chechen threat. However, the Chechens may have overplayed their hand. As opposed to 1995, when the Russian media was still relatively free and could objectively report on the conflict, by 2002 the Kremlin had re-established control over the major air-waves. Moreover, President Putin has learned the opposite lesson from the Budennovsk hospital raid, and understood that giving in to the terrorists' demands would only encourage further acts of violence. The hostage-takers were never able to publicly set forth their demands, and the theater-hostage attack was labeled by the Kremlin as sheer terrorism for the sake of terror. Though the results of this incident were tragic, they could have been much worse (some 150 civilian and all the hostage-

takers dead), and the Putin government was able to claim victory. More importantly, the policy of non-negotiation with terrorists appeared to be vindicated.

In September 2004, 30-40 mostly Chechen insurgents/terrorists took a grade school hostage in the town of Beslan in North Ossetia. Again, from the Chechens' perspective, seizing innocent children would have to be the ultimate trump card to force the Kremlin leadership into some form of peace negotiations. This proved to be a miscalculation. While President Putin publicly stated that everything must be done to save the hostages, he refused to allow any high-level official enter into negotiation with the hostage-takers—until it was too late.

Conclusions

Though the means were criminal, as the Chechen insurgents have been unable to force the Kremlin to enter into some form of negotiations by seizing hostages, they will likely resort to direct (and possibly, catastrophic) attacks against key Russian targets. Chechen insurgents might also conclude that since their attacks against Russian targets have provided little leverage, they may decide to conduct an operation outside of Russia.

From the Kremlin's point of view, the Chechen conflict has transmogrified from an attempt to crush an armed rebellion to a larger battle against global terrorism. It might be argued that this transformation is a direct result of Kremlin policies. As the situation within Chechnya has become ever more desperate, the fundamentalist and radical teachings of some Islamic clerics become more attractive. In exchange for their devotion, some of these groups have provided significant material support to the Chechen fighters.

It is important to emphasize that the US analyst not apply common western paradigms when referring to the Russian military. Simply put, Russian forces fighting in Chechnya have been plagued with corruption and lack of effective leadership. These same problems have infected the Russian plan to "Chechenize" the conflict. While the Chechen proxies may be loyal to the Kremlin (and this is far from certain), they are riddled with the same corruption and poor leadership. Instead of localizing the conflict, this policy has had the opposite effect. As Chechen insurgents seek refuge in neighboring republics, they (and anyone who might offer the Chechens assistance) are pursued with indiscriminate force, exacerbating the tension in the region. This vicious circle of violence continues to widen in the North Caucasus, and possibly, far beyond.

Sustaining the Struggle: Interplay of Ethno-Nationalism and Religion

Njdeh Asisian - US Army Foreign Military Studies Office

My title is "Sustaining the Struggle: Interplay of Ethno-Nationalism and Religious Nationalism." I would like to express this idea that I came from a mixed background—my background is Armenian; I was borne and raised Armenian—and I'm mixed with lots of different cultures, languages, ethnic groups, and so forth and so on.

Well, I can tell you something about the Caucasus—the Caucasus is a very dangerous place, everywhere is a landmine; I mean not a real landmine, but ethnic conflicts, religious conflicts, and many different things happen up there. Then, nationalism never dies in Caucasus—it stays up there for centuries. The other thing is that besides nationalism, I can tell you that they hate their enemies very passionately, but at the same time, if you are their friends, they love you very much; I mean, they will die for you. So that's the situation.

Now, I can tell you this, that religious fundamentalism has increased in Caucasus, partly in reaction to Russia's refusal to allow northern Caucasus people to separate from the Russian Federation—especially in the northern Caucasus; we have different small nations up there. For example, English, Chechens, North Ossetians, and the other small republics.

Except North Ossetia, the rest of the other republics are Muslims, and the North Ossetians are Christians. So in that area, since 1991, there are some Dhabi's—Sunni Arabian elements—up there, but at the same time, Sufi and Shi'a and Sunni groups are up there and have been for a long, long time.

So the result there, besides deep hatred toward Russia, is religious nationalism plays a role in order to fight against Russian troops since 1991. However, the influx of offsite money, especially from the Gulf countries and Saudi Arabia, makes matters worse, because the money that came from Saudi Arabia and the Gulf States helped the insurgents to go forever—I mean, for a long time. Then this flow of money is at work up there since 1991, and the Russians were not able to stop that.

It is important to remember that strife often causes secular people to become more religious. I mean, before 1991, most of the northern Caucasus and Trans-Caucasus nations were very secular, and they didn't really have very big religious

feelings. But because of the problems that they had after 1991, they become much more nationalistic, and at the same time, religious—turning from the secular nationalism, or ethnic nationalism, to religious nationalism; it means, they put forward their religion more than anything else.

In addition is the social changes that religion can bring. Religions also influence the community's opinion about regional, national, and international players. When they put religion in front, as an ideology, that means that they create kind of a sense of brotherhood with other same religious countries. For example, in the northern Caucasus—let's say Chechen right now—has very good relations with Saudi Arabia or Gulf States or other Muslim states, rather than having good relations with other non-Muslim countries. So that becomes part of the problem—they divide themselves by religious lines.

A good example of religious nationalism replacing secular nationalism is seen in the Arab world, where the ideologies of current Arabism, nationalism and Baathism have failed to fulfill the demand of the Arab masses for social problems. That's exactly the same thing happening now in Caucasus, like what's happening in Arab countries—secular nationalism is replaced with religious nationalism—exactly the same process happened right now in Caucasus, especially in the northern Caucasus.

Then after Caucasus, one sees that something similar happened when the Soviet Empire collapsed and left no acceptable ideology in Caucasus for the large Muslim population. It means that after 1991, there were no valid ideologies for the northern Caucasus population, after the fall of the Soviet Union and after the collapse of the communism. So they do not have any other choice to find something else to redefine themselves. Then Islam becomes part of that redefinition of their ideas and beliefs and then where they want to go with.

The Caucasus' Chechen people suffered a brutal history of Russian occupation in the 19th and 20th century—to date, Chechnya is one of the major conflict zones in the Caucasus. Again, when we go to Chechnya, we see that the problem with Chechen-Russian relations is going back during the 19th and 20th century. So this makes Caucasus more—kind of unstable, in many different ways.

A number of factors continue to be a source of strife and unrest in Chechnya that really makes it difficult to see any real solution for Chechnya: unemployment; massive illiteracy among young Chechens who have not attended schools over the past 10 or 12 years; and criminal elements in Chechen society that exploit people for their own economic benefit.

Here, I would like to highlight illiteracy among young Chechens. After 1991, after the war, they were not able to go back to school and they became a very good target for the Chechen insurgency. The insurgency took them under their wing, and they become a new guerilla to fight against the Russian Army.

Today, we have the same problem in Eyak. We see, all those elements that I've mentioned in Chechen, in Eyak, you can see the same elements. You can add in Baath Party members and the security people that they are making Eyak insurgents much more dangerous.

In conclusion, it is important to remember that any conflict in the Caucasus have the potential to create further religious extremism, and draw Caucasus Christians and Muslims into more warfare that could have a regional and global impact. It means that the Caucasus is divided by Christians and Muslims. Muslim occupation in the northern Caucasus, except Northern Ossetia, on one side; and then on the other side is Georgia, Armenia, and Southern Ossetia. So there is a possibility of turning those ethnic nationalism into a religious nationalism, and then becoming a religious war in the Caucasus.

Further, we need to think more about how do these extremists find their way into international relations and influence national and religious players. This is the thing I would like you to think about—how in the late 20th century and the beginning of the 21st century that religious nationalism becomes more important than anything else, how they were able to enter into the international relations and regional politics.

The Impact of a Decade of War on the Russian Military: A Legacy of Broken Trust

Major Matt Dimmick–Eurasian Foreign Area Officer

"Society is afraid of our Army"
— Russian Defense Minister Sergei Ivanov, April 2005

Introduction

The impact on the Russian Army from a decade of war is resoundingly negative. Continual campaigning is responsible for significant loss of life, expenditure of scarce resources, and the postponement of long-overdue military reforms. However, the most far-reaching and corrosive impact of the fighting is the broken trust between the Russian people and their army. While the Chechen conflict may not have been the sole instigator of this fractured trust, it certainly magnified preexisting problems and accelerated a precipitous plunge in confidence. The purpose of this paper is to explore the state of the poor relationship between the military and society in an attempt to demonstrate how it is crippling the Russian Army's transformation.

Eroding Public Confidence

Sergei Ivanov was absolutely correct in his pronouncement on how Russian society currently sees their military. Within the past ten years, the military has scared away public support because of its rampant unprofessionalism, corruption, lack of discipline, and crime within the ranks. Before the first Chechen War, the Russian people possessed an almost complete level of respect and confidence in their military, a holdover from their perceived Cold War prowess. However, opinion turned immediately as the Russian public witnessed their Army's ineffectiveness firsthand. It failed to secure modest objectives in 1994 at a cost of thousands of poorly trained and led conscripts. Persistent casualties, deadly catastrophes, and few positive results further eroded the public's confidence over the ensuing ten years.

Unsurprisingly, public opinion of the Russian military plunged. A study by Theodore Gerber and Sarah Mendelson reveals a significant drop in approval from 1993 to 2003.[1] They identify that the Russian Army used to enjoy a place as one of the most trusted organizations in society. Today that approval rating rests at a point where barely half the Russians surveyed have complete or even partial confidence in the military.

Recruiting Woes

Recruitment for the Army is another telling indicator of Chechnya's impact on the Russian armed forces. Most draft-aged men avoid military service at any cost and the public wholeheartedly supports them in their efforts. As a result, the Russian conscription system is nothing short of a disaster.[2] A raft of loopholes allows the smarter and better connected members of society to avoid service through any number of legal deferments. Others can easily purchase their way out of service by bribing draft officials, lining the pockets of university acceptance boards, or paying doctors for medical exemptions. The structure of such a system ensures that almost anyone, with even a modest effort, can easily slip through the grip of compulsory military service.

The bi-annual harvest of bribes and deferments results in only nine percent of the men eligible for the draft actually getting called up for duty.[3] This pool of recruits represents those with the fewest employment prospects, characterized by large numbers of men who are physically or mentally inadequate for the task of military service. In 2002, only eleven percent of the men in this smaller pool of conscripts were even suitable for military service.[4] This situation forces draft boards to send forward recruits who are well below the minimum standard for soldiering, filling the ranks with large numbers of men with criminal records, histories of drug abuse, and a lack of secondary education.[5]

Poor Quality of Life, Hazing, Crime, and Corruption

One only has to look at the quality of life for recruits to find reasons for massive draft dodging. Aside from the very real danger of service in the Caucasus, conditions for servicemen are generally miserable throughout the entire Army. Pay and benefits are pitifully low. Company grade officers are exiting the service in large numbers, leaving the military with a shortage of quality junior officers. Without a professional non-commissioned officer corps and fewer officers to supervise the barracks, the practice of *dedovschina* (the brutal practice of hazing between second-year and first year recruits) became widespread, inflicting untold damage to morale.[6] At present, this ill-disciplined and irresponsible collection of troops not only cripples the Army's image, it also acts as a breeding ground for crime and violence. In fact, morale and discipline is so poor that some estimate as many as 2,000 troops a year die from murder, brutal hazing, and suicide.[7]

To improve the quality of its troops, the Army is experimenting with an all-contract force in Chechnya, composed of second-term soldiers and volunteers from a pool of reserves. Cash bonuses attract these men into service, but even a five-fold increase in base pay succeeds in luring only the most desperate members of society into service. Consequently, the results so far are mixed.[8] The

quality of contracted recruits remains poor, while the amount of violence in the barracks and lack of discipline are equivalent to non-contract units.

Fighting in Chechnya also exposed widespread corruption within the military, widening another fissure between the Army and society. There are multiple instances of pay stolen from troops, rampant bribery, drug dealing, and weapons sold directly to the enemy.[9] Crime is so widespread that in the first half of 2004 alone, the military prosecutor convicted 7,300 servicemen, including 800 officers.[10] Disturbingly, most of the convicted officers were colonels and generals.

Conclusion

Taken as a whole, the relationship between the Russian Army and society is at a critically low level that makes effective transformation impossible. Transforming from a heavy conventional force to one capable of fighting low-intensity conflicts demands professional leaders and highly trained soldiers. Due in part to the ongoing war in Chechnya and the breakdown in public trust, the Army is not capable of building such a force. Only a concerted effort to fix the multiple failings of the Russian military will attract the right quality of people into the Army's ranks to fuel their transformation.

Unfortunately, the Russian Army is making little headway toward improving their image. Pay and benefits are wholly inadequate to the demands of a professional force. Quality of life for soldiers is dangerously low, and no concerted effort is underway to protect recruits from hazing and violence within the barracks. Throw in rampant corruption along with a disregard for human life, and the result is an unreformed Army serving a society that is unwilling to give up anyone other than their most ill-suited sons to serve in its ranks. Until Russia can reestablish the trust between the Army and society, broken by its involvement in Chechnya, it will continue to reap the tragic consequences.

Notes

1 Theodore P. Gerber and Sarah E. Mendelson, "Strong Public Support for Military Reform in Russia", *PONARS Policy Memo #288*, May 2003.

2 Roger N. McDermott, "Russian Military Manning System Reveals Flawed Reforms", CDI Russia Weekly, 18 June 2004, http://www.cdi.org/russia/311-13.cfm.

3 "How the Mighty Have Fallen", *Economist*, 5 June 2005.

4 "Just 11 Percent of Draftees Fit for Service", *RFE/RL Daily Report*, July 11, 2002.

5 Mark McDonald, "Russian Draft Collects 'Bums, Real Scum' as Most Defer Dangerous Military Posts", *Knight Ridder Newspapers*, 30 March 2005, http://www.realcities.com/mld/krwashington/11269302.htm.

6 For an excellent report on the practice of *dedovschina* in the Russian Army, see "The Wrongs of Passage" published by *Human Rights Watch*, http://hrw.org/reports/2004/russia1004/.

7 The Russian Defense Ministry reported that 1,100 people died in the Army in 2004 due to all causes. However, Russian activist groups, including the Russian Mothers organization, complain that this number is severely underreported.

8 Roger McDermott, "Russia's Use of Contract Soldiers Shows Mixed Results in Chechnya", *Eurasia Daily Monitor*, Volume 1, Issue 26, June 8, 2004.

9 Pavel Felgenhauer, "The Russian Army in Chechnya", 18 April 2003, http://www.crimesofwar.org/chechnya-mag/chech-felgenhauer.html.

10 Oksana Yablokova, "Crime Invades Military Ranks", *Moscow Times*, 28 July 2004, http://www.themoscowtimes.com/stories/2004/07/28/001.html.

Day 3, Session 1 Question and Answers

Moderated by
Timothy L. Thomas–Foreign Military Studies Office

Mr. Thomas
I let Glen go on like he did because, first of all, he came from D.C., but I think you all see what type of background and how involved he's been in the area over the past few years. But it doesn't end there. Like I've mentioned earlier, if you go to the Jamestown website, you'll find an awful lot on China, and there's an awful lot on the insurgency in Iraq there as well—a lot of translations of key documents about how the insurgents are using IO and other items. So I would really encourage you to go to Glen's website, if you get a chance.

I would like to finish with this. We were supposed to kind of wrap up here, but I don't want to wrap up. You know, we've got five minutes left, so let's just go straight to questions, if people have them. Yes, sir?

Audience Member
This is for anyone who can address this: What's the status of the Chechen population in Russia in general and in Moscow in particular?

Mr. Howard
400,000 Chechens live in Russia—not just in Chechnya, but Moscow, parts of Siberia—overall, there's about 400,000 maybe 500,000.

Audience Member
And has it changed since about 2000? Has that been going up and down?

Mr. Howard
Well, that's 400,000. Then you have 400,000 people displaced by the war that are spread out all over the North Caucasus. Even in Europe, the highest number of asylum seekers in Europe now are Chechens; 26,000 Chechens have fled to Europe—the majority of them are women. But in Russia, they're still very much integrated into Russian society, because there's a pro-Moscow group of Chechens.

Audience Member
Yes, did the Russians make any attempt to kind of hack into the Chechen websites—specifically those collecting money?

Mr. Thomas
Yeah, they've done a lot of that. First of all, they put a website that was very close to the Kafkas website—dot-org, dot-com—so that people would go to the

wrong websites, and they've been hacking into the financial side for quite a while now.

Audience Member
How many Chechens are in the United States?

Mr. Howard
Maybe 100. A hundred at the most, and I'd say 85-90 percent of them are all women. No men are hardly allowed in.

Audience Member
The unemployment [inaudible]. What kind of economic opportunities are available [inaudible] any resources [inaudible]?

Mr. Howard
The second largest oil refinery in the Middle East is in Grozny. Abadan is number one; the second largest is Grozny—a million barrels per day. Is it operational? No. Is it partially operational? Yeah, up to 80 percent. Grozny sits on a sea of oil—there's a lot of oil in there. People refine it—you know, it's like out of the Clampetts; they shoot a shotgun in the ground and oil starts coming up. They can refine the oil—they have these really cheap refineries—and everyone engages in this oil trade. Chechnya is kind of like a transportation hub for the North Caucasus. There's no major oil refinery other than what's in Grozny, so a lot of the oil that's sold in Chechnya goes to other parts of the North Caucasus, so it's a very important kind of a transportation hub.

Mr. Thomas
Really, it's right at 9:30, and I promised I'd stop us. But these folks will be around, so please, on the break, come up and ask them your questions. What I'd like to do, though, real quick is thank Njdeh for his insights on religion in the area and what type of developing hole was dug early on and continues to be dug; Glen then talked about this regeneration of this group of Kalashnikov kids; Matt for his insights on what clearly is a big problem for the Russian Army, and because of those problems, I think you see some of it spill over into the way the Russians act against the Chechens; Ray for his insights on, really, what the biggest problem might be—do they have weapons of mass destruction, and clearly, with their connections in countries around the world, no one ever throws that thought out, I know, and hostage taking really has been their way to get the effect on the international scene; and then finally, of course, Glen for his insights. I mean, once you get to that area like he has been, the whole world opens up to you, and you can feel his enthusiasm when he talks. So please, a big round of applause for all of them. [Applause]

"The Organizational Evolution of Cadet Command, 1990-2003"

Dr. Arthur T. Coumbe

Introduction

For the Reserve Officer Training Corps (ROTC), the origins of the post-Cold War drawdown can be traced back to a series of briefings held at the Pentagon in November 1989, which considered, among other things, the officer accessions needs of the US Army in the new, less threatening international environment. At these briefings, Major General Robert E. Wagner, the Cadet Command Commander, and members of his staff learned of an initiative in progress, Operation Quicksilver, that was designed to slash the Army's end strength by 23 percent—from approximately 750,000 to 580,000. The Quicksilver plan projected a 36 percent cut in the overall ROTC production mission in the upcoming fiscal year and a 33 percent cut in ROTC active duty accessions over the next two fiscal years. Wagner believed such drastic reductions portended disaster for Cadet Command because of the disruptive effects they would have on the officer accessions process and because of the morale problems they would create among cadets.[1]

Operation Horizon

Cadet Command's chief sought to pre-empt Quicksilver by putting forward a downsizing scheme of his own. Operation Horizon was the result. The Horizon plan reflected Wagner's determination to effect a more gradual reduction in ROTC's annual officer output than envisaged by the authors of the Quicksilver plan and, at the same time, to hold on to as much of the existing ROTC institutional structure as possible under the circumstances. Wagner and his staff did not believe that Cadet Command's institutional base could sustain a cut commensurate with the reductions projected by Operation Quicksilver without endangering the program's officer production capability or eliminating some of the functions that ROTC traditionally had been expected to perform.[2]

From March to August 1990, Cadet Command Headquarters, working with the TRADOC, Army, and Defense Department staffs, refined the Horizon Plan. In its August 1990 form, Horizon called for the inactivation of 62 Senior ROTC units, including both host units and extension centers, the closure of two brigade (intermediate) headquarters, and the selective drawdown of cadre at certain schools. With this plan, the command's strength was to shrink from 4,499 to 3,761 and its officer production capability from 7,800 to 6,200. All this was to be accomplished by October 1991.[3]

In addition to effecting a rapid institutional drawdown of the ROTC, Horizon had other objectives. One of these was to preserve an institutional "infrastructure" large enough to maintain "the Army's presence on America's campuses." The post-Cold War drawdown, many feared, would result in an increasing isolation of the Army from the rest of society. The ROTC was one of the relatively few programs through which the Army could get its views known and its message across to the American people. It was important, therefore, that the Army retain this avenue of public outreach at a strength robust enough to make its presence felt in the academic community. There was an obvious tension between Horizon's primary goal of closing inefficient units and the objective of "Preserving the Army's presence on America's campuses," which entailed the retention of a larger institutional base than dictated by officer requirements.[4]

Cadet Command met the Horizon deadline. By October 1991, Cadet Command had closed two brigade headquarters and 62 Senior ROTC units, which represented about 15 percent of extant programs. Major General Wallace C. Arnold, the Cadet Command Commander who superintended the execution of Horizon, regarded it as a huge success. He attributed this success to superb coordination by his headquarters staff. Besides keeping TRADOC headquarters, the Department of the Army, and the Defense Department involved in the planning process, his staff worked closely with congressmen, general officers, senior National Guard officials, distinguished alumni from affected institutions, and other interested parties to assuage their fears, answer their questions, and convince them of the necessity for the in-activations. The end result was that no closure decisions had to be reversed—a noteworthy achievement given the number of schools involved and the intense emotions that unit disestablishments often incite.[5]

In the past, school closures had been very difficult to execute. In fact, since the advent of the all-volunteer force in 1973, the vast majority of institutions that vigorously resisted the planned closure of their ROTC unit had been successful. The need for closures had to be compelling and obvious before disestablishments on the scale of Horizon could be carried out.

The General Accounting Office (GAO) was less enthusiastic than Cadet Command about Horizon's results. In a report published in May 1991, that agency charged that the Horizon in-activations were "insufficient to match the Army's lower accession needs" and that far too many "consistently unproductive units" still remained in operation. The GAO conceded that long production lead times coupled with budgetary and end strength uncertainties greatly complicated the task of managing institutional retrenchment. It insisted, however, that such dif-

ficulties did not excuse the failure of the Army to develop a long-range plan to guide the downsizing process.[6]

The GAO report was highly critical of DOD Directive 1215.8, the document that governed the operation of the ROTC program. That directive, it asserted, neither defined "adequate production" nor provided sufficiently precise criteria to be of any real value in making closure determinations. The Defense Department directed that the services consider the cost of unit maintenance and the number, quality, and kinds of officers produced but it did not tell the services how to measure these factors. The report also maintained that the Defense Department's system for monitoring closure decisions was inadequate. In fact, the department had no mechanism for ensuring that the services were complying with congressional intent, its own directive, or service regulations. This lack of oversight combined with the ambiguity of the closure criteria permitted the services to give widely varying interpretations to the specific provisions of the department's directive—interpretations, the GAO noted, that were not always in accord with the expressed desires of Congress. The GAO singled out extension centers for special criticism. Neither the Congress nor the Defense Department, it was asserted, had sanctioned these units. They were allegedly created for the purpose of protecting inefficient units from inactivation; they epitomized the kind of uneconomical measures that the services were prone to take to protect their turf.[7]

The Defense Department and the Army responded to the GAO report by pointing out that closing uneconomical units was a very difficult and complex task. Many closures were resisted by powerful external forces—often by members of Congress. In fact, the Army was frequently forced to keep units that it neither wanted nor needed. The Army also defended its extension centers. While these units usually did not meet the criterion of 17 contracted MS III cadets, the Army maintained, their staffing levels and costs were significantly below those of host units and their cost per commission was much lower. Moreover, the expectation that the ROTC would promote the elusive quality "representativeness" in the officer corps limited Cadet Command's ability to eliminate unproductive units. To achieve geographic balance in the officer corps, Congress required the Army to maintain at least one ROTC unit in every state, regardless of how inefficient a producer of officers that unit might be. Concerns about an appropriate mix of academic disciplines among officer aspirants, ethnic and racial diversity, and the quality of institution (large vs. small, prestigious vs. non-prestigious, state vs. private, etc.) in the ROTC institutional base further constrained the Army's freedom of action.[8]

Phoenix/Alternative Strategies

In the winter of 1990-1991, Cadet Command assembled the "Phoenix" work group to plan the next round of unit inactivations. From Cadet Command's perspective, these unit inactivations were necessary to bring the ROTC's institutional strength on line with the personnel and resource realities of the post-Cold War world. The problem facing Cadet Command was that it had lost personnel at a greater rate that it had shed units and management structure. Pentagon planners had made cuts in personnel to satisfy the demands of the post-Cold War demobilization, usually without considering the effects that they would have on the ROTC program. A cadre shortage at many units was the result.

By June 1991, the Phoenix work group had identified 23 institutional candidates for elimination. Cadet Command presented this list to officials at the Department of the Army in July 1991. Army officials, however, flatly rejected the closure recommendations, citing political sensitivity as the reason. Following up Horizon with more cuts in the near term simply would not be palatable to certain members of Congress and segments of the academic community.[9]

In the spring of 1992, Cadet Command, facing more mission reductions and resource decrements, once again came forward with a plan to eliminate inefficient units. This time the effort was part of an operation labeled Alternative Strategies. In a memorandum dated April 30, 1992, Major General Arnold recommended that 56 units be eliminated over a two year period—25 in FY 1993 and 31 in FY 1994. Originally, Alternative Strategies had targeted 94 schools for closure, but the Commanding General, fearful of the political fallout that such a huge and sudden reduction would occasion, cut the number to 56.[10]

The TRADOC Commander, General Frederick M. Franks, Jr., and the Secretary of the Army, Mr. Michael Stone, accepted Major General Arnold's closure plan. Notification letters were drawn up and officers detailed to deliver them to the affected college presidents. On July 1, 1992, with officers standing by to deliver the notices, the Secretary of Defense, Mr. Richard Cheney, ordered an indefinite hold on the closure actions. He gave no explanation but the fact that the proposed in-activations would be unpopular in an election year escaped the attention of few.[11]

The Army's inability to eliminate inefficient units combined with declining propensity for military service among college-age youth to produce scores of what some observers regarded as inordinately small ROTC detachments. In fact, it was in the early nineties that the average size of Army ROTC battalions sank below 100 for the first time in the program's history. Not only did the existence of scores of small units represent an inefficient use of personnel and resources, some Cadet Command leaders believed, it degraded pre-commissioning train-

ing and leader development. Many units simply did not have enough people to provide meaningful leadership experienced to cadets.[12]

After the election of 1992, yet another attempt was made to trim ROTC's institutional base. Again, it was personnel cuts that inspired the attempt. In FY 1992 alone, Cadet Command lost 25 percent of its assigned officer strength (346 out of 1348). In January 1993, Major General Arnold targeted another 15 extension centers for elimination. The compelling fiscal need for the inactivations and a lack of determined institutional resistance allowed Cadet Command to proceed with its plans and effect the closures. This brought the number of unit disestablishments executed between 1990 and 1994 to 77, which represented about 18 percent of the ROTC pre-1989 institutional base.[13]

Region Closure

Congressional pressure to reduce headquarters staff and thereby realize the "peace dividend" that the end of the Cold War seemed to promise, led to the streamlining of Cadet Command's intermediate management layers. Section 906 of the FY 1991 National Defense Authorization Act (Public Law 101-510) required the defense department to trim the number of civilian and military personnel employed in management headquarters and headquarters support activities. Faced with this congressional mandate, the Army decided that it could do without an ROTC region headquarters. Accordingly, on June 12, 1992, the Department of the Army announced that the Third Region Headquarters, located at Fort Riley, Kansas, was to close and its assets and subordinate units were to be distributed among the remaining three regions. The official inactivation was to occur on December 31, 1992.[14]

Cadet Command opposed this action. It argued that it needed four regions to facilitate administration and exercise effective command and control. Under a three-region structure, the region span of control would be too wide. But Army authorities remained unconvinced. They had to execute the reductions in management headquarters that Congress had ordered in the FY 1991 National Defense Authorization Act and were working under a short timeline. In 1991, the Deputy Chief of Staff for Personnel (DCSPER) sent a clear message to Cadet Command when it replaced the departing region commander, Brigadier General Floyd J. Walters, Jr., with a colonel, J.C. Parrish, and indicated that henceforth the Third Region would not get a general officer as a commander. Major General Arnold had no choice but to go along.[15]

To determine which region headquarters to eliminate, a study was conducted to assess the ability of the existing region headquarters to support summer training. The number of active Army battalions stationed on the installation and the

overall capacity to host an Advanced Camp (taking into consideration such factors as acreage, ranges available, etc.) were the selection criteria. Forts Bragg and Lewis were found to be more suitable than Riley for the Advanced Camp mission. Hence, the ROTC region headquarters at Fort Riley was eliminated.[16]

Reduction of AGR Force

As the post-Cold War demobilization proceeded, the ROTC's cadre strength increasingly came under attack. One of the most damaging of these attacks occurred in 1991, when an attempt was made to remove all full-time reservists from Cadet Command. The assignment of Active Guard/Reserve (AGR) officers to ROTC units began in 1981. In that year, 101 AGR officers (captains and majors) reported to ROTC instructor groups at selected host institutions across the country. By the end of fiscal year 1986, there were about 640 AGR officers assigned to ROTC battalions—two (one National Guard and one Army Reserve) at each host campus. Throughout the eighties, the AGR officer strength remained in the 600+ range.[17]

In fiscal year 1991, two events occurred that drastically cut AGR officer strength. One was the inactivation of the 62 units as part of Operation Horizon. These inactivations brought AGR strength down to approximately 550. The second and more far-reaching event occurred as a result of the FY 1991 National Defense Authorization Act. This act prohibited the assignment of full-time reservists to the ROTC program after September 30, 1991. Section 687 was added to Chapter 39, Title 10, US Code; it read:

> A member of the reserve component serving on active duty or full-time National Guard duty for the purpose of administering, recruiting, instructing, or training the reserve components may not be assigned to duty with a unit of the Reserve Officers' Training Corps Program.[18]

The passage of the act stunned Cadet Command. It was known that AGR strength was to be reduced by 30 percent over the next six years in consonance with the institutional drawdown projected by Operation Horizon. But no one in the ROTC community expected that such a radical initiative was being considered. It was apparent that since AGR officers constituted a third of ROTC cadre strength nationwide, their withdrawal from campuses by the September 30 deadline would have disastrous results.[19]

Concerns about economy, reserve readiness and functional efficiency motivated congressional proponents of the AGR ban. A report of the Senate Armed Services Committee (SASC) noted that although the Army's ROTC program was a direct source of officers for reserve units, the duties of an ROTC instructor

could be performed by active component soldiers and did not specifically require reserve expertise. Many members of Congress believed that the AGR officers could better be employed elsewhere. An ROTC assignment, they felt, contributed little to reserve readiness and therefore represented a waste of time and money. Some legislators even saw the use of AGR officers in ROTC as an attempt by the Army to circumvent its congressionally mandated end strength. Some senior Guard and Reserve leaders agreed with the SASC report. They, too, wanted to employ their full-time personnel in other ways—to bolster the support given to troop program units (TPU), for example. Like some legislators, they saw the reserve ROTC instructor program as detracting from the primary mission of the reserve components.[20]

Appeals were made to Congress to soften the impact of the legislation. Fortunately for Cadet Command, many members of the House and Senate recognized the impracticability of such a precipitous move and approved a measure, incorporated into the FY 1992 National Defense Authorization Act, which allowed a phased reduction of AGR personnel by normal attrition. Congressional approval of a phased elimination of AGR instructors gave the command some breathing room but did not solve its fundamental problem. Cadet Command began a campaign to garner congressional support for an AGR restoration. Letters were sent to congressmen explaining the importance of the AGR contribution to the ROTC and highlighting the adverse effects that would inevitably follow an AGR pullout.[21]

Cadet Command stressed five principal reasons for continued AGR involvement in the ROTC. First, the Army was the only service that commissioned officers directly into the reserve components through its ROTC. Hence, the RC presence on campus was necessary to "sell" reserve duty as a service option. Second, AGR officers were necessary to manage those programs designed exclusively for the RC. These programs included the Guaranteed Reserve Forces Duty scholarship program and the Simultaneous Membership Program. Third, AGR instructors could establish close working relationships with local reserve units, permitting host battalions to take advantage of training resources and equipment not otherwise available. Fourth, AGR officers were uniquely qualified to advise cadets on RC issues and concerns such as annual training, drill periods, and mobilization planning. Active component cadre often did not have this knowledge. Finally, the AGR ban would entail a manpower loss that, together with the scheduled drawdown of active duty cadre, would necessitate the closure of an estimated 100 additional units.[22]

The arguments advanced by Cadet Command led to a partial restoration of full-time reserve cadre. The FY 1993 National Defense Authorization Act re-

pealed the AGR ban and acknowledged the importance of these officers to the ROTC program. Major General Arnold had requested a total AGR authorization of 275, which equated to one reservist for each host college or university. The Congress gave Arnold 200 of the 275 AGR officers he requested.[23]

Over the course of the next year, Cadet Command pressed to get the additional 75 AGR officers it felt in needed. Again, the Congress acceded to Cadet Command's request. The FY 1994 Nation Defense Authorization Act raised the AGR authorization level to 275. But Cadet Command soon learned that victory in Congress did not necessarily mean victory in the field. The National Guard and Army Reserve, who were also feeing the effects of demobilization, told Cadet Command that they did not have the 75 AGR officers authorized by Congress. The command would have to make do with the 200 AGRs it then had. AGR strength in the ROTC has remained at or slightly above this level to the present day.[24]

Cadre Shortages and Turbulence

The instructor shortages and cadre turbulence that accompanied the drawdown of the early nineties placed severe strains on the ROTC program. With the AGR cutback, the average unit saw its instructional staff reduced by one officer. In some units, this amounted to 25 percent of the instructor force. And the AGR losses, it is important to remember, came in the midst of a sizeable cut in active component instructor strength. Under these conditions, training and recruiting inevitably suffered. Personnel turbulence also extracted a toll on recruiting and training. As a result of Selective Early Retirement Boards (SERB), involuntary reductions-in-force (RIF), voluntary outs, and a number of other personnel policies designed to pare down the size of the officer corps to appropriate levels, ROTC battalions experienced a rapid turnover of cadre. Some ROTC battalions had four professors of military science over a five year period. Assignment " underlap" was another byproduct of personnel turbulence. It sometimes took months for a replacement to arrive on station after his of her predecessor's unanticipated and, in some cases, sudden departure.[25]

The anomalous personnel situation elicited sharp criticism from university officials, especially those whose ROTC units were being closed or threatened with closure. Hazo W. Carter, Jr., President of West Virginia State College, voiced displeasure with the support given the ROTC battalion at his institution by the Army. In a letter to Major General James M. Lyle, who took over as Cadet Command Commander in July 1993, he wrote,

> "It baffles me to know that the Army can provide inadequate support and then threaten the college with the possibility of closure."[26]

Curtis J. Thompkins, president of Michigan Tech University, sounded a similar note:

> Adequate staffing with quality cadre and continuity….are critical elements which will have an immediate impact on the success of Michigan Tech's Army ROTC program. Despite manpower reductions in both services, the Air Force has been able to maintain a full staffed ROTC cadre. Unfortunately, the Army has not done so.[27]

The president of Columbus College, Frank D. Brown, accused the Army of a breach of faith:

> I do not believe there is any way to achieve the assigned mission in our ROTC activity until we have the number of officers we are authorized…I feel strongly that we have not been supported in a good faith fashion but we are moving forward with a genuine team spirit at Columbus College.[28]

The Chancellor of Vanderbilt University, Joe B. Wyatt, complained of turbulence among the cadre and blamed the poor performance of Vanderbilt cadets at advanced camp on the Army:

> [our] students…were not well served by the Army. They had three Army ROTC directors in three years….the Army did not do as good job as it might in providing stable leadership….given serious lack of continuity by Army personnel, I am not surprised by your assessment that our students do not perform well at advanced camp.[29]

The Five Year Plan

By the summer of 1993, it had become obvious that more had to be done in terms of aligning ROTC's institutional structure with a steadily declining defense budget and a shrinking military establishment. Accordingly, between July 1993 and February 1994, the Cadet Command staff put together a plan designed to slash ROTC's institutional base by between 23 and 34 percent over the next five years. The plan was dubbed, for obvious reasons, the five year plan. In its final form, it provided for the "time-phased" elimination of between 60 and 100 units, including both host battalions and extension centers, and outlined the manpower and monetary savings that would be realized in each phase.[30]

Ensuring program stability was a principal concern of the staff officers who drafted the plan. It was to guarantee short-term stability that the plan provided for the incremental reduction of institutional and cadre strength at a rate of approximately 20 units per year (**Figure 1**).

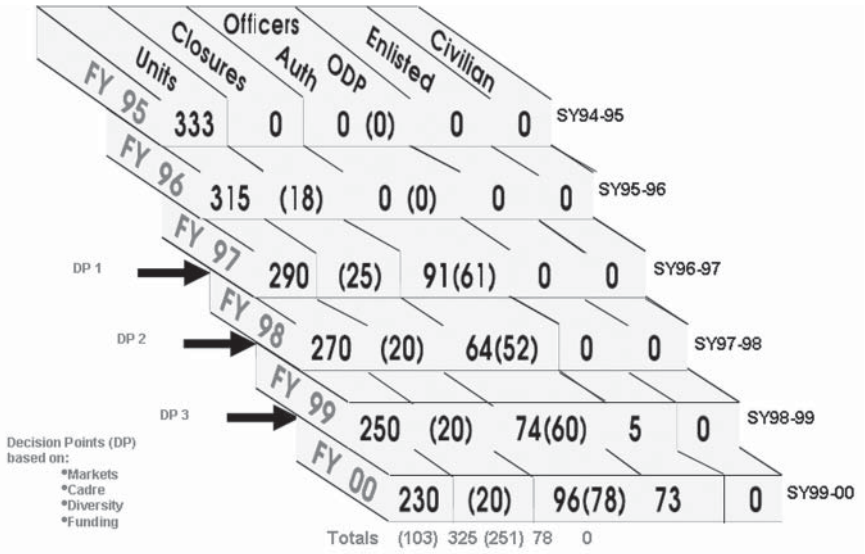


Figure 1.[31] Decision Points for the Five Year Plan

The "time-phased" feature of the plan was intended to forestall the practice of cutting instructors before cutting units—a practice that resource managers had often resorted to in the past.

The five-year plan was also drafted with an eye toward providing for the program's long-term stability. Previous downsizing initiatives (Horizon, Alternative Strategies, etc.) aimed at bringing ROTC's production base on line with near-term officer requirements (i.e., requirements projected one to five years into the future). The problem with this, some noted, was that ROTC production objectives frequently changed; indeed, they had been in a state of almost constant flux since 1988.

By setting ROTC's institutional end state at between 230 and 270, the authors of the five-year plan attempted to cushion the program from such oscillations. In the future, production was to be regulated not by opening or closing schools but by manipulating scholarships and other financial incentives. If officer requirements exceeded ROTC's production capability, then the OCS program would take up the slack.[32]

In September 1995, TRADOC Headquarters informed Cadet Command that it (Cadet Command) was about to lose an additional 100 officer instructors. Once again, people were taken away before structure was reduced. To compensate for these personnel decrements, Cadet Command considered the option of accelerating the pace of disestablishments. Political reality intruded, however, and Cadet

Command was unable to speed the in-activations along. Thus, in FY 1995 and FY 1996, Cadet Command disestablished 18 and 15 schools respectively, ten short of its two year goal of 43 (as outlined in the five-year plan).[33]

Cadet Command encountered stubborn obstacles in its drive to slash unit strength. Some universities, through their ties with influential legislators, were able to bring effective pressure to bear in the US Congress. For example, Washington University in Saint Louis, Missouri, blocked a Cadet Command attempt to shut down its ROTC unit by enlisting the assistance of Senator Danforth of Missouri. Senator Danforth, whose brother was Washington University's president, secured passage of a measure that effectively prevented the command from executing its plan. While the command made significant progress in trimming its institutional base, shutting down an ROTC unit against the will of the affected school remained an extremely problematic proposition.[34]

Attempt to Close Second Region

Unit closures, declining officer requirements, and continuing congressional pressure to reduce headquarters "overhead" prompted yet another attempt to cut ROTC's management infrastructure. The ROTC production mission had dropped from 8,200 in 1989 to 4,500 in 1995. The Army's deputy chief of staff for personnel projected a decline to 3,800 by 1998. ROTC funding levels and personnel strengths likewise continued to fall. In addition, the Bottom Up Review and the National Performance Review, the latter conducted under the auspices of the White House, called for the chiefs of federal departments to "achieve leaner organizations through staff reductions and process engineering." Accordingly, proposals calling for the elimination of another region headquarters, several brigade headquarters, and a summer training site were drawn up. It was hoped that personnel savings achieved through these reductions could be redistributed within the command to shore up and restore undermanned battalions and extension centers.[35]

Cadet Command representatives presented these proposals to the Army Chief of Staff in November 1994. The Chief of Staff of the Army (CSA) approved them in concept. Because of the small numbers of people involved, the brigade closures were allowed to proceed as planned.[36] To eliminate a region headquarters—and hence a summer training site—a preliminary study had to be conducted. The study was supposed to assess the cost-effectiveness of the proposed closure and investigate, among other things, the effects of the closure on the civilian job force in the area and on the local environment. Based on such considerations as the amount of training space and the number of FORSCOM troop units available, billeting potential, and the suitability of available ranges, Cadet Command Headquarters decided to retain region headquarters at Forts Bragg and

Lewis and eliminate the Second Region Headquarters at Fort Knox, Kentucky. It proposed that the Second Region's command, control and administrative functions along with its Basic Camp responsibilities be split between the remaining two regions.[37]

Cadet Command leaders believed that the availability of FORSCOM troop units was particularly important in the selection of summer training sites. The exposure to the atmosphere and ethos of a tactical unit was, they believed, a vital part of the cadet's socialization process. The elimination of either Lewis or Bragg would thus deprive officer aspirants of a key component of their pre-commissioning preparation.[38]

The plan to close Second Region met resistance from a number of quarters. At the Pentagon, the Judge Advocate General expressed concern about the format of the plan while engineers questioned the adequacy of billeting at Fort Bragg. At the same time, Senator Wendell H. Ford and Representative Ron Lewis from Kentucky put up a determined fight against the closure. They, along with many of their constituents, were worried that the closure of Second Region Headquarters would destroy the viability of Fort Knox as an Army post. Lewis and Ford amended the FY 1995 National Defense Authorization Act in both the House and Senate to include language that prohibited the movement or closure of ROTC region headquarters or camps. Section 8074 of the Senate version (July 10, 1995) specifically forbade the elimination of Second Region Headquarters and the removal of First Region Headquarters from Fort Bragg until the Comptroller General had reviewed the data and findings of the Army's closure investigation.[39]

In the end, the arguments of the two Kentucky legislators prevailed and the region headquarters remained at Knox. The Cadet Command staff believed that its failure to close the Second Region Headquarters was due to political pressure exerted by Ford and Lewis. The GAO, on the other hand, attributed the Cadet Command's failure to faulty analysis. Cadet Command's closure study, it charged, focused on short-term rather than long-term solutions to its restructuring needs. It did not, according to the GAO, fully address the impact on FORSCOM installations or the issue of cadet housing and costs. The GAO called for broader based study to examine how best to accommodate the long-term needs of ROTC within the context of the Army's total base structure. There matters stood in relation to Cadet Command's Command and Control architecture until 2003.[40]

USAREC/Cadet Command Merger

Before 1996, Cadet Command leaders had generally resisted pressures by senior defense officials and army leaders to effect a substantial restructuring of the ROTC program. Major General Wagner, Cadet Command's first commander

and architect of its pre-commissioning paradigm, remained in the Fort Monroe area after his retirement in 1990 and continued to exert an influence on the Cadet Command staff and on decision makers in the Pentagon. That influence was used to prevent any substantial alteration in Cadet Command's operating methods. His next two successors—Major Generals Wallace C. Arnold and James M. Lyle—shared Wagner's general philosophy of pre-commissioning training, however much they might diverge from him in details. Both of these men fought to preserve that paradigm intact.

Lyle, in particular, acquired the reputation for being a defender of the existing pre-commissioning model. Over the course of his three-year stay at Fort Monroe, his stock at the Department of the Army gradually fell. Many felt that this was due to his stormy relationship with Ms. Sarah Lister, the Assistant Secretary of the Army for Manpower and Reserve Affairs until March 1998. The two did not get along.[41]

Yet Lyle's troubles extended beyond his problems with Lister. It was undoubtedly his determination to retain the basic model of pre-commissioning training that had evolved since 1986 that hastened his exit from the scene. That model included a robust command and control apparatus, a predominantly active component cadre, a manpower-intensive system of cadet evaluation and an equally manpower-intensive system of summer training. It was a model that many senior army leaders believed that the army could no longer afford—and other senior leaders believed the army could not afford to be without.

By mid-decade, a consensus had emerged among senior army leaders that the army's training base had to be reduced. Budgets were getting tight, the Army's end strength was falling, line units were beginning to suffer from manpower shortages, and readiness was beginning to decline. Congressmen and other critics complained of the Army's "tooth-to-tail" ratio. The ROTC program was a part of the tail and was, therefore, considered an appropriate candidate for downsizing. Even one former Cadet Command Chief of Staff characterized the ROTC as "by definition, the most rear echelon organization in the army."[42]

To make what they considered to be the requisite changes in the ROTC program, senior army leaders—most notably General Griffith, the Vice Chief of Staff of the Army, General William Hartzog, the TRADOC Commander, and Ms. Lister—appointed Major General Stewart Wallace as the Cadet Command Commander in the late summer of 1996. Whereas Lyle, who was an associate of Wagner, brought a lot of ideas about ROTC with him to Fort Monroe, Wallace did not. His last intimate contact with the program had been in 1969 when he was a cadet at the University of Iowa. His lack of preconceived notions about and attachment to the program was undoubtedly one of the reasons he was selected to

be the ROTC chief. To carry out the type of restructuring they were contemplating, senior leaders needed a Cadet Command commander who did not have an attachment to the status quo.

Wallace's intention to make major changes to the program became evident soon after he arrived at Fort Monroe. He announced that he was there to serve the best interests of the Army, not the best interests of Cadet Command. Aware that within Cadet Command headquarters there were many who opposed a major restructuring of the ROTC, Wallace declared that anyone who had been in Cadet Command for more than two or three years was part of the "problem." In this awareness, he exhibited a great deal of insight. As we shall see, several of his organizational initiatives were shipwrecked, in part, through the efforts of recalcitrant elements within the headquarters and in the command.[43]

The agenda for changing Cadet Command had been crafted by Lister, Griffith and Hartzog, but it was Hartzog who apparently provided the most detailed and formal plan for Wallace to follow. One of the most controversial parts of the plan called for the merger of Cadet Command with the US Army Recruiting Command (USAREC). The idea of such a merger was by no means new. It had been pushed forward repeatedly over the previous three decades—most notably, perhaps, in 1970, 1976, 1984-85 and 1991-92. If implemented, it would have been in accord with the general organizational trend in the army since 1987 of headquarters consolidation and organizational flattening. The merger proposal entailed the elimination of ROTC region headquarters, since the ROTC region level of management had no counterpart in the USAREC structure.

The army hoped to attain several goals by the merger. The principal one was to cut personnel strength and apply the savings thus achieved to the field army. A study conducted by the Federal Systems Integration Management Center at the behest of TRADOC, found that the army could save a total of between 120 and 248 positions with such a merger and suggested that the actual savings could in fact be much greater, since the study did not address potential savings at the battalion level, where the bulk of the ROTC cadre strength was concentrated. "Economies" and "efficiencies," it concluded, could be realized in the areas of analysis and evaluation, marketing and advertising. Organizational redundancy would also be reduced. The number of organizations responsible for an aspect of army recruiting would be trimmed from six to five. Since both Cadet Command and USAREC were responsible for bringing new soldiers (including officers) into the army, it only seemed logical to combine the two headquarters and command structures. In addition to saving manpower, it would result in a more efficient, effective and capable recruiting effort. It would do this through "recruiting synergy" and the "streamlining of command, control and support structures."[44]

In the end, this attempt at a merger, like previous ones, failed (although it was not completely dropped). Concerns about combining two commands that had such different cultures and different operating methods prevailed over the push for consolidation. Cadet Command's focus was long-term (up to four years) and included both training and recruiting. USAREC's focus was short-term and lacked training and leader development aspects. Cadet Command targeted the college market. USAREC targeted the college and general market.

Wagner played a role in defeating the merger attempt. In January 1997, he wrote a letter to Sara Lister outlining the reasons why the proposal to combine the two commands would not, in his opinion, serve the army well. He told Lister

> The missions of these two organizations are almost completely disparate. Cadet Command is engaged in the entire complex commissioning process from university recruiting through leader development and training to eventual selection and commissioning. Recruiting command, on the other hand, is a high school recruiting operation targeted at mostly non-college bound youngsters. Both commands do recruit, but mostly in different markets. Recruiting command is not involved in the training and leader development functions that are the life's blood of Cadet Command. Cadet Command not only recruits an Army cadet but trains and motivates him or her through a four year accession system to commissioning….It is difficult to conceive how the missions and functions of these disparate commands could combine into a single headquarters. Granted some jointness could be achieved in marketing and resource management, but in the training/leader development areas it would be impossible. There is a serious danger here that doctrine such as the Leadership Assessment Program (LAP) and even the basic execution and supervision of advanced camp would suffer, with the possibility of degrading the leader development of our cadets.[45]

Wagner also warned of the adverse effects that a merger would have on the Junior ROTC program:

> JROTC under a Recruiting Command Headquarters would immediately become unpopular in parts of the nation. Much of the secondary school community is very guarded about having a recruiting presence on campus. Cadet Command has always stated that citizenship—not soldier recruiting—is our objective. This approach has worked so far. If the important citizenship enhancing presence of JROTC is removed from the inner city secondary schools an important value added feature to our society will be destroyed.[46]

Alternative Staffing

The opponents of change were not successful, however, in blocking the introduction of contract instructors into the ROTC. In the latter half of the nineties, an increased optempo combined with recruiting difficulties to pressure the Army to withdraw active-duty soldiers from the training base and headquarters organizations and assign them to line units. To find ways to return officers and non-commissioned officers to line units, the Army tested a number of "staffing alternatives." It conducted these tests under the auspices of "Umbrella Issue 41," which was part of the Army's Institutional/TDA Redesign Study intended to bolster the personnel readiness of the operational Army. They were approved by Vice Chief of Staff of the Army (VCSA) and Ms. Lister on February 23, 1996. One of these alternatives called for the use of contract ROTC instructors. MPRI, a professional services firm headquartered in Arlington, Virginia, was awarded the contract for providing these individuals. Originally, about one-third of them were retirees; the rest were reservists. A test of this option began in School Year 1997-1998 at 16 institutions involving contract personnel. Nine more schools were added to the list of participants the following academic year, bringing the total number of contract cadre up to 75.[47]

Some expressed reservations about the contract instructors. Retired four-star generals, senior officers from other services, and the Cadet Command Commander (MG James M. Lyle) were among those who protested. The heart of the ROTC experience, they argued, was the person-to-person interaction between cadet and officer. The retirees and reservists who worked for MPRI might be fine instructors but they would not be appropriate role models for cadets. They would be too old, too out of shape, or too out of touch with the contemporary Army to be of much value in this regard.

To prevent these fears from materializing, the command built into its contract with MPRI some restrictive clauses relative to the use and quality of the contractors. These clauses included requirements to meet Army height and weight standards and pass the Army Physical Fitness Test (APFT). They also stipulated that officer applicants had to have served at least eight years and enlisted applicants at least 15 years to be eligible for employment. Experience as a company commander (officers) or as a platoon sergeant (non-commissioned officers) was listed as a highly desirable characteristic. In addition, the contract specified that no one who had been retired for more than two years could be hired and no one could serve for more than five years.[48]

After one year, the RAND Corporation provided an initial evaluation of the test. It reported that units participating in the experiment were performing as well as other units. Some discounted the RAND findings because, they argued, one

year was far too short a period for a valid assessment of the long-term impact of the contractor alternative. Some ROTC cadre and senior officers in the chain-of-command, however, also gave the contract instructors passing marks. The question that remained in their minds was "When the contract instructor force is expanded, can instructor quality be maintained?"[49]

Another impetus for an increased use of contracted cadre came in November, 1999, when the Army's Chief of Staff, General Eric Shenseki, made a decision to fully man the Army's 10 divisions and two armored cavalry regiments by October 1, 2000. Largely as a result of this decision, the contractor force in ROTC grew from 75 in September 1998 to 363 in September, 2000. The latter figure represented about 30 percent of the ROTC instructor force. A proposal to expand the use of contractors beyond the 363 level was entertained but quickly shelved. Senior Army leaders apparently felt that the contracted officers should be more thoroughly assimilated into the program before more were hired.[50]

Major General Stewart Wallace saw the contractor option was a viable long-term solution to ROTC's persistent staffing problems. He saw two distinct advantages in it. First, it insulated the ROTC program from the roller coaster effect of cyclical personnel resourcing decisions by removing a substantial portion of the instructor force from under the control of the Army's personnel management community. Second, it gave the program a mature and stable complement of instructors who acted as a counterbalance to the active component cadre. Continuity was a quality that the ROTC had often lacked in the past. Colonel Kerry Parker, Chief of Staff of the First Region from 1999-2003, believed that the ability of MPRI and, after February 2002 Com Tek, to rapidly fill vacancies was another advantage. It sometimes took months for the Pentagon to identify and dispatch a suitable candidate to the ROTC. A contractor fill could be done in weeks, or even days.[51]

Cadet Command's deputy commanding general during this period, Brigadier General William Heilman, was not as enthusiastic about the contractor option as his boss. He stated that in the matter of contract cadre, Cadet Command was given a Hobson's choice, that is, take the contractors or go without cadre. It was clear that Heilmann did not believe that contract instructors were the optimal solution to the command's personnel dilemma. There were many officers in the command who agreed with Heilmann.[52]

An even more controversial staffing alternative tested during this period involved the use of reservists assigned to Army Reserve Troop Program Units (TPU) as ROTC instructors. A "proof of principle" (POP) test of this alternative began in School Year 1997-98 at three universities—the University of South Carolina, Georgia Institute of Technology, and the University of Central Florida.

The goal of this initial test was to assess the feasibility of replacing both an active component (AC) assistant professor of military science (APMS) and an AC training NCO with groups of eight reservists. Only at the University of South Carolina, however, were both the APMS and training NCO replaced. At Georgia Tech and Central Florida, only the APMS was replaced. The results of that experiment were mixed. It worked better in some places than others. The distribution of reserve units, the local environment, the skills, qualifications and availability of reservists and the resourcefulness and attitude of ROTC cadre affected the outcome.[53]

Despite the mixed results, Cadet Command and the US Army Reserve Command (USARC) decided to proceed with the full-fledged test at 10 institutions. But Cadet Command did so in a tentative manner. Major General Wallace believed that the original blueprint for the TPU test was "faulty." That blueprint, developed by the RAND Corporation for the purpose of returning officers and NCOs to line units, called for eight TPU reservists to "replace" one full-time cadre member. In the opinion of Wallace and many ROTC cadre members, such a staffing arrangement would degrade leader development, which required frequent and regular face-to-face interaction between cadet and instructor. An individual who worked at a unit only part-time (four or five hours per week) could not provide such interaction. Moreover, finding TPU reservists who were available during normal weekday hours posed a problem in some areas. Many civilian jobs did not permit prolonged absences during the day. Personnel turnover was a major concern of the professor of military science (PMS) at Georgia Tech. Reservists joined and left the unit at a rapid pace, reducing the value of their collective contribution.[54]

His reservations about the replacement model led Wallace to propose that a second test be conducted—one in which TPU soldiers would not replace but "augment" or reinforce active component cadre. In this new scheme, groups of "up to eight" reservists would be assigned to host programs with the specific goal of boosting production at "partnership" schools (formerly designated as cross-enrolled schools). It was a scheme that had worked well at the University of Central Florida and the Cadet Command Commander believed that it might work in other places as well. Cadet Command and the US Army Reserve Command (USARC) agreed to conduct a second test, designated Proof of Principle Test 2 (POP2), at eight schools beginning in school year 1998-1999.[55]

Like their active component counterparts, senior reserve leaders entertained reservations about the TPU staffing alternative. Officer production shortfalls created some of these reservations. In 1999, the Cadet Command officer production mission stood at 3800, about 700 of which were supposed to be commissioned in

the Army Reserve or Army National Guard. The ROTC did not make its mission, however, falling approximately 600 short of requirements in Fiscal Year 1999. Due to the Army's policy of giving priority of fill to the active component officer requirements, it was the reserve components that suffered from production shortfalls. In FY 2000, for example, the Army Reserve received fewer than 80 of the 300 lieutenants that Cadet Command was tasked to produce for it. The production shortfall was vexing to reserve leaders in view of the $11 million in direct support that the Army Reserve provided to Cadet Command each year.

Certain organizational anomalies also gave reserve leaders cause for concern. The Army Reserve had participated in both "replacement" and "augmentation" tests with "provisional" TDAs. People for these provisional units were borrowed from "legitimate" units on a temporary basis. This resulted in personnel turnover, recruiting and retention problems, and fewer opportunities for promotion in provisional units. Non-commissioned officers were particularly hard hit by the lack of promotion opportunities. Such an irregular arrangement, if adopted as a permanent solution, would leave the units and the training divisions susceptible to future cuts. The Army Reserve pressed to have the provisional organizations it created "legitimized," that is to say, given an approved structure so that these units would be regarded as relevant to the Army and shielded to a certain extent from future cutbacks. This was achieved by the beginning of school year 2000-2001, thus eliminating at least some of the concerns of reserve component leaders about the initiative.[56]

To resolve the remaining issues, Major General Wallace and Major General Thomas J. Plewes, commander of the US Army Reserve Command, met on June 14, 2000. The stated goal of this meeting was to develop a program that would boost overall lieutenant production and reserve lieutenant production, facilitate the integration of the active and reserve components, and improve the efficiency and effectiveness of Cadet Command. The plan crafted to achieve this goal applied what the two leaders considered to be the best of both the replacement and augmentation staffing models. The new plan called for the Army Reserve to continue to provide a total of 256 spaces, which represented the sum of reserve personnel authorizations in both the replacement and augmentation tests, but to redistribute these spaces among the various universities involved.

Under the provisions of the new plan, the Army Reserve was to replace one active component position at eight universities—Northeastern, Hofstra, Widener, Hampton, South Carolina, Central Florida, Marquette, and Georgia Tech. A total of 64 reserve soldiers were devoted to this effort—eight reservists at each of the eight universities involved. The tentative TDA design called for six TPU officers and two TPU non-commissioned officers to be assigned to each replacement

team. Each team was to include one lieutenant colonel, two majors, three captains, one master sergeant and one sergeant first class.[57]

The Army Reserve provided augmentation teams to a much wider range of universities. The three-person augmentation teams provided for in the new plan were designed to equip the PMS with the capability of conducting basic course programs on partnership campuses. The number of teams assigned to each university depended on the size of the targeted partnership school. The goal was to increase annual production for the Army Reserve by at least two lieutenants per augmentation team. In designing the new augmentation model, Cadet Command leaders assumed that the production potential of host institutions had been exhausted by the existing on-campus cadre. Partnership schools, on the other hand, represented a largely untapped, or at least unexplored, market. Although the focus of the new model was clearly on partnership schools, the local PMS was not prohibited from using augmentation teams at host campuses if circumstances required it.[58]

The tentative TDA structure for the augmentation team included one major, one captain and one sergeant first class. As a tool to assist their recruiting efforts, each augmentation team was "linked" with one Army Reserve two-year scholarship. In addition, Guaranteed Reserve Forces Duty (GRFD) control numbers were linked to each team in an effort to create an adequate base for recruiting the desired number of MS IIIs.

Originally, 64 USAR augmentation teams were distributed among 50 ROTC units. A number of factors determined the location of these 64 teams. Among the most important criteria were: (1) the student population at the partnership school; (2) the history of previous production; (3) the assessment of the local PMS; (4) the desire of active component cadre to implement such a program; (5) the availability of reservists; and (6) the equity of dispersion among the seven USAR institutional training divisions administering the test. Augmentation teams were in place by the spring semester of School Year 2000-2001. After 2001, the program expanded. By the summer of 2004, Cadet Command was supported by 87 augmentation teams, which covered 95 schools. There were a total of 226 TPU officers and 106 TPU NCOs manning the 87 teams. The so-called "replacement" scheme, on the other hand, proved ineffective due to the reasons previously elaborated. Replacement teams were gradually converted into augmentation teams. Today, there are no replacement teams remaining the program.[59]

Organizational Streamlining

The most momentous change in the program's headquarters structure in the post Cold War era began in 1997. In that year, Major General Wallace announced

the decision to cut the size of region headquarters in half and transfer a portion of the savings achieved to the national and brigade headquarters. Over the next four years, Cadet Command headquarters and the brigade headquarters grew substantially at the expense of the region headquarters. The command as a whole realized a net savings of 121 authorizations (**Table 1**).

Table 1.[60] Total Cadet Command Authorizations FY 1996 to FY 2001

Unit	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01
CC HQ	123	142	152	184	217	216
1st Region						
HQ	138	128	105	81	48	47
BDE	53	62	62	65	65	65
BN	1066	1061	926	921	909	891
2ndRegion						
HQ	98	107	93	71	59	57
BDE	47	49	50	58	50	50
BN	807	849	730	720	728	734
4th Region						
HQ	110	101	86	74	61	60
BDE	45	49	53	53	53	53
BN	736	696	602	603	597	609
TOTAL	3223	3244	2859	2830	2787	2782

More significant than the number of spaces saved was the functional realignment that took place. As a result of the realignment, the regions lost many of their administrative and logistical functions and became essentially command and control (C2) headquarters. Along with their logistical and administrative responsibilities, the regions also forfeited some of the power and autonomy they had enjoyed since their creation in 1973. Some officers, in anticipation of further manpower decrements, urged that region headquarters be abolished entirely. The Cadet Command Commander, however, rejected this idea, believing that it would complicate summer camp operations and create span of control problems. Brigades, on the other hand, became more robust entities and took on more oversight responsibilities. In its enlarged form, Cadet Command Headquarters began to assume a more customer service orientation and exercise a more centralized control over administration and logistics.[61]

There were also changes in unit designation during this period. On October 6, 1999, Cadet Command requested that all 15 remaining ROTC “extension centers” be converted into “host units.” The request was quickly approved. The Army had introduced the extension center at the beginning of school year

1975-76 for the purpose of rapidly expanding officer production. Originally, the extension center had differed from the host unit in several important ways. First, it could be established and closed by the Commanding General, US Army Cadet Command whereas a decision about the establishment or closing of a host unit had to be elevated to the Secretary of the Army. Second, host units were provided with administrative and logistical support personnel while extension centers were not. The latter had to rely on host units for such support.

Over the years, the distinction between hosts and extension centers blurred. Professors of Military Science for both types of unit were chosen by the same centralized selection board. Extension centers were treated as independent entities in the allocation of scholarships and the setting of production objectives. Moreover, all extension centers eventually had either organic administrative or logistical assets assigned to them. In six out of the 15 schools in question, the centers had both types of support. Cadet Command leaders believed that the upgrade of these extension centers to host status would strengthen the Army's relationship with the schools concerned without requiring additional expenditures. All 15 were redesignated as host units by September 30, 2000.[62]

Realignment

The US Army Cadet Command underwent another major organizational realignment in 2003. During that year, the command went from a three-region structure with 13 brigades to a two-region structure with 14 brigades, at least with regard to the Senior ROTC. The region and brigade boundaries under the old three-region structure (as of October 2002) are depicted in **Figure 2**.

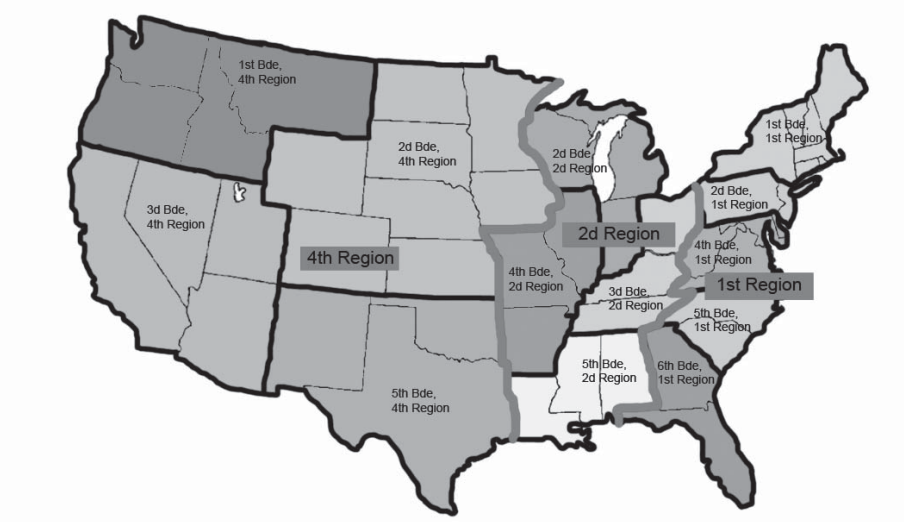


Figure 2. US Army Cadet Command Region and Brigade Boundaries October 2002

Cadet Command effected the realignment by disestablishing the First ROTC Region, whose headquarters had since its inception in July 1973 been located at Fort Bragg, North Carolina[63].

The organizational realignment took effect on 1 June 2003. After the realignment, Cadet Command was left with an Eastern (the former Second Region Headquarters) and a Western Region (former Fourth Region Headquarters). The new regional and brigade boundaries after the realignment are depicted in **Figure 3**.

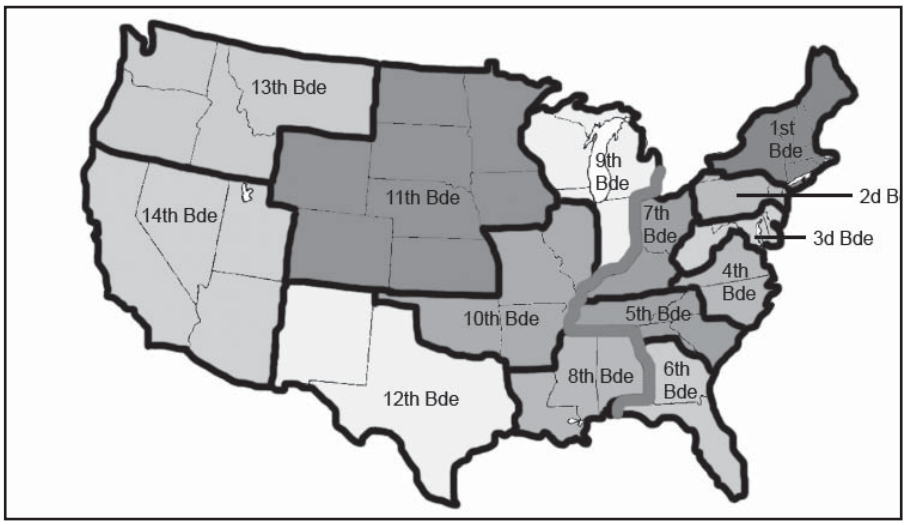


Figure 3. US Army Cadet Command

This reorganization occurred principally because of pressures to "save" manpower spaces. The spaces thus "saved" were to be either returned to a sorely pressed active army that was intent on reducing the army's overhead and bolstering line units. These spaces were also necessary to offset new demands for personnel created by the creation of the US Army Accessions Command (USAAC), a command established to oversee accessions and initial entry training for the US Army. The US Army Cadet Command (USACC), the US Army Recruiting Command (USAREC), and the Initial Entry Training Center at Fort Jackson, South Carolina were placed under the new command, which was officially established on 15 February 2003.

The driving force behind the realignment was the army's desire to reduce "overhead" and return soldiers to the operational army, which was then engaged in the Global War on Terrorism (GWOT). The personnel "savings" achieved through the closure of First Region were to be returned to line units, assigned to one of the two remaining region headquarters, or used to staff the newly created

US Army Accessions Command (USAAC), the organization that since its establishment on February 15, 2002 was responsible for enlisted and officer accessions and initial entry training. (The subordinate units of the new USAAC were, in addition to Cadet Command, the US Army Recruiting Command (USAREC), and the US Army Training Center (USATC) at Fort Jackson, South Carolina). In all, the realignment saved 11 personnel authorizations for the Army.[64]

The transition from a three-region to a two-region structure was not smooth. Changes were introduced at the eleventh hour that threw the process into confusion. The Chief of Staff of First Region at the time, Colonel Kerry Parker, described it as "a last minute zoo." The final brigade boundaries in what was to become the Eastern Region were, due to last minute alterations in the restructuring plan, drawn up in a few hours.[65]

The disruption stemmed from the last minute scuttling of the "Elite Brigade," dubbed the "snooty" brigade by some of its critics. This Elite Brigade was the creation of Major General John T.D. "Rusty" Casey, the Cadet Command Commander from the summer of 2000 through the summer of 2003. The brigade included prestigious schools such as Princeton, MIT, Cornell, Duke and Johns Hopkins.

Casey initially wanted to organize the ROTC along functional rather than geographic lines. He assumed that the units in this proposed brigade would have essentially the same demographics, confront many of the same problems, share a common culture, operate on similar assumptions, and respond to incentives and other policies essentially in the same way. A brigade commander and staff could manage more efficiently a brigade with such a homogeneous institutional base. As it was, a brigade commander had a great range of schools within his area of responsibility, schools with disparate needs and characteristics that differed greatly in terms of cost, competitiveness, and societal standing. Casey wanted to extend his functional organization scheme beyond the so-called elite brigade. He also considered organizing a brigade for senior military colleges (i.e., VMI, the Citadel, Texas A&M, North Georgia College, Norwich University) and for Historically Black Colleges and Universities (HBCU).[66]

Just as the Elite Brigade was about to be implemented, however, a retired general officer who was a member of the ROCKS, an organization devoted to the mentoring of African American junior officers, learned of Casey's plans and reportedly intervened with the TRADOC commander to block its formation. The general feared that the creation of this unit would greatly weaken the position of Historically Black Colleges and Universities (HBCU) within the ROTC structure by siphoning off scholarship dollars to high cost, prestigious schools. His fears may have been justified because Casey was widely regarded as a great proponent

of bolstering ROTC's presence in the nation's elite universities and of lowering the program's presence in less competitive schools.[67]

Many observers contended that, as a result of the 2003 realignment, Cadet Command's span of control had become too wide. Each region now had to control, on average, seven brigade headquarters, 136 senior units, and over 700 Junior ROTC units. One brigade commander called the post-realignment span of control "ridiculous in its scope." Cadet Command deputy commander, Brigadier General Gratton N. Sealock, gave a more restrained but similar assessment. In his estimation, the realignment "flattened the organization too much" and made the control of subordinated units by the brigade commander "almost impossible."[68]

The realignment also left the intermediate levels of command (i.e., region and brigade) inadequately staffed. The substantial increase in workload that the realignment had occasioned in the region headquarters was not accompanied by a commensurate increase in personnel authorizations. Cadet Command hired contractors to offset the personnel shortages, but this did not completely make up for the losses. The effects of barebones staffing was particularly noticeable in the Junior ROTC program. Mid-level personnel (GS-11s and GS-12s) found themselves doing clerical work instead of functioning as program managers. Supervision inevitably suffered.[69]

In fact, the realignment resulted in the region headquarters being excluded from any active role in the supervision of many functions. This was because the two remaining region headquarters were, with their diminutive staffs, so focused on summer training—the Western Region on the Leader Development Advanced Course (LDAC) and the Eastern Region on the Leader's Training Course (LTC)—that they did not always have time for or enough staff to handle many routine administrative matters. Increasingly, actions went straight from the brigades, and in some cases battalions, to Cadet Command headquarters.[70]

Staffing shortfalls plagued the brigade headquarters also. Brigade headquarters had been bolstered to accommodate the increased workload, but the plus-up had been insufficient to handle the increased demands. Lack of personnel induced many brigade commanders to use personnel designated for the Junior ROTC to perform duties and functions related to the Senior ROTC. This was done in part out of necessity (there was not enough people to perform all of the functions) and in part as a result of command policy. Major General Casey had instructed his brigade commanders to keep their "hands off" Junior ROTC and concentrate on producing commissioned officers through the Senior ROTC. The upshot was that the Junior ROTC suffered from a sort of "benign neglect."[71]

Junior ROTC

The downsizing of the JROTC management apparatus began in the mid-nineties. As was the case with the senior program, the steady pressure exerted by Congress to reduce the headquarters support structure was a driving force behind this downsizing. One study of the Junior ROTC program conducted at the time found that approximately 30 percent of the junior program's manpower was being consumed by program administration. This was far too much, in the opinion of some defense officials. Ms. Lister directed that an assessment be made of JROTC staffing and organization for the purpose of reducing costs and saving manpower. The resultant study, conducted by the US Army Force Integration Support Agency (USAFISA) in the spring of 1995, recommended that these savings be achieved by centralizing some functions at the national headquarters, drastically cutting the JROTC staffs at the three region headquarters, and moderately bolstering the staffs at brigade headquarters to accommodate some of the additional responsibilities that would devolve upon them. After some haggling between representatives of the ROTC and USAFISA, it was agreed that the Junior ROTC staff would be reduced by about 15 percent (95 vs. 81 authorizations) and the management staffs configured along the general lines proposed by the USAFISA.[72]

The Junior ROTC management structure, however, came under increasing strain after the beginning of the new century. The strain was a result of the JROTC expansion (the third such expansion in the post-Vietnam era) that began in the autumn of 2000. The original expansion plan, announced by the Secretary of the Army Louis Caldera in July, 1999, called for the creation of 50 units in school year 2000-2001 and of 45 more units each year thereafter until the legislative limit of 1645 was reached in fiscal year 2006. This would give the army about half—or 47 percent—of the congressionally established defense department ceiling of 3500 units, reflecting the unit distribution scheme among the services prescribed by Section 2103, Title 10 of the US Code (**Table 2**).[73]

Because of a higher than expected unit attrition rate, however, the army found it necessary to add more units on an annual basis than it had originally projected. School budget shortfalls and, possibly, the demands on school systems made by the No Child Left Behind Act (NCLBA) of 2001, resulted in an unusually large number of schools dropping the program over the last several years. To reach the 1645 mark, Cadet Command had to add 83 units, instead of the 45 it had originally projected, during school year 2004-2005.[75]

Table 2.[74] Army JROTC Expansion School Year 1997-1998 through School Year 2004-2005

School Year	Number of Units	Enrollment
1997-98	1368	228,163
1998-99	1370	231,060
1999-00	1370	234,471
2000-01	1420	243,103
2001-02	1465	250,008
2002-03	1510	272,746
2003-04	1530	267,343
2004-05	1563	274,176
2005-06	1645	

The Junior ROTC Expansion

Various factors came together to propel the expansion forward at the end of the century. A continuing need for public outreach played a part. Throughout the mid and late nineties, various observers perceived that the military was becoming increasingly isolated from society. Junior ROTC was one medium through which this connection between the civilian and military communities could be maintained. Indeed, among many segments of the public, ROTC is Junior ROTC. It has, according to studies conducted for Cadet Command, much more public visibility than the senior ROTC.[76]

This is easily comprehended by viewing enrollment trends over the past three decades. During that time frame, the junior and senior programs have moved in opposite directions. In school year 1968-1969, the senior program boasted an enrollment of almost 151,000, while the junior program had only 102,000 participants, and was rapidly losing students. Twenty six years later, the senior ROTC numbered slightly more than 25,000 cadets while enrollment in the junior program reached an all-time high of almost 275,000 cadets. Clearly, the junior program has displaced the senior program as a vehicle of public outreach for the army.[77]

The Junior ROTC was also seen as a way for the Defense Department to contribute to national educational goals. These goals encompassed not only academic skills but various habits, attitudes and orientations that allowed students to become obedient and tractable citizens and "good workers." Respect for "constituted authority," the ability to work as a member of a team, punctuality, neatness, "etiquette," loyalty, and trustworthiness were purportedly as important to employers in the twenty first century as they had been in the nineteenth century.[78]

Popular demand, as it had been in the past, was another factor that propelled the expansion forward. Throughout the latter half of the nineties, Congressmen bombarded Cadet Command headquarters with letters, asking for more units. Major General Stewart Wallace, the ROTC Commander, told the Secretary of the Army that he received such requests from congressmen asking for a new JROTC unit "virtually every week." As of June 9, 1998, there were 204 high schools on the waiting list. Wallace told the Secretary that the army could expect that list to grow "by several times" if there were a reasonable hope of new starts.[79]

The Junior ROTC also remained an important source of employment for military retirees. On the eve of the expansion, the army's JROTC had over 2700 retired officers and NCOs in its instructor force. By the beginning of school year 2004-2005, that total had grown to over 3300. The Army Retiree Council recognized the importance of the JROTC as a source of jobs for its membership. It described the program as a cost effective, highly structured, successful program involving a significant segment of the military retiree community.[80]

Accessions shortfalls were probably the most powerful force behind the expansion, however. The army had to face a very difficult recruiting environment in the late 1990s. A booming economy, which held an abundance of entry-level jobs, coupled with an increasing propensity on the part of high school students to attend college, cut deeply into the army's traditional recruiting market of non-college bound high school graduates. In this environment, the program once again began to be looked upon as a fertile ground for new accessions. One often-adduced study claimed that JROTC cadets were five times more likely than their contemporaries to join the military. It was data such as this, perhaps, that prompted former Secretary of Defense William S. Cohen to describe the program as "one of the best recruiting devices that we could have." The demands placed on the Army by the Global War on Terrorism (GWOT) has, of course, made the expansion even more compelling and may lead to further program growth in the future.[81]

Since the fall of the Berlin Wall, the JROTC management chain has become increasingly tenuous. After 1990, intermediate (i.e., region and brigade) headquarters had been reduced or eliminated based on the lowered lieutenant requirements of the army. At the same time, ROTC's institutional base in the senior program shrank from 420 units to 270. It would take less "overhead" and smaller headquarters, it was assumed, to manage a smaller program (**Table 3**). In this restructuring process, however, the management needs of the Junior ROTC program were ignored. No organizational moves were made for managing the hundreds of units that have been added since 1990.

Table 3. ROTC Management Structure 1989-2005 (Selected Years)

Year	No. of Regions	No. of Brigades	No. of Senior ROTC Units	No. of Junior ROTC Units
1989	4	16	420	865
1991	4	16	410	853
1993	3	15	311	1028
1995	3	14	287	1240
1997	3	13	270	1370
1999	3	13	270	1380
2001	3	13	270	1432
2003	2	13	272	1500
2005	2	13	272	1645

Thus, in 1990, the average brigade controlled 54 high schools; by 2005, that average stood at 127. Over the same period, the region span of control increased, on average, from 216 to 781 units. But simple averages obscure the true scope of the problem. Because Junior ROTC units are heavily concentrated in the southeastern portion of the nation, some brigades must control over 200 units while others control fewer that 50. The Sixth Brigade, which encompasses Florida and portions of Georgia, controls 240 units while the Third Brigade, which encompasses Delaware, Maryland, West Virginia and portions of Virginia, controls 49.

The Junior ROTC Directorate at Fort Monroe became convinced that management changes were necessary to reassert a degree of control over the program—changes that would ensure that Junior ROTC staff members at the brigade headquarters were used for their designated purpose and that units would be visited on a regular basis. Accordingly, in December 2003, it began a test, called the Area Coordinator (AC) test. In certain areas on the east coast, the JROTC staffs were taken out of brigade headquarters and consolidated in one management cell. These AC cells were to report directly to Cadet Command headquarters, bypassing both the brigade and region management level. The cell, which had no ties with the senior program, was to be devoted exclusively to the administration of the junior program. The staff at the national headquarters believed that it provided an acceptable, if not ideal, solution to the Junior ROTC's management problems. While the staff-to-unit ratio was very high under the AC test, at least all elements allocated to the program were used for their intended purpose.

There was intense resistance to the idea in the field, however. Brigade commanders chaffed at losing people from their diminutive staffs. Some argued that, in their brigade, the Junior ROTC was not being neglected and asked why should these assets be taken away from them. Others objected to the idea of decoupling

the junior from the senior program. This decoupling would presumably destroy the cooperation and synergistic relationship that some brigades had developed between junior and senior units and restrict the flow of junior cadets into the senior program. Moreover, a few argued, having one headquarters, assisted by only five relatively small AC cells, control 1645 units ran contrary to army management theory and practice. The span of control would be unconscionably broad. And finally, there was a fear that separating the junior from the senior ROTC would make it easier for the Army and the Defense Department to divest themselves of the JROTC program altogether. By separating the two, the first step would already have been taken.

In the end, the arguments of the brigade commander won out. The AC experiment was shelved. For the present at least, Junior ROTC units will remain under the control of the brigade headquarters. However, the AC concept has not been totally abandoned. The current director of the JROTC Directorate within Cadet Command headquarters is a supporter of the scheme and is presently trying to resurrect it as an alternative to the present organizational arrangement. How successful he will be is unclear.

Conclusion

The Global War on Terror has presented more challenges to an organization that even before September 2001 was feeling the effects of the personnel and resource decrements of the preceding decade. The ROTC's contract instructor force, 75 percent of which is comprised of reservists, has been particularly hard hit. In May 2005, about one-fourth of all ROTC contract instructors were deployed. Some were replaced by temporary hires, who, according to several brigade commanders, have to devote some time during their relatively short stay in an ROTC battalion to searching for their next job. Deployments have also affected the reserve augmentation teams. In certain areas, these teams are no longer available to support the ROTC. In others, they have been greatly depleted.

Moreover, the ComTek instructor has aged over the past several years. Due to the difficulties encountered in filling instructor positions, the average age of contract cadre has reputedly increased by 12 years since the beginning of the century. At the Leadership Development and Assessment Course (LDAC)—formerly known as Advanced Camp—instructors over 60 years of age have recently served as platoon tactical officers.

Pressure to cut headquarters management and support activities has not abated over the last several years. Neither has the push to take officers and non-commissioned officers out of the training base and assign them to operational units. Cadet Command is currently studying realignment alternatives for the purpose of

streamlining its organization and of saving personnel authorizations. Given the tenuous state of the ROTC command and control apparatus, it seems unlikely that the Army can execute these realignments and save manpower without making fundamental organizational changes—changes that would lead to the abandonment of the organizational model that the Army has used to manage the ROTC since the Steadfast Reorganization of 1973.

Notes

1 US Army Cadet Command, *Annual Command History, 1 January—31 December 1990* (Fort Monroe, Va.: USACC, 1991):38-39.

2 Ibid. The procedure that the command had developed for eliminating unproductive units, the Effective Management Program (EMP), was not an appropriate instrument for the closings projected in Horizon. That procedure involved a four year inactivation timeline but Cadet Command had only one year in which to make major cuts. To effect the drawdown with the necessary rapidity, therefore, the command chose to rely on the expedient of the "contract closure." A review of the standardized contract between the Army and institutional authorities revealed that a host institution could be closed in one academic year and an extension center in one semester if either the school or the Army terminated the contract for whatever reason.

3 Arthur T.Coumbe and Lee S. Harford, *US Army Cadet Command: The Ten Year History* (Fort Monroe, Va.: GPO, 1996):234.

4 Information Paper, DAPE-MPO, LTC Kitchen, 2 June 1991, subject: AUSA Draft Resolution #1.

5 Author interview with MG Wallace C. Arnold, January 15, 1993. Fifty of these unit closures were part of the original plan. The other 12 were Effective Management Program closures, which involved ROTC units that had been identified for elimination before the Horizon plan had been developed. However, all 62 actions are commonly lumped together under the Horizon label because they were worked concurrently.

6 US General Accounting Office, *Reserve Officers' Training Corps: Less Need for Officers Provides Opportunities for Significant Savings*, B-242016.2 (May 6, 1991): 14.

7 Ibid.: 24,27, 46 and 48.

8 Coumbe and Harford:237.

9 Ibid.: 238.

10 US Army Cadet Command, *Annual Command History, 1 January—31 December 1991* (Fort Monroe, Va.: USACC, 1992):35. Author interview with LTC Mike Hodson, May 31, 1995.

11 Fact Sheet, ATCC-MO, LTC James Janele, 25 June 1992, subject: Alternative Strategies; Author interview with LTC James Janele, March 1, 1992.

12 Coumbe and Harford: 240.

13 Author interview with LTC James Janele, May 26, 1995; US Army Cadet Command, *Annual Command History, 1 January—31 December 1993* (Fort Monroe, Va.: USACC, 1994):42.

14 Memorandum, Christopher Jehn, ASD (MF&P), For Secretaries of the Military Departments, May 3, 1991, subject: FY 1991 Management Headquarters Reduction; Memorandum, Christopher Jehn, ASD (MF&P), For Secretaries of the Military Departments, June 28, 1991, subject: FY 1991 Management Headquarters Reduction. (2) US Army Third ROTC Region, Annual Historical Summary, 1 January—15 November 1992 (Fort Riley, KS: 22 December 1992); Memorandum of Instruction (MOI) for Third Region Closure and Inactivation, ATOC-CG, COL Robert B. Suave, Chief of Staff, Third ROTC Region, n.d.

15 After Action Report (AAR), Third ROTC Region, Tab G, 22 December 1992; FY 1991 National Defense Authorization Act, Public Law 101-510, 102nd Congress, 2nd Session, October 5, 1990.

16 Author interview with LTC James Janele, May 26, 1995.

17 Impact Paper, n.d., subject: Congressional Action Eliminating the Assignment of Full-Time Army National Guardsmen and Army Reservists to ROTC units; Memorandum for Record, ATCC-ZR, COL W. Ellis, Reserve Forces Advisor, 31 October 1991, subject: Removal of AGR Support from ROTC.

18 Chapter 39, Title 10, US Code.

19 Information Paper, ATOB-RC, LTC Crowson, ARNG Adviser, 2 October 1992, subject: AGR APMS Placement Project.

20 Impact Paper, n.d., subject: Congressional Action Eliminating the Assignment of Full-Time Army National Guardsmen and Army Reservists to ROTC units.

21 Memorandum, ATCC-ZR, COL William Napper, Jr., to CAR, 23 December 1992, subject: Active Guard Reserve (AGR) Allocation; FY 1992 Defense Authorization Act, Public Law 103-313, 102nd Congress, 1st Session, October 5, 1992.

22 Memorandum, ATCC-PC, MG Arnold for DCSPER, 12 February 1993, subject: Request for Legislative Action (AGR).

23 FY 1993 National Defense Authorization Act, Public 102-337, 102nd Congres, October 5, 1992.

24 Author interview with LTC Victor R. Coffenberry II, 12 December 1995; Author interview with COL Douglas S. Becker, 12 December 1995; FY 1993 National Defense Authorization Act, Public Law 102-357, 103 Congress, 1st Session, October 5, 1992.

25 Author interview with COL J. G. Cretella, March 16, 1993.

26 Letter, Hazo W. Carter, Jr. to MG James M. Lyle.

27 Letter, Curtis J. Thompkins to MG James M. Lyle.

28 Letter, Frank D. Brown to MG James M. Lyle.

29 Letter, Joe B. Wyatt, to MG James M. Lyle.

30 Author interview with LTC James Janele, May 26, 1995; Briefing Slides, ATCC-MO, 23 February 1994, subject: US Army Cadet Command Update Briefing.

31 Ibid.

32 (1) Author interview with LTC James Janele, June 23, 1995. (2) Author interview with MG James M. Lyle, January 15 and February 10, 1995.

33 Author interview with LTC James Janele, June 23, 1995.

34 (1) Letter, William H. Danforth, Chancellor, Washington University, to COL Judith R. Hanses, September 30, 1994. (2) Letter, William H. Danforth, to the Honorable Sara Lister, ASA (M&RA), August 10, 1994. (3)

35 (1) PROFS message, Mr. Dave Hickman, ATCC-MO, 27 July 1994, subject: Response to GAO Issues. (2) US General Accounting Officer, *Reserve Officers' Training Corps: Questions Relating to Organizational Restructuring*, GAO/NSIAD 96-56, B-270485, (Washington, D.C.: GAO, Febuary 6, 1996): 4. (3) Memorandum, William Perry, Deputy Secretary of Defense, For Undersecretaries of Defense, Assistant Secretaries of Defense, Comptroller, 10 December 1993, subject: Office of the Secretary of Defense (OSD) Manpower Reductions.

36 One brigade was shut down in FY 1995. Two others were closed in FY 1996. As a result of pressure exerted by Congress and the Pentagon, the ROTC unit contraction was halted at 270 units. Consequently, only three, instead of four as originally planned, brigade headquarters were closed.

37 The name "split camp option" was attached to this scheme because it entailed holding a combined Advanced/Basic Camp at both Bragg and Lewis, thus splitting Basic Camp between two posts.

38 Dr. Bert Huggins, ATCC-MO, Market Research Branch, Operations Division, 5-10 Closure of Second Region Headquarters, December 1995.

39 Ibid; Author interview with LTC James Janele, June 23, 1995.

40 GAO, *Reserve Officers' Training Corps:* 4-5.

41 Arthur T. Coumbe, "The Senior Army Reserve Officers' Training Corps (ROTC); Recent Developments and Current Prospects", Unpublished Manuscript, July 12, 2000; When Lyle asked to be extended in command for an additional year, Lister refused his request; Her critical remarks about the Marine Corps that she delivered in a public forum precipitated Lister's early departure from office.

42 Briefing Slide, ATCC-MO, "Officer Shortfall," 9 February 1999.

43 Wallace also soon embarked on what can best be described as a "de-Wagnerfication" of the headquarters building. Scores of old photographs depicting ROTC units engaged in various activities were taken down and replaced with standard army prints of civil war battles. The move was apparently made to symbolize the command's new focus (i.e., promoting the interests of the army rather than those of the ROTC) and to announce that a new regime was in charge. The ROTC argot that Wagner had introduced to emphasize the program's distinctiveness was another of Wallace's targets. He changed the name of the "Gold Strike Room" to the "conference room." Again, the change was symbolic.

44 See LTC Tim Kleppinger, *A Proposal for the Merger of the US Army Recruiting Command (USAREC) and the US Army Cadet Command: One Recruiting Organization - "More Than a Partnership"* (Carlisle, Pa.: USAWC, Strategy Research Project, February 10, 2001).

45 Letter, MG (Ret) Robert E. Wagner to Ms. Sara Lister, 10 January 1997.

46 Ibid.

47 (1) Message, HQDA TO CDR TRADOC and CDR Cadet Command, 22 July 1996, subject: Institutional Army Redesign Issue 41, Senior ROTC Staffing; (2) Author interview with Mr. Dennis Kennedy, MPRI.

48 (1) Interview with LTC C. Hardy, ATCC-O, Chief, Operations and Evaluation Directorate, 5 November 1999; (2) Briefing Slide, ATCC-O, "Alternative Staffing Test," 9 February 1999; (3) Charles A. Goldman, Bruce R. Orvis, Michael G. Mattock, and Dorothy A. Smith, *Staffing Army ROTC at Colleges and Universities: Alternatives for Reducing the Use of Active-Duty Soldiers* (Santa Monica, Ca.: RAND, 1999), pp.16-17; (4) Interview with MAJ C. Neely, ATCC-MO, ORSA, Operations and Evaluation Directorate, 16 November 1999; (5) Interview with Mr. Dennis Kennedy, MPRI, 22 May 2000; (6) Memorandum, ATCC-RR, MG James M. Lyle, Cdr, USACC, For CDR, TRADOC, 18 January 1996, subject: Alternative Staffing—SROTC units; (7) Memorandum For Record, DAEC-CA, LTC Fletcher, 24 January 1997, subject: RAND—Staffing Alternatives for SROTC Battalions.

49 Interview with Mr. Dennis Kennedy, MPRI, 3 November 1999.

50 Author interview with LTC Fred Barrell, III, ATCC-PM, Chief, Personnel Management Division, Personnel and Administration Directorate; Sydney F. Freedberg, Jr., "The New-Model Army," *National Journal*, June 3, 2000, p.1750.

51 Author interview with Colonel Kerry Parker, 10 August 2003.

52 Author interview with BG William Heilmann, Deputy Commanding General, US Army Cadet Command.

53 Memorandum of Understanding Between MG Thomas J. Plewes, Chief, Army Reserve and MG Stewart W. Wallace, CG, USACC, subject: Senior Reserve Officer [sic] Training Corps (SROTC), Alternative Staffing Demonstration; Memorandum For Record, ATCC-AR, COL Robert P. Morrow, ACS-USAR, 15 May 2000, subject: USAR Participation in SROTC Alternate Staffing.

54 The original plan called for the test to be conducted at 18 schools using the "two-replacement" scenario. But, due to various reasons, only nine additional institutions were added to the list of participants. Because the ROTC battalions at Georgia Tech and the University of Central Florida had used reservists to replace only one position, RAND declared their participation to be invalid for official evaluation. Consequently, the official replacement test included only 10 schools—the University of South Carolina and the nine newly-designated institutions. The test was scheduled to run from September 1998 through March 2001. Cadet Command suggested that the test be extended through school year 2001-2002 since only 10 schools participated in it.

55 The Army Reserve's seven institutional training divisions, it was agreed, would administer and manage the test, which eventually expanded to encompass 10 schools. This test was to run concurrently with the "replacement" test and was to be evaluated internally, that is, by Cadet Command and the Reserve Command.

56 Memorandum of Understanding Between MG Thomas J. Plewes, Chief, Army Reserve and MG Stewart W. Wallace, CG, USACC, subject: Senior Reserve Officer [sic] Training Corps (SROTC), Alternative Staffing Demonstration; Memorandum For Record, ATCC-AR, COL Robert P. Morrow, ACS-USAR, 15 May 2000, subject: USAR Participation in SROTC Alternate Staffing.

57 Ibid.

58 Ibid.

59 Author interview with COL Martha Oliver, Assistant Chief of Staff—USAR, USACC, July 21, 2005.

60 Fact Sheet, ATCC-RM, Ms. Francis Holloway, 12 August 1999, subject: Total Cadet Command Authorizations.

61 Interview with Ms. Jo Gay, ATCC-RM, 11 August 1999.

62 Memorandum, MG Stewart W. Wallace, Cdr, USACC, for ASA (M&RA), 12 January 1998, subject: SROTC Extension Center; Memorandum, COL John W. Corbett, COS, USACC, 3 March 2000, subject: Memorandum for Instruction (MOI) for Conversion of Extension Centers to Hosts.

63 US Army Cadet Command, *Annual Command History, 1 January—31 December 2003* (Fort Monroe, Va.: USACC, 2004):1-3.

64 Ibid.

65 Author interview with Colonel Kerry Parker, Chief of Staff, First ROTC Region, 10 August 2003.

66 Author interview with Colonel McGaughey, Third Brigade Commander, 10 May 2005.

67 Ibid.

68 Author interview with Brigadier General Gratton Sealock, Deputy Commander, US Army Cadet Command, 4 June 2005; Author interview with Colonel Dave Ahrens,

Director, Directorate of Leader Development, 14 April 2005; Author interview with Colonel Kathy Denis, 10th Brigade Commander, Western Region, US Army Cadet Command, April 4, 2005.

69 Author interview with Colonel Dan Patterson, Chief of Staff, Western Region, USACC, May 17, 2005.

70 Author interview with Brigadier General Gratton Sealock, Deputy Commander, US Army Cadet Command, 4 June 2005.

71 Author interview with Colonel Dan Patterson, Chief of Staff, Western Region, USACC, 17 May 2005; Author interview with Colonel James House, Director, Directorate of Leader Development, USACC, March 14, 2005.

72 US Army Integration Support Agency (USAFISA), March-May 1995, subject: Junior ROTC Manpower and Organizational Study; Memorandum, MG James M. Lyle, For Assistant Secretary of the Army , Manpower and Reserve Affairs, 2 October 1995, subject: Junior ROTC Manpower and Organizational Study; The staffs at the three region headquarters were cut from an average of 17 to 6 personnel. Within this reduced number, Cadet Command allotted the region commander 3 personnel in direct support of Junior ROTC instead of the single person associated with USAFISA's operating concept. This meets the region commander's command and control concerns, permits the coordination of training and camps at a lower, more effective level and support duties that remain after other staff changes are implemented. These changes have the net effect of reducing the region staffs to the level recommended by USAFISA; Fact Sheet, ATCC-HS, LTC Glenn M. Hayes, 19 March 1996, subject: JROTC Program Update.

73 Colonel John Corbett and Colonel Arthur T. Coumbe, "JROTC: Recent Trends and Developments," *Military Review* 54 (January-February 2001): 41.

74 US Army Cadet Command, *Opening Enrollment Report, Junior ROTC*, School Year 1997-1998 through School Year 2004-2005.

75 (1) National Defense Authorization Act of 2002, Section 537, "Repeal of Limitation on Number of Junior Reserve Officers' Training Corps Units," available from http://thomas.loc.gov/cgi-bin/query/c?c107/temp/^c107ABgG18/ accessed March 3, 2005. (2) Author interview with Ms. Carol Hetler, JROTC Directorate, USACC, July 10, 2005. (3) Anticipating expansion beyond the 3500 limit, Congress removed the legislative ceiling on Junior ROTC's institutional base with the passage of the National Defense Authorization Act (NDAA) of 2002. No funding accompanied this move, however. The expansion will stop at the 1645 mark.

76 For example, see Richard H. Kohn, "Out of Control: The Crisis in Civil-Military Relations," *The National Interest* (Spring, 1994): 3-17.

77 US Army Cadet Command, *Opening Enrollment Report, Junior ROTC*, School Year 1968-1969 and School Year 2004-2005.

78 US Army Cadet Command, *The Prospectus: A Curriculum Outline for Army JROTC/NDCC* (Fort Monroe, Va.: US Army Cadet Command, 1999), p.1; US Army Cadet

Command, *Program of Instruction* (Fort Monroe, Va.: US Army Cadet Command, 1999), p.1.

79 Fact Sheet, ATCC-HS, JROTC Directorate, US Army Cadet Command, 9 June 1998, subject: Popular Demand of Junior ROTC; Letter, MG Stewart W. Wallace to the Secretary of the Army, 27 October 1997, subject: Popular Demand for JROTC; Fact Sheet, ATCC-HS, JROTC Directorate, US Army Cadet Command, 9 June 1998, subject: Popular Demand of Junior ROTC; AUSA Institute of Land Warfare, Defense Report, "The Demand for Junior Reserve Officers' Training Corps in American High Schools," July 1998; Memorandum, ATCC-HS, MG Stewart W. Wallace, Commander, US Army Cadet Command For the Secretary of the Army, 27 October 1997; The Junior ROTC, program administrators were convinced, was one of the relatively few federal education programs that had "near universal support" at the community and neighborhood level. The enthusiastic endorsement of the program by school officials at existing host sites supposedly created a demand by their neighbors for new starts. The demand was further fueled by the normal population increase.

80 Information Paper, Subject: Army Retiree Council Issue 3-58-96, Additional Emphasis and Support for the JROTC Program.

81 Walt Barron, "Lawmakers Eye Junior ROTC as Cheap Way to Boost Recruiting," *CQ Monitor News*, February 17, 2001, p.1; *Junior Reserve Officers' Training Corps: Contributions to America's Communities*, p.4.

Transformation and the Officer Corps — The case of Japan and the United States Between the World Wars

William D. O'Neil[1]

Professional military education (PME)[2] plays a part in most officer careers, but its extent and career influence vary significantly between services. What are its impacts on military effectiveness and on wartime innovation and transformation? This paper and the project on which it is based seek to answer that question for one particular historical case, that of Japan and the United States between the world wars.

This case is a good one both because the necessary data are reasonably available for both sides and because the circumstances of the early phases of the Pacific War that followed are favorable for clear comparative analysis. The great majority of higher commanders and key staff officers on both sides during the first two years of the war were graduates of PME programs. And the performance of the military forces of the two nations differed in relatively distinct ways. This permits us to draw reasonably clear connections between what officers learned and how they performed in top command and staff positions.

PME and military doctrine in Japan and America: the background

The 19th century brought the rise of education for the professions. The Prussian Army was a pioneer military example. Thus the example of the contemporary success of Prussian arms on the battlefields of Northwestern Europe gave great impetus to the spread of professional military education (PME). The US services were among the first to take up this idea. In a way this seems strange, as both the Army and Navy were all but moribund as military forces in the decades following the Civil War. The Navy began to awaken in the 1880s, but for the Army the process had to await the difficult experiences of the Spanish-American War, where the Army's inefficiency was far more costly than the feeble efforts of the Spanish foe.

Yet the Army and Navy both entered World War I with a core of mid-grade officers who had received PME of a kind that was relatively strong by the standards of the day. This owed a good deal to the perception, within the Army especially, that American military needs were unique. It might be necessary at any time, the Army believed, for it to suddenly expand from a frontier and colonial constabulary to a great and modern army. This after all was precisely what it had experienced in the Civil War and to a lesser extent in the Mexican and Spanish-American Wars. It was essential that as many as possible of its small cadre of professional officers be equipped to carry general-officer stars in their mu-

sette bags. Since there was little opportunity for them to gain experience of war through peacetime exercises, PME was the Army's chosen instrument for preparation.

The case of the US Navy (USN) was somewhat different. Once a modern naval force was in the water, as it was in the first decade of the 20th century, naval officers had an opportunity to practice their profession on a scale denied to the peacetime Army. In effect, the Navy had more "hands-on" PME. Formal PME, however, continued to occupy an important role in a naval officer's development.[3]

American interest in economic expansion and the 19th century view that "trade follows the flag" prompted the nation to acquire a number of Pacific island territories, culminating in the wake of the Spanish-American War with the Philippines and Guam. The ultimate goal was to secure access to what was assumed to be a huge potential Chinese market for American goods. This led directly to increased interest in and concern about Japan.

Since the early 1600s Japan's post-feudal shogunate had pursued a policy of very tightly regulated and limited contact with foreign influences. By the 19th century, strains accumulated over more than two centuries of economic and social change had undermined the political bases of the shogunate, however, and concerns about the dangers posed by European and American penetration into the region helped to trigger its overthrow at the end of the 1860s. The rise to power of the new Meiji regime brought a sharp volte-face: rather than shunning almost all foreign influences Japan would now selectively embrace them in an effort to develop its national power.[4]

Most dramatically, Japan shed its traditional military structure, a feudal relic, turning instead to European models for an entirely new army and navy.[5] Both services quickly developed general staffs and staff colleges on an entirely up-to-date pattern. Many Europeans and Americans tended at first to smirk at the earnest efforts of the "little yellow men," but the smirks slipped when Japan decisively defeated much larger China in 1894–1895 and bested Russia in a hard-fought war a decade later.

American military thought was decisively influenced by the experience of participation in World War I, and especially so for the Army. The huge expansion between April 1917 and November 1918—from 200 thousand men to 3.6 million—found the Army short of nearly everything. So far as General John J. "Black Jack" Pershing was concerned, however, few shortages were so critical as the lack of qualified officers to fill staff positions in his American Expeditionary Force (AEF). Graduates of the General Service and Staff School at Leavenworth and Army War College (AWC) at Washington were highly valued, but there

were not nearly enough of them. Nor, in any case, were they trained in a tactical and operational doctrine that was at all adequate for the circumstances the Army found itself fighting in.

Borrowing from the British and (especially) French experiences, staff structures were re-shaped (including the establishment of the familiar G-1, G-2, etc., system) to meet the demands of combat of a scale and intensity without precedent in then-recent American experience. Instruction in staff doctrine was the focus of an intensive twelve-week course with the impressive title of General Staff College set up at Langres, France to produce staff officers. Its 537 graduates helped, but there were not enough of them soon enough to avert many costly problems. Parallel problems bedeviled the mobilization effort at home.[6] After the war the Army's leaders freely expressed their service's great and well-justified pride in its accomplishments, but in private they reflected as well on the cost of the lessons it had learned. The Army would not find itself so ill-prepared again, they resolved, so far as it was in their power to prevent.

The Navy's lessons had not been so painful as the Army's, but the service had plenty to think about in the wake of the war. It had seen its own share of a chaotic mobilization effort and its command arrangements had proven at least as unsatisfactory as those of the Army, bringing on a bitter and public post-war row. While it had done little fighting, it had been close enough to Britain's Royal Navy to gain considerably from Allied experience. Neither Army nor Navy was prepared to acknowledge any need for integrated joint command to meet the demands of modern war, but the need for closer coordination and cooperation was recognized.

Japan's involvement in World War I was very limited. The Imperial Japanese Army (IJA)[7] resisted sending troops to fight alongside the nation's allies, limiting itself to the dispatch of observers to Europe. Its sister service, the IJN, was more active, sending a destroyer squadron to the Mediterranean for antisubmarine duties. But in fact the IJN continued to show very little interest in antisubmarine warfare (ASW) and the officers who had been involved in ASW operations with the British exerted no particular influence. Like the USN, the IJN regarded the great battleship action between British and Germans at the Battle of Jutland (31 May–1 Jun 1916) as a prototype for the future.

For the Japanese—and especially the IJA—the point of reference for doctrine and PME was its own Russo-Japanese War of 1904–05 rather than the European conflict which had followed a decade later. In terms of the modes and intensity of tactical combat, the two conflicts were not too dissimilar. In 16 months of combat Japan lost more men killed in action than America did in any 20th century conflict outside of World War II—more than 60,000 battle deaths out of a population

of 47 million. Although dwarfed by European death rolls in World War I, this toll made a strong impression in Japan.

Doctrinal orientations: the armies

Military leaders in both countries interpreted the "lessons" of the conflicts in terms of their own views of war. The table below summarizes the lessons as seen by the two armies.[8]

	US Army	Japanese Army
Arm of Decision	• Mass maneuver infantry backed by strong combined-arms team	• All-elite maneuver light infantry
Tactical Essentials	• Rifleman marksmanship and firepower • Strong artillery, plus limited organic light artillery • Organic armor for assault	• Self-sacrificing determination and offensive spirit (*seishin*) • Ultimate troop hardening • Intensive tactical training for day-night offensive; emphasis on use of night and cover to negate enemy firepower • Small-unit leadership initiative • Close artillery support, including organic light artillery • Armor support as needed
Operational Essentials	• Clear and uniform doctrine at all levels • Operational maneuver with mass forces and logistics • Emphasis on principle of mass • Operations overseas and in remote areas • Operational intelligence, with emphasis on COMINT	• Clear and uniform doctrine at all levels • Light, swift, decisive operations, with minimal forces and logistics • Strong emphasis on convergent operations and economy of force • Coordinated Army-Navy landing operations
Force Bases	• Standing volunteer regular forces as cadre for wartime expansion by 10× or more • Regular and reserve forces heavy in officers for mobilization • Expansion via reserve mobilization plus wartime volunteers and/or draftees • Motivation – national patriotism and duty • Standardized "all-purpose" combined-arms formations • Industrial mobilization to expand/sustain matériel	• Two-year conscript forces with regular officer and NCO core in peacetime • Mobilize and fill out reserve units as necessary to meet needs • Raise and train new formations when necessary • Units formed on territorial basis • Motivation structure combining religious national patriotism, traditional authority structures, and local ties • Little TO&E standardization; force packages tailored for task
Operational Planning Concept	• Multi-echelon planning led and coordinated by ops sections • Opportunity for feedback from executing echelons • Planned margins and fallbacks for uncertainties	• Top-echelon planning under *very close direction of ops section* • Plan allows executing echelons flexibility in means, but *must* adhere to plan • Strongly success oriented
Issues	• *Bombardment aviation as arm of decision?*	
Areas of *Relative* Neglect	• *Control of air as crucial factor* • *Tropical-region operations* • *Armor tactics and operations* • *Night combat* • *Command relationships in joint operations*	• *Control of air as crucial factor* • *Tropical-region operations* • *Armor tactics and operations* • *Logistics* • *Intelligence*

While these principles were not all enunciated explicitly, and did not all emerge at once, they formed the main substance of PME throughout the period between the wars in the respective armies. Although both armies emphasized maneuver infantry, their approaches diverged and contrasted sharply in most respects across the board.

Naval doctrines and PME programs

For the navies it is difficult to encompass doctrinal views quite so clearly and succinctly. Like all navies since the middle of the 19th century onward they were very conscious of an important and even dominant role of technology and technological change as an influence on naval operations. In neither navy was there a uniform and unchanging consensus regarding the nature and significance of changes in technological factors. In the armies, officers who advocated divergent views generally were isolated and marginal. But some of the USN's highest-ranking and most prestigious leaders vigorously questioned prevailing views from the early 1920s onward. In the IJN the internal debate emerged somewhat later and less publicly but was still quite vigorous.

In both navies the mainstream view emphasized the battle line as the force of decision. It was universally recognized, however, that the battleship had been under threat from torpedo craft for decades. In addition to technical measures to harden battleships against torpedo damage (particularly in the USN) both navies had developed a multilayered defense concept against surface and, more recently, subsurface torpedo craft. The IJN, however, counted on overwhelming the USN's torpedo defenses in order to attrite the enemy's battle line before the climactic battleship duel. This was to be accomplished by four main means:[9]

- Large, long-range submarines would intercept the US fleet as it sortied and make repeated attacks en route to the Western Pacific, using high surfaced speed to sprint ahead after each attack.
- Long-ranged land-based torpedo bombers would attack en masse as the enemy came in range of their island bases.
- Heavy torpedo flotillas would deliver a massive attack at night prior to the main engagement, relying on very intensive training in night operations.
- As the main fleets closed, flotilla forces with long-range torpedoes would attack in concert with carrier-based torpedo bombers.

The USN had a very different view. It believed that defensive measures could restrict torpedo attacks to circumstances in which hit rates would be quite low. Night engagements, in particular, were to be avoided altogether. The Americans

joined their Japanese counterparts in emphasizing long-range daylight gunnery, but differed in placing exclusive reliance in it.[10] US naval officers were unaware of the advanced technical capabilities of Japanese torpedoes, and unreceptive to intelligence suggesting it, but it is questionable whether such knowledge would have caused them to alter their doctrinal views.[11]

Just as was the case with land forces, those naval officers who became aviators early developed enthusiasm for aviation's military potential that far outstripped the vision of their surface colleagues as well as the immediately foreseeable technical possibilities. Again like their army colleagues, however, the majority of surface naval officers quickly grasped the possibilities offered by aircraft for reconnaissance and observation. In particular it was evident that adjustment of fires on the basis of airborne spotting could increase the effectiveness of the long-range gun action favored by existing doctrine.

In the USN, a group of quite senior officers developed considerable enthusiasm for naval aviation by the late 1920s. Corresponding developments in the IJN took somewhat longer to materialize and did not spread quite so widely, but in both services officers who saw air forces as prominent among the decisive factors in naval warfare held many key positions by the outbreak of war in 1941. The aircraft carrier was the principal object of their enthusiasm, but not the only one. The IJN placed great stress on the role of long-ranged land-based antiship strike aircraft, intending to base them on Central Pacific islands as a primary element of defense against American thrusts to the westward. The USN was denied such options not only by geography but by political factors stemming from bureaucratic clashes with Army aviators.[12] Up through the later 1930s the leaders of US naval aviation saw great promise in long-ranged rigid airships for wide-area surveillance as well as flying boats for both surveillance and antiship attack. By war's outbreak, however, the consensus was that airships no longer held any material promise and that flying boats were valuable only for surveillance, a role for which the IJN also employed them – albeit on a far smaller scale.

A final and pivotal area of uncertainty lay in the specifics of weapons effectiveness. By the late 1930s, both navies had concluded that horizontal free-fall bombing was relatively unattractive for antiship attack due to low hit rates. Aviators anticipated high hit rates from both dive bombers and aerial torpedoes, with low losses to delivery aircraft. Many surface officers, however, believed that intense and accurate antiaircraft fire would prevent effective attacks.

Both navies saw submarines as largely ancillary to fleet action. The USN believed that submarines would be quite vulnerable both to air and surface ASW forces and inculcated a cautious tactical doctrine to avoid high losses.

A Pacific clash between Japan and the United States had been widely foreseen and explicitly forecast since America's acquisition of the Philippines and Japan's victory over Imperial Russia at the beginning of the 20th century.[13] Both navies and both armies acknowledged a Pacific war as a leading threat scenario. For the IJA, however, Japan's destiny lay on the Asian Continent; America was only a distracting nuisance. So far as it was concerned, the United States was the IJN's problem, and it relied on the IJN to take care of it (aside from the acknowledged need for army troops to conquer the Philippines in order to deny it to the US fleet). That was, after all, why the IJA put up with the Navy's expense and airs.

The US Army garrisoned the Philippines with several thousand American troops (plus several thousand more Filipinos enlisted as Philippine Scouts) both for colonial security and as a symbol of American sovereignty.[14] This was a source of strategic irritation and concern inasmuch as it was apparent that the garrison was not nearly strong enough to stand for long against a determined Japanese attack. The nearest American base was in Hawaii, 4,000 miles away, and the Japanese occupied a great many Central Pacific islands between it and the Philippines. Generations of planners agonized over how the Philippines garrison might hold out until relief could be pushed through, with most coming to the conclusion that there was no real solution to the problem.[15] As there was political support neither for strengthening the garrison nor withdrawing it, the Army hoped for the best and turned its attention to places other than the Pacific.

The USN, in the meantime, continued to probe for a way to get across the Pacific soon enough to relieve the garrison and ensure continued access to Philippine bases. A Pacific war was overwhelmingly the dominant focus for scenarios studied by students at the Naval War College (NWC) in Newport, Rhode Island.[16] And so it was also for the scenarios studied by Japanese naval officers at the Navy Staff College. Making intensive use of war games, both came to strikingly parallel overall concepts. The USN would advance across the Central Pacific to intervene against Japan, the IJN would seek to block it, and the culmination would come in a great clash of battleships, somewhere in the Western Pacific. Conscious of their inferiority in numbers if not quality of ships, Japanese officers worried about being overwhelmed. At the same time American navy men were concerned that the toll exacted by a long transit through enemy-dominated waters would leave them at a disadvantage in the final exchange. Both spent endless hours seeking ways to gain advantage.

In short, the navies saw a prospective Pacific war as a duel, while the armies envisioned themselves as seconds.

Doctrinal orientations: the navies

We can summarize the navy views along the following lines:

	US Navy	Japanese Navy
Arm of Decision	• The battle line, supported and screened by strong light surface forces and carrier- and sea-based air forces	• The battle line, supported by a multi-layered defense to exact preliminary attrition
Tactical Essentials	• Emphasis on striking in mass, particularly in air • Aggressive and comprehensive air and surface search to locate enemy forces first • First strike against enemy carriers • Long-range surface daylight gunnery • Torpedo flotillas as a credible threat • Avoidance of night action	• Self-sacrificing determination and offensive spirit (*seishin*) • Heavy reliance on individual skill and qualitatively superior matériel • First strike against enemy carriers • Long-range surface daylight gunnery • Torpedo flotillas as a major striking force • Deliberate employment of night action
Operational Essentials	• Clear and uniform doctrine at all levels • Emphasis on concentration, principle of the objective, and mass • Operational intelligence, with emphasis on COMINT	• Clear and uniform doctrine at all levels • Strong emphasis on convergent operations and economy of force • Coordinated Army-Navy landing operations
Operational Planning Concept	• Multi-echelon planning • Opportunity for feedback from executing echelons • Planned margins and fallbacks for uncertainties	• Top-echelon planning under *very close direction of ops section* • Plan allows executing echelons flexibility in means, but *must* adhere to plan • Strongly success oriented
Issues	• *Carrier-based aviation as arm of decision?*	• *Carrier-based aviation as arm of decision?*
Areas of *Relative* Neglect	• *Night combat* • *Command relationships in joint operations* • *Submarine tactics* • *Antiaircraft defense* • *Shore bombardment in support of amphibious assaults* • *Ship-to-shore movement in amphibious assault*	• *Logistics* • *Submarine tactics* • *Antiaircraft defense* • *Intelligence*

Marines and air forces

Both navies had their own ground forces. The IJN had no marine corps in the American sense but did have Special Naval Landing Forces (SNLF), which were navy-manned.[17] They were primarily a light infantry force almost entirely lacking in supporting arms. Their mission was to seize and defend advanced bases as well as acting as reconnaissance elements in landing operations conducted by the army. While they generally employed army weapons, equipment, and tactical doctrines, they strove for elite status and had a reputation for ferocity and tenacity in fighting. There was no separate PME program for SNLF officers.

The US Marine Corps (USMC) was not yet officially recognized as a fully separate and equal armed service but had always been separately organized and not a part of the navy. It had filled a variety of roles throughout its history, but

by the 1930s had come to see its principal mission as seizure and defense of the island bases the USN would need to prosecute a war across the Pacific. Between the world wars it devoted a great deal of attention to the specialized (and largely unprecedented) techniques of amphibious assault against fortified islands and beaches. The USMC incorporated its own supporting arms, to a limited degree, including an air force.[18]

The US Army Air Corps (USAAC) was at this time a somewhat distant and reluctant branch of the army. In common with military and naval aviators elsewhere, its officers had tense and sometimes conflictual relations with those who lacked their enthusiasm for the air weapon. By the 1930s the USAAC's senior leadership had strongly embraced a doctrine which identified high-altitude daylight precision bombing of the critical nodes of an enemy's industrial infrastructure network as the unique key to immediate and decisive victory by knocking out his capacity to wage industrial war. Because such strategic bombing was held to be swift and final in its effects there was little need for other branches of aviation, let alone ground or sea forces. USAAC leaders endeavored to walk a line between promotion of this bright vision of quick, certain, and relatively inexpensive victory and maintaining cooperative relations with yet-unconvinced comrades in arms.[19]

PME programs and institutions

Army PME

In both armies, those who completed commissioning programs generally went on to a specialized branch-oriented school within their first few years of commissioned service. The pattern of these schools varied but in the main they taught the fundamentals of branch-related tactics and administration to qualify officers for company/battery/troop-level command. In most cases there was an additional tier of branch schools at a higher level intended to qualify officers for command at the level of the battalion/squadron and regimental levels. In the US Army, officers normally completed this second-tier branch school before entering combined-arms command and staff PME schools or other PME at equivalent level. In the Japanese Army, however, those selected for staff college attendance normally did not take advanced branch courses.[20]

The main institutions of combined-arms staff and command PME in the two armies were as follows:[21]

Service	US Army		IJA
Institution	Command & General Staff School (C&GSS)	Army War College (AWC)	Army Staff College (ASC)
Students			
Typical age	35-40	40-50	25-35
Typical grade	CPT-MAJ	LTC-COL	CPT-MAJ
Selection process	Branch chief recommended	Branch chief recommended	Command (regt. & divn.) selection + written exam + multi-part oral exams.
Selectivity	Broad – all officers thought able to master general staff duties	Intended to be quite selective, but somewhat uneven in practice.	Intense competition for slots. Avg <6% selection opportunity.
Background	Assumed collegiate level, regardless of actual degree.	C&GS grads with high class standings – but some exceptions.	All were grads of IJA Military Academy – sub-collegiate.
Other service attendance	USMC	USMC, USN	None
Career influence	Important	Important	Crucial
Course			
Duration (yrs)	Varied: 1 or 2	1	3
Main theme	Qualification as general staff officers for war.	Qualification for War Dept. General Staff, & for high command in war.	Qualification for IJA General Staff, general officer rank, & for high command in war.
Subjects of study			
Main subjects	Combined-arms tactics and operations; General staff functions and doctrine, all aspects.	High command general staff functions and issues.	Spiritual development, military strategy and tactics, military history, general collegiate.
Secondary subjects		Joint operations, national policy, mobilization planning.	
Little or no coverage	Technology & innovation; air operations; joint operations	Technology & innovation; air operations	Technology & innovation; logistics; air operations; joint operations

All of these institutions were rigorous, at least for those motivated to do well. In the US Army program, the C&GSS (the direct ancestor of today's C&GSC) functioned somewhat like a civilian professional school, along the lines of a law school or graduate business school. That is to say that it concentrated on inculcating a given body of knowledge and the methods of its application rather than fostering intellectual development and inquiry, in the spirit of an academic graduate school. The USAWC, attended generally by the higher-ranking C&GSS graduates, was somewhat more like an academic program. Both, of course, served to acculturate the student to the command and general staff culture of the Army, whose elements were outlined earlier in this paper. The graduates of these programs constituted an elite within the Army, but not a particularly narrow or

self-conscious one. Their promotion prospects were better and their spectrum of potential assignments were broader than those of other army officers, but there was considerable overlap in these respects between graduates and non-graduates. In the circumstances of the pre-war army, even top graduates were likely to finish their careers in field grades. To a large extent, their elite status was established and known before their assignment to the courses, particularly the AWC.

Matters were quite different in the Imperial Japanese Army, where selection for Staff College[22] attendance came quite early in the officer's career and graduates constituted a very narrow and conscious elite whose career patterns and promotion prospects were sharply different from those of regimental officers.

An additional PME institution had been established by the US Army following World War I, reflecting one of the major lessons of the war. This was the Army Industrial College (AIC), located in Washington, D. C. The AIC was intended to prepare Army officers to plan and execute massive procurement programs upon mobilization for war – something which they had no more opportunity to practice in peace than they did large warlike operations. Considerable numbers of USN and USMC officers also attended the AIC.[23]

The partial estrangement between the USAAC and its parent service showed in PME. Treatment of air operations at the C&GSS and AWC was very limited and incomplete. Air Corps officers at first felt distinctly out of place at these institutions and perceived little professional benefit. One reason is simply that these officers generally did not expect, or aspire, to gain command or top staff assignments with large combined-arms formations, as most other Army officers did. For many AAC officers, the service's own branch school, the Air Corps Tactical School (ACTS) at Maxwell Field, Alabama, provided a more desirable PME opportunity. Overall it appears that the senior Air Corps officers in World War II may have been somewhat less likely to have attended the senior PME institutions than their non-flying Army contemporaries.[24]

Navy PME

In the navies, early post-commissioning PME tended to be technical in nature. Both had established courses to train officers as aviators, submariners, gunnery officers, and torpedo officers. More traditionally seamanlike skills generally were learned aboard ship. In the US Navy, after a few years of service, unrestricted line officers might go to an engineering school for graduate study of such subjects as ordnance, electrical, or aeronautical engineering, while not becoming specialists. In Japan, where candidates for line commissions did not receive undergraduate engineering education, such matters were left to specialists and

line officers generally had quite limited knowledge of the engineering principles of naval equipment.

The US Naval War College (NWC) and the Japanese Naval Staff College (NSC)[25] were the predominant institutions of broad military-oriented PME for their respective services. Each offered both upper and lower courses, but the lower courses at the JNSC were basic technical courses for junior officers. The following table summarizes the principal PME courses:[26]

Service	US Navy		IJN
Institution	Naval War College (NWC)		Navy Staff College (NSC)
Course	Junior	Senior	"A" or Main
Students			
Typical age	35-40	40-50	29-35
Typical grade	LT-LCDR	CDR-RADM	LT-LCDR
Selection process	Detailed by BuNav[27]		Special selection board
Selectivity	Limited selectivity		Highly selective
Background	Naval academy grads		All were grads of IJA Naval Academy
Other service attendance		USMC, Army	None
Career influence	Modest	Important	Very important
Course			
Duration (yrs)	1	1	2
Main theme	Command and staff assignments in fleet; preparation for Senior Course.	Higher command and staff assignments in fleet.	Qualification for IJN General Staff, major sea command, and flag rank.
Subjects of Study			
- Main subjects	Naval tactical warfare doctrine.	Naval operational warfare doctrine.	Naval strategic and tactical doctrine, spiritual development.
- Secondary subjects		Joint operations, naval strategy, national policy, international law, afloat logistics.	Land war, Army-Navy cooperation, technology, military & naval history, international law.
- Little or no coverage	Logistics, innovation.	Shore support functions, innovation.	Shore support, logistics, innovation.

The US Naval War College also offered an Advanced Course for senior officers, somewhat along the lines of today's Senior Study Group. The first Advanced Course did not meet until 1934, by which time fleet expansion was putting pressure on officer assignments. Thus the total output of the course up to the beginning of World War II mobilization was small.

The NWC Junior Course was something of an oddity. The College had originally envisioned it as a stepping stone to the Senior Course, somewhat in the pattern of the C&GSS–AWC sequence, but Bureau of Navigation detailing practices never reflected this. Moreover, there was no very clear distinction between the two courses. Students of both attended many of the same lectures by outside experts and participated in the same war games.

NWC Senior Course attendance neither consistently reflected nor bestowed elite status. Some of those detailed to attend the course were in fact at the end of their careers and retired soon after completion.[28] Graduation opened no particular doors. In practice, however, all the men who served in senior line posts in the Navy were NWC graduates.

Selection for the Japanese NSC was more consistently rigorous than that for the USNWC and came earlier in an officer's career. However, it was neither so rigorous nor so early as selection for the Japanese Army's equivalent, and the elite of NSC graduates was not as narrow or exclusive as that of ASC graduates. It was very rare for an officer to gain assignment to the IJN General Staff, its central governing institution, without having graduated from the NSC, and unusual for non-graduates to be assigned to the Navy Ministry. Non-graduates could sometimes gain flag rank, however, and some rose to high levels.

It will be noted that each of the American war colleges had students of other services. In fact, several of the men who rose to high command in World War II attended the war college of the other service in addition to that of their own.[29] Such cross attendance was unknown in Japan.

Also apparent is that Marines attended all of the principal American PME institutions. In addition, the USMC had its own equivalent of branch schools, including an officer Basic Course and Field Officers Course. Finally, the service regularly sent students to the premiere French PME institution, L'Ecole Supérieure de Guerre. Marine Corps in-house PME institutions played a prominent role in developing doctrine for amphibious assault.[30]

Cultures and effectiveness

Having now sketched all of the major PME institutions of both Japan and the United States as they existed between the world wars and the doctrinal and cultural foundations they were built upon, it is helpful here to reflect upon and summarize some major points which might be expected to affect military performance in war.

Each service on both sides had its own command and staff culture, but there were broad national differences. As has often been remarked, usually disparag-

ingly, the American services tended to have rather bureaucratized cultures. That is, while the commander held overall authority and responsibility, the work of planning, and oversight was parceled out among specialized staff sections. Moreover, lower echelons were deliberately given considerable sway over subsidiary plans and their execution. This tended to undermine the potential for commanding exercise of brilliant central vision, the coup de maître of an Alexander or Napoleon. There were a few such in World War II, but on the whole the American forte was the comprehensive plan combined with the flexibility to quickly adjust to unexpected circumstances and opportunities.

This was reflected in the structure of American command. Every echelon, right down to the battalion and equivalent level, had its own staff. A division, or force of equivalent level, generally had officers with staff PME backgrounds in one or two key slots, as well as in command. At higher echelons, staff leadership positions were increasingly filled by men with staff training and experience. These higher-echelon PME-graduate staff officers generally were experienced officers in middle age with broad backgrounds, who often were little younger than the commander they served. The more successful of them frequently went on to commands of their own, and even those who did not, generally were solid and competent performers (at least after the initial shake-out period, when the sheep were separated from the goats), who sought and exercised significant responsibility.

The American system of PME matched and upheld these cultural norms. Officers selected for their first course of command/staff PME generally had at least fifteen years of commissioned service, and scarcely any had as few as ten. The services – and particularly so the Army – endeavored to give staff PME to virtually every officer regarded as qualified, and qualification was judged on performance in service rather than relying on examinations. The result was a command/staff cadre that was mature, broadly experienced, diverse, and distinguished by performance in service rather than by abstract intellect.

The Japanese system was markedly different, reflecting a very different culture of command. Naval officers selected for Staff College attendance rarely had more than twelve years of commissioned service and most had no more than ten. For army officers the experience level was lower still—usually no more than six years of commissioned service and rarely as much as ten.[31] Intellectual qualities, as measured by written and/or oral examinations, were prominent among the criteria for selection, particularly in the Army. Graduates became general staff officers and thereafter pursued a career track quite distinct from that of other line officers, with excellent chances of reaching high rank.[32]

In the Japanese Army, almost to the end of the war, command at the division level and above was almost exclusively reserved for general staff officers.[33] So too were all important operational staff slots. No one outside this circle had any role in operational planning; they were simply to execute the plans as given—or die in the attempt. Staffs in general were small and line battalions did not even have staffs.[34] The circle of staff officers was not quite so tightly drawn in the Japanese Navy, but the dominance of the central plan was no less absolute.

In Japan, the profession of arms conferred high social status and places at the service academies were much sought after. Thus the man who received the badge of a general staff officer in his early 30s had joined a narrow elite within a narrow elite, having proven himself by rigorous examination and training. These "staff gods" naturally were not particularly inclined to modesty about their own abilities or accomplishments. As part of the normal pattern of Japanese social bonds, they tended to align themselves in cliques bound by loyalty to senior figures, often a man from the same region.[35] The cliques were rivalrous, often bitterly so. While these groups were not really bound by ideas, each generally did espouse a particular program of action.

Placing all of the powers of planning and ultimate decision in the hands of such men could have volatile and unpredictable results. If the commander were a strongly dominant and determined figure, he could impel the staff to translate his vision into decisive action. Admiral Isoroku Yamamoto is the example best known in the West, but there were others of this stripe, such as General Tomoyuki Yamashita, the "Tiger of Malaya."

In some cases, commanders in effect delegated conception to a trusted chief of staff or other key officer, while retaining overall control of the situation. Genuinely weak characters rarely rose to the top in Japan, but as one went up the chain of command, with larger and more diverse organizations and larger and more diverse staff groups, it became progressively more challenging to impose order and unity of purpose. With a staff split into strongly-bonded vertical cliques, all competing for power, such situations could easily degenerate into paralyzing disunity.

In all the services of both nations the combat arms commanded greater interest and prestige among professional military men than did the logistical and support services.[36] Yet their treatment in PME differed sharply between the two nations – largely neglected in Japan, but dealt with seriously in the United States. This appears to tie into the trend to exalt the warrior spirit in Japan, both as a reaction against social modernization and as a means of motivating military personnel to extraordinary dedication and will to victory.[37] Embedded within the much more bureaucratized, mass culture of the United States, the American armed forces

were better able to call upon rational analysis to give importance to supporting services such as logistics and intelligence, and bureaucratic professionalism to assert their prestige. Japanese officers vehemently asserted that service as an officer was a calling and explicitly denied that it had anything to do with bureaucratic professionalism or mass-society careerism.[38] American officers, by contrast, increasingly embraced both the "profession" and "career" labels.

Effectiveness: measuring inputs and outputs

Japan, of course, was markedly less well endowed for industrialized warfare than the United States. In the late 1930s, the economy of Japan and its empire was no more than 15% as large as that of the United States.[39] However, through the late 1930s American spending for military purposes was small relative to the size of the economy, whereas Japan spent relatively heavily for military purposes. The result was that the resources devoted by the Japanese to defense in this era were not significantly inferior to those put to such purposes by the Americans. Indeed, it appears that Japanese investment in arms and equipment was significantly greater.[40] Thus on the eve or war, Japan had an arsenal of arms and equipment that was numerically roughly equivalent to that of the United States and in some respects more modern.

Nevertheless, the disparity between the two nations in economic and industrial potential clearly implied that the United States would out-produce Japan once it had mobilized. Thus in this sense Japan's emphasis on light, skills-intensive forces made maximum use of comparative advantage. Equally sensible was its goal of swift, decisive operations and its desire to transform the terms of conflict from material vs. material, to spirit vs. spirit.

The outbreak of the European War in 1939 and the German victories of 1940, which the Japanese saw as a great opportunity, in fact worked against them in a very significant way, inasmuch as British and French orders (and advance payments) did a great deal to stimulate expansion of American industrial capacity for armaments production, while the growing perception of a Nazi German threat prompted the beginnings of America's own rearmament.[41]

Nevertheless, it was not until the latter part of 1943 that significant quantities of newly-produced major systems began to be available to American forces for action in the Pacific. Up to that point, the cumulative force inputs to both sides in the Pacific War had been roughly equivalent, overall. That is, the United States had equalized its initial disparity in force inputs, but had gotten no further up to that time.

Had the general level of operational performance been equivalent, we would suppose that the losses sustained by each side also would have been approxi-

mately equivalent. In fact, however, Japanese losses had been considerably more severe. For this reason, Japanese forces were inferior to American forces in strength in some critical categories already by mid 1943, before the United States began to pull ahead in the rate at which forces were augmented and replenished.

Combat air forces and air superiority

Nothing was more critical in the Pacific War than attaining and maintaining superiority in the air. Air superiority could not guarantee victory, but loss of it would put victory out of reach.

Immediately prior to the outbreak of war, combat aircraft (including reconnaissance and patrol aircraft, as well as bombers and fighters) assigned to Japanese tactical units and pools in the Pacific numbered about 2,675, (about 1,565 IJN and 1,110 IJA).[42] The corresponding total for the U. S. Army Air Forces (USAAF)[43] in the Pacific was 596.[44] For the USN and USMC the Pacific area total was 870.[45] The US aircraft totals included a large proportion of obsolescent and even outright obsolete models, and even the up-to-date models were generally inferior to their Japanese opponents except for heavy bomber types.

Many of the Japanese aircraft were initially deployed against non-American targets.[46] But this changed very quickly, and well in excess of 90% of all Japanese combat losses in the Pacific War fell to American forces.[47] As a result, the great majority of aircraft produced by Japan had to go to forces fighting the Americans.

As is well known, the US aircraft industry very early outstripped Japan's in production rate.[48] In the first two years of the war, however, a significant portion of American production went to Allies. Only a fraction of the remainder went to the Pacific. Even the USN sent only a little more than half of its share of combat aircraft production to the Pacific, with the remainder divided between training and the war against Nazi Germany and its U-boat force.[49] The rate of American deliveries to the Pacific only slightly exceeded Japan's up through the end of 1943, just about enough to close the large gap between forces in place at the beginning; a little less than 17,000 for Japan (roughly 7,000 IJA and 9,700 IJN) to a little under 18,000 for the United States (6,813 USAAF plus nearly 11,000 USN, with USMC aircraft coming from USN production).[50] Thus it was not until the end of 1943 that the cumulative American matériel inputs of combat aircraft to the Pacific caught up with those of Japan.

The initial Japanese onslaught essentially wiped out USAAF and allied air strength in the Pacific with relatively light losses to Japanese forces. USN/USMC air forces were only moderately eroded, but initially were much weaker than those of Japan in any event. The Japanese Navy lost several dozen aircraft in its

initial offensives, nearly 100 at the Battle of the Coral Sea, and more than 250 at the Battle of Midway, but that still did not equalize the air force ratio. Moreover, Japanese losses of highly-trained aircrew were fairly light up through mid 1942.[51]

After June 1942, however, the locus of action shifted to the South and Equatorial Pacific. For more than a year, the focus of everything was Rabaul, on the northeast end of the island of New Britain, a key strategic point seized by Japan early in the war. It is about 2,600 nautical miles (nmi) from major Japanese ports, and the route to it lay well inside Japan's established defensive perimeter. The nearest allied base was more than 400 nmi away, on the southern shore of New Guinea's east-pointing tail, but there were no very secure bases within 1,000 nmi. Moreover, the region lies 5,000 nmi from US West Coast ports, and more than 9,000 nmi from the Gulf and East Coast ports that gave access to the country's main industrial resources. In a day when few cargo ships could traverse 1,000 nmi in less than four days and long-haul cargo aircraft scarcely existed, these distances were immense.

The environmental stresses in the region were exceptionally severe. There was virtually no modern infrastructure of any kind, and most of the region's scattered population was only just removed (if at all) from a purely Neolithic style of life. The exceptionally hot, moist, sun-drenched climate is very stressful both for personnel and equipment, and neither side had the technical ability to create climate-controlled environments for health care, accommodation, maintenance, or storage. Many areas harbor tropical disease pathogens and vectors, and the slightest lapse of public health measures immediately brought devastating outbreaks of disease. Moreover, the generally rugged, geologically young terrain covered with frequently poorly-drained tropical soils and dense tropical vegetation presented great obstacles to overland movement and to construction of facilities.[52]

High intensity air operations across the long distances of the theater imposed tremendous stresses on personnel and materiel alike. Neither side was at all prepared for these challenges. Shipping was in very short supply on both sides and severely constrained support. Many needs had to be met by local improvisation.

The Japanese focused relentlessly on offensive operations, regardless of logistical and support considerations. Even fairly simple problems got short shrift if they did not immediately effect offensive operations. While the Americans and their Australian and New Zealand allies were very concerned to keep pressure on the enemy, they pursued a more balanced operational approach. If the Japanese method may be summed up as attack, attack, attack! that of the Americans was more like attack, build, attack.

The stresses told most swiftly on the complex and delicate structure of air power. No detail of its health was beneath American attention. Many problems

could not be resolved with the resources available, but none was forgotten. The Japanese operations staffs were consumed with operations and there was no one with the ability and authority to address support problems. Jewel-like airplanes and engines decayed into corroded hulks. Dauntless, exquisitely trained and skilled men were reduced to malnourished, disease-racked husks.

Aware that the environment was in many ways the most difficult enemy and that logistical support was tenuous, the Americans made interdiction of Japanese logistics a priority only just below that of offensive counter-air attack. The Japanese made little effort to interdict American lines of communication.

Aircraft Quality and Its Influence

In evaluating loss data it is necessary to consider the impact of changes in the quality of aircraft materiel. Throughout this period the main air forces opposing the US in the Pacific were those of the IJN, whose fighters were almost all various series of the Zero.[53] Initially, the principal fighter models flown by the USAAF were various series of the Curtiss P-40 and Bell P-39, while the USN and USMC generally flew various series of the Grumman F4F.[54] In general, each of these early American fighters were somewhat deficient in tactical performance compared to the Zero. The deficiencies were not decisive but did put the Americans at some overall tactical disadvantage, all else equal (which it seldom was in actual combat). In addition, the Zero had a significant advantage in operating radius. The overall effect of this was to limit the American fighters largely to defensive counterair (DCA) operations, while allowing the Japanese more scope for offensive counterair (OCA).[55]

In Jun 1942 USAAF forces in the Pacific began to receive small numbers of Lockheed P-38 fighters.[56] By Sep 1942 there were 105, representing ten percent of USAAF fighter forces in theater. By mid 1943 USAAF forces in the Pacific had begun to receive Republic P-47 and North American P-51 fighters as well.[57] By Jun 1943 these three more modern models accounted for twenty percent of USAAF fighters arrayed against Japan, while by Dec the proportion had risen almost to fifty percent.[58] Similarly, by the early months of 1943 Vought F4U fighters were beginning to replace Grumman F4Fs in land-based action, while the new aircraft carriers reaching the Pacific from mid 1943 onward were all equipped with Grumman F6Fs.[59]

These newer fighters held margins of tactical performance over the Zero that were broadly comparable to those that the Zero held over the earlier US fighters.[60] That is to say that all else equal, the pilot in one of these aircraft would have a small margin of tactical advantage. It is easy to overstate the significance of these margins, however. For the most part the speed margins were no greater

than ten percent, for instance. Differences in tactical circumstances, and in particular in pilot skill, could easily be far more significant. Perceptions of the significance of the newer aircraft are probably considerably exaggerated by the concurrent changes in the balance of pilot skills, owing largely to the established disparities in operational as well as combat loss rates together with differences in pilot production and in the efforts made to preserve pilots.

In any event, air-to-air combat was only one source of aircraft losses, and by no means a dominant one. Allied forces claimed a total of more than 31,000 air-to-air kills against the Japanese.[61] However, the most comprehensive assessment of Japanese air forces estimates that combat losses from all causes totaled only about 20,000.[62] Inasmuch as antiaircraft gunners claimed many thousands more kills, and claims of kills on the ground by air attack by US forces alone total 8,903,[63] it is apparent that claims provide only an very rough guide to actual destruction. Moreover, there is reason to weight claims of aircraft destroyed on the ground especially heavily, since they were normally verified by post-strike imagery. Thus it seems that actual air-to-air kills can have numbered no more than about 10,000, less than a quarter of the 44,000 aircraft Japan is estimated to have lost from all causes other than training accidents.

Of this quarter, what proportion can be credited to improvements wrought by the introduction of the second generation of US fighters in 1943? To begin with we note that in general, about one third of US air-to-air kill claims were made by defending gunners aboard bomber aircraft, suggesting that US fighter air-to-air kills accounted for no more than one-fifth to one-sixth of total Japanese non-training losses. The USN tabulates loss exchange-ratio figures for various model aircraft for the 1944-45 period.[64] From these it would appear that the second-generation F6F and F4U enjoyed exchange ratios of 22.0:1 and 21.3:1, respectively. However, the first-generation F4F[65] was still employed from escort carriers in this period and claimed an exchange ratio of 44.9:1! If we restrict our attention to loss exchange ratios against the Zero alone in this period we find ratios of 13.3:1 for the F6F, 12.1:1 for the F4U, and 43.5:1 for the F4F. From these figures it certainly seems very difficult to make a case that the introduction of the second-generation fighters, per se, can have had a truly major influence in increasing Japanese losses. Most of what influence they did have probably was due to their greater ability to force an engagement.

Less remarked, but probably of the same order of importance as second-generation fighters, was the US superiority in air warning, which allowed both interceptors and antiaircraft artillery to be more effective in opposing Japanese air raids. This was in part due to the technological factor of superior American radar,

but the operational factors of superior communications intelligence and a better observer network also were significant.

Operational disaster

The statistics tell a story more dramatic and meaningful than most tales of combat. By the final day of 1943, 10,209 first-line American combat aircraft opposed approximately 4,050 Japanese aircraft.[66] The Americans had lost approximately 45% of the aircraft they had sent to fight against Japan, while the Japanese had lost nearly 80%. Before America won the war of aircraft production for the Pacific, Japan had already lost the war of aircraft attrition.

The difficulties of precise enumeration notwithstanding, we can say with some confidence that the major causes for this disparity had to do with operational factors. As just shown, the factor which is most usually cited as having made the great difference—that of the introduction of second-generation US fighters—can have had, at most, only limited influence. Other factors each of at least equal individual importance included US/allied superiorities in:

- Protection of aircraft maintenance and logistical structures.
- Protection of the health of aircrew and ground crew.
- Secure delivery of aircraft to the combat theater with minimal losses.
- Recovery of downed aircrew, which preserved the skills base.
- Provision of spares.
- Intelligence, which increased opportunities for destroying Japanese aircraft on the ground.
- Allocation of resources to training replacement and augmenting aircrew.

All of these areas of superiority reflected superior operational planning and execution.

The figures for aircraft sent to the Pacific and operational are summarized graphically in Figure 1 and Figure 2, at the end of this paper.

Aircraft carrier forces

The Pacific War was the first oceanic war—and may very well forever stand as the sole example. As such, naval forces played a uniquely pivotal role.

Regardless of pre-war doctrinal views, all responsible naval authorities on both sides very quickly came to see aircraft carrier forces as the key denominator of naval power in the Pacific.

The two navies had begun the war with small numbers of carriers, all built within the preceding fifteen years. There had been no prior experience to guide development and each had worked to devise appropriate doctrine, with somewhat different results.[67] Because of the differences between and among the carrier fleets, the best simple measure of potential is aggregate displacement of the carrier force, when fully loaded for war.[68]

On 7 December 1941, this figure stood at 220 thousand long tons (klt) for Japan and 156 klt for the USN.[69] By early April 1942 the IJN had 234 klt of carriers in service in the Pacific versus 181 klt for the USN, or nearly a 1.3:1 Japanese advantage. By the end of October, after a series of battles, the balance stood essentially equal at 78 klt to 69 klt. This remained unchanged for nearly a year, throughout which the few surviving carriers (some of which needed extensive repairs) saw very limited action.

Overall, up until late in the summer of 1943 the Japanese had put 29% more carrier tonnage into service. But this advantage was gone after less than six months of war, having yielded Japan little in the meantime. We cannot read too much into the specifics of ship sinkings, which often depended on quite circumstantial details only loosely related to overall command decisions. Yet is it certainly clear that after the initial bold stroke of the Pearl Harbor raid the Japanese command failed to make much of its powerful carrier force.

Only twice did Japan attempt genuinely strategic thrusts with its carrier forces: in the effort to force the Australians from their last toehold on New Guinea by assaulting their base at Port Moresby in May 1942 and again a month later in the attempt on Midway. Both were parried by American forces which had superior operational intelligence (largely due to COMINT) and more reconnaissance aircraft (due to deliberate and long-established American doctrinal choice). In the Midway operation, of course, the IJN not only failed to achieve its objective but also suffered very severe losses. But the important point is that by failing to mass and concentrate its forces well it ran needless risks to its missions.

Finally, in mid August of 1943, the new carriers USS *Essex* (CV 9) and *Independence* (CVL 22) cleared Pearl Harbor bound for their maiden missions. By early October seven more carriers had been added to the US Pacific Fleet, bringing its carrier tonnage total to 282 klt, more than 3½ times that of the IJN. With that, the initiative in the oceanic war passed finally and irretrievably to the United States, marking the beginning of an entirely different phase.

These trends are traced in Figure 3, at the end of this paper.

Naval surface forces

The battleship forces to which both navies had devoted much of their attention played relatively limited roles in the first two years of the Pacific War.[70] One major reason was that in the region around Rabaul, neither opponent had the logistical capacity to supply large quantities of fuel oil until the need for surface forces had largely passed. At later stages, battleships were used primarily for shore bombardment as well as for carrier escorts.

Surface action by lighter forces, however, was important in the campaign in the Solomon Islands (a part of the Allied offensive against Japanese Rabaul-based forces) between August 1942 and early 1943. Once American forces had taken and put into service the airdrome on Guadalcanal, the Japanese relied on night thrusts by surface naval forces down the Slot (New Georgia Sound) to land and resupply troops, and to bombard American positions. When Guadalcanal had at last been secured and Allied forces advanced up the Solomons-Bismarcks chain toward Rabaul, night surface actions continued.

Overall, the numbers and qualities of the ships available to each side were fairly well matched. Tactically, the Japanese generally got the better of the engagements until well into 1943, reflecting superior doctrine, training, and weapons for night surface warfare. There can be little question that the US Navy had done a distinctly inadequate job of preparing itself for this sort of conflict.[71] The result was a delay of several months, increased casualties on the ground as well as at sea, and serious levels of operational and strategic risk.

Ultimately, the USN did master night surface warfare, largely by integrating radar and other technological improvements into its tactical doctrine and training, as well as by fixing the worst of its weapons defects. In the meantime, US operational-level strengths were sufficient to limit the damage done by these tactical inadequacies to tolerable levels.

Ground forces

American ground-force experience in the Pacific is largely another story of initial tactical-level weakness compensated by operational-level strength. It is important to recognize that the compensation was not, at least initially, any particular superiority in quantity, or quality of matériel, or of force numbers.

Neither side had ever made any serious preparation for ground combat in jungles or other tropical landscapes, even though both had opportunities and reasons to do so.[72] The Japanese in general were distinctly quicker to adapt in

a tactical sense. US Army forces in New Guinea, and earlier in the Philippines, suffered from a certain amount of "chateau generalship," leading to insistent demands from the rear for action of a sort not well suited or even feasible for the circumstances. Japanese general officers usually paid a lot of attention to tactics and the tactical situation, which aided and speeded tactical adaptiveness. Much the same was true of the USMC.[73]

But formidable as they were at the tactical level, Japanese forces did not often do well against the Americans. Japanese doctrine emphasized the initial attack above all, intending to overwhelm the opposition at a stroke. This rarely worked against the Americans, even early in the war—even when lacking in tactical maneuver abilities, American forces tended to be tenacious and resourceful in defense.[74]

After the initial attacks, the Japanese quickly found themselves severely embarrassed by lack of logistical support. This told against them with special severity in the stressful environments of the South and Equatorial Pacific regions.

American attacks against Japanese logistics were a factor in this, but by no means the root cause. Like their air forces, Japanese ground forces never made anything like adequate provision for logistical support.[75] Japan's well led, keenly motivated, highly disciplined, finely trained, and adequately armed and equipped troops were undermined by disease, starvation, and lack of munitions to the point where they could not withstand the American onslaught. In many cases, they simply perished of want without direct attack.

Nor was this the only deficiency in Japanese command at the operational level. While Japanese operations officers often were quite adept at deducing what the enemy might do on the basis of military logic, the Japanese in general did poorly at collecting and processing intelligence.[76]

Emphasis on economy of force combined with over-optimism (fed, in part, by faulty intelligence) to prompt inadequate force commitments that were anything but economical in the end. Sometimes this led to absurd operations, as when a battalion task force was dispatched to "wipe out" the Marine division that had just landed on Guadalcanal, and was itself wiped out instead.[77] Even when not carried to such extremes, it fed a penchant for piecemeal serial attacks or inadequately coordinated attacks on multiple axes that invited defeat in detail.

The Americans were by no means immune to operational deficiencies of their own. The Guadalcanal invasion in particular entailed very high operational risks. But to a considerable extent these were calculated; the time value of seizing the island before the Japanese could establish an operational airfield was high enough to justify acceptance of a great deal of risk. Moreover, US commanders and staffs

were rarely complacent or fatalistic about operational deficiencies; once a gap had been revealed, strenuous efforts were usually mounted to close it and prevent repetition.

PME, culture, and military effectiveness

Most students of warfare have long perceived that command and staff culture—beyond the personal qualities of individual officers—has an important effect. To holders of such views it has seemed natural to expect that PME could exert a markedly beneficial effect by shaping and perfecting the command/staff culture.

This study both supports and modifies that view. In the particular case under investigation, it shows that US Army command/staff PME between the two world wars was aimed primarily at the operational level of war, while that of the Navy was divided between the operational and fleet tactical levels. Turning to the initial two years of the Pacific War—the period in which we would expect the effects of pre-war preparation to be most marked—it shows that American performance at operational levels, while very far from perfect, was generally substantially better than that exhibited in World War I. Broadly speaking, it did follow the rational-bureaucratic doctrinal model taught in American PME programs.

The Japanese PME, by contrast, was pitched principally at producing officers who were motivated to the point of fanaticism and intensely devoted to the study of tactics for swift offensive decision. Operational considerations were treated as ancillary—to be dealt with strictly to the extent necessary to achieve immediate tactical victory. The initial Japanese centrifugal offensive followed these precepts with devastatingly successful results. But when American naval successes at the Coral Sea and Midway battles permitted Allied forces (under American operational command) to go over to a limited offensive in the regions northeast of Australia the Japanese seemed unable to respond effectively at an operational level.

The result was disproportionate Japanese attrition, particularly of the air forces which were especially crucial in this conflict. This allowed the Allies to achieve substantial force superiority without having to supply significantly greater force inputs – inputs they were not yet in a position to supply in 1943. In turn, this permitted them to overcome highly capable Japanese forces without paying excessive prices for victory.

Thus it is certainly reasonable to conclude that the command/staff cultures of the Japanese and Americans had significant effects in terms of military performance, and that there cultures did accurately reflect the PME programs of the various services. At the same time, we must acknowledge that the PME programs

were decisively shaped by the command/staff cultures of their services. Moreover, we can see that there were systematic national, as opposed to purely service-specific differences in PME choices, seemingly unrelated to the differences in geostrategic or economic situation—suggesting strongly that the command/staff cultures are shaped significantly by broader forces within their societies of origin.

It is necessary to exercise some caution in drawing general lessons from a single analysis of a single case. Nevertheless, it seems reasonable to suggest that:

- Study of the structure and orientation of PME programs may give useful clues to probable performance in war.

- In structuring PME programs it is well to make serious efforts to give careful and objective consideration to assumptions that may reflect underlying cultural assumptions of the society that are at odds with rational military calculation.

This latter point raises interesting questions of how far it may be possible for a military command/staff culture to be made to diverge from the culture of its underlying society, and the implications of such divergence.

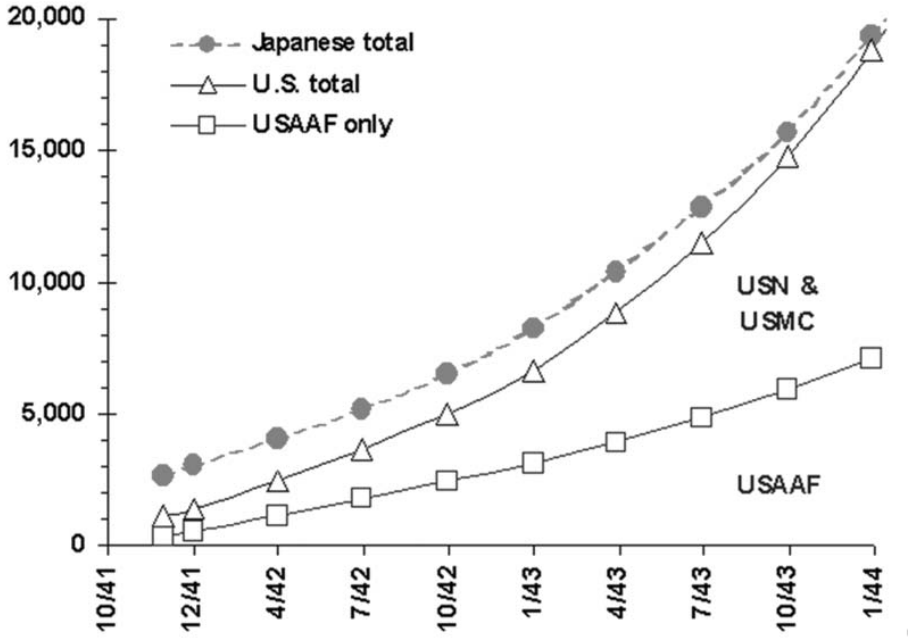


Figure 1. First-line combat aircraft present in Pacific theaters as of 1 Dec 1941 plus cumulative numbers of first-line combat aircraft dispatched to Pacific theaters through dates as shown.

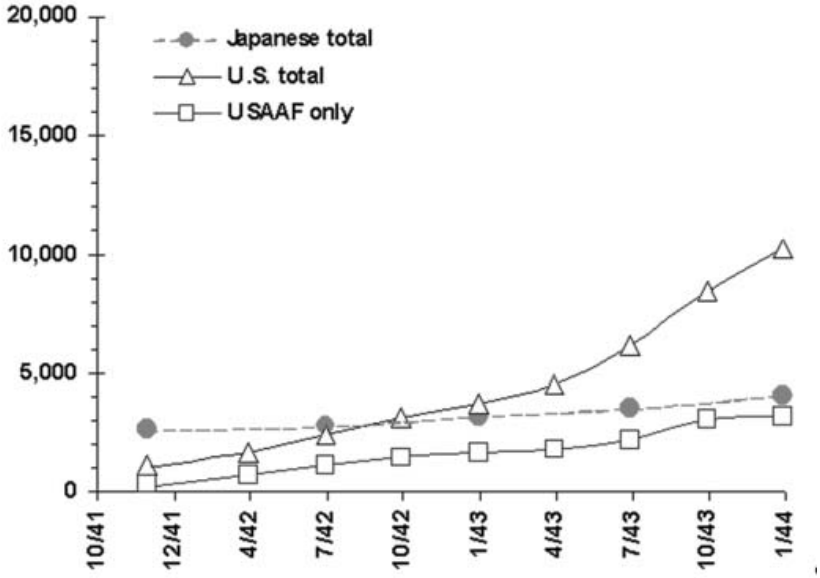


Figure 2. First-line combat aircraft actually present in Pacific theaters on dates as shown.

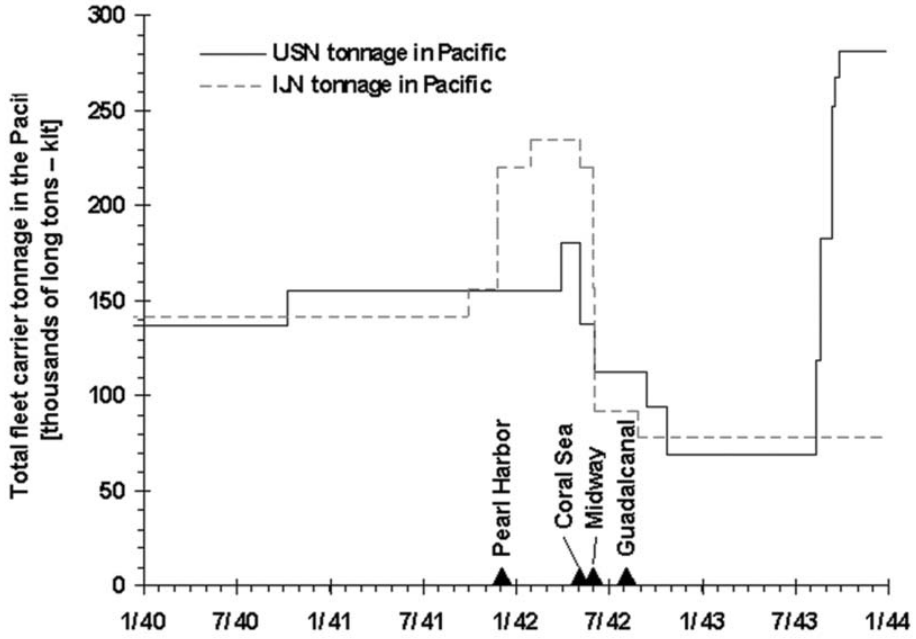


Figure 3. Fleet carrier tonnage in service in the Pacific as of dates as shown.

Abbreviations and acronyms

AAC	Army Air Corps (US)
AAF	Army Air Forces (US)
AEF	American Expeditionary Force
AIC	Army Industrial College (US)
ASC	Army Staff College (Japan)
ASW	antisubmarine warfare
AWC	Army War College (US)
C&GSS	Command and General Staff School (US)
CDR	commander (naval rank)
COMINT	communications intelligence
CPT	captain (army rank)
CV	aircraft carrier
CVL	light aircraft carrier
Divn.	division (army unit)
IJA	Imperial Japanese Army
IJN	Imperial Japanese Navy
J	Japanese (prefix)
klt	thousands of long tons
LT	lieutenant (naval rank)
MAJ	major (army rank)
NCO	noncommissioned officer
NSC	Naval Staff College (Japan)
NWC	Naval War College (US)
PME	professional military education
RADM	rear admiral
Regt.	regiment
SNLF	Special Naval Landing Force (Japan)
TO&E	table of organization and equipment
US	US (prefix)
USMC	US Marine Corps
USN	US Navy
USSBS	US Strategic Bombing Survey

Notes

1 This paper is copyright 2005 by CNA Corporation. The author may be reached by e-mail at oneilw_cna@pobox.com. The author wishes to acknowledge with gratitude the support of Mr. Andrew W. Marshall, Director of Net Assessment in the Office of the Secretary of Defense, not only for sponsoring the project on which this paper is based but for providing valuable intellectual contributions.

2 All abbreviations and acronyms used in this paper are recapitulated in a table at its end for convenience.

3 For a broad summary of Navy as well as Army PME development prior to World War I see Harry P. Ball, *Of Responsible Command: A History of the US Army War College*, Revised Edition (Carlisle Barracks, Pennsylvania: Alumni Association of the United States Army War College, 1994), 1–145.

4 These developments are well summarized in Marius B. Jansen, *The Making of Modern Japan* (Cambridge: Belknap Press of Harvard University Press, 2000).

5 For Japanese Army development see Edward J. Drea, "The Imperial Japanese Army (1868-1945): Origins, Evolution, Legacy," in *War in the Modern World*, edited by Jeremy Black (London: Routledge, 2003); Alvin D. Coox, "The Japanese Army Experience," in *New Dimensions in Military History*, edited by Russell F. Weigley (San Rafael, California: Presidio Press, 1975); and Roger F. Hackett, "The Military: A. Japan," in *Political Modernization in Japan and Turkey*, edited by Robert E. Ward and Dankwart A. Rustow (Princeton: Princeton University Press, 1964). For the Navy, see David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941*, (Annapolis: Naval Institute Press, 1997).

6 H. P. Ball, *Of Responsible Command*, pages 147-50; Edward M. Coffman, "The Battle Against Red Tape: Business Methods of the War Department General Staff 1917-1918" *Military Affairs*, 26, No. 1 (Spring 1962): 1-10; James J. Cooke, *Pershing and His Generals: Command and Staff in the AEF* (Westport, Connecticut: Praeger Publishers, 1997), pp. 31-43 and *passim;*Timothy K. Nenninger, "'Unsystematic as a Mode of Command': Commanders and the Process of Command in the American Expeditionary Forces, 1917-1918" *Journal of Military History*, 64, No. 3 (Jul 2000): 739-68.

7 Although the Japanese Army did not become "Imperial" until about 1930, I will follow widespread practice and refer to it as the IJA throughout.

8 Author's interpretation based on consistent elements in actual wartime operations plus a wide variety of descriptions of doctrine and PME curricula. It has been influenced by and is largely consistent with Edward J. Drea, "US Army and Imperial Japanese Army Doctrine During World War II," in his *In the Service of the Emperor: Essays on the Imperial Japanese Army* (Lincoln: University of Nebraska Press, 1998): 60-74, and also by Eric [M] Bergerud, *Touched with Fire: The Land War in the South Pacific* (New York: Viking, 1996).

9 David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941*, (Annapolis: Naval Institute Press, 1997), 238 et seq.

10 This was in part because the USN had solved certain technological problems in gun fire control which they believed (correctly, as it turned out) the Japanese and others had not. The value of these innovations was, however, overestimated.

11 Trent Hone, "The Evolution of Fleet Tactical Doctrine in the US Navy, 1922-1941," *Journal of Military History*, 67, No. 4 (Oct 2003): 1107-48.

12 Notably, of course, the divisive and inflammatory Brigadier General William "Billy" Mitchell.

13 Walter LaFeber, *The Clash: US-Japanese Relations Throughout History* (New York: W. W. Norton & Co., 1997), 65-159.

14 Brian McAlister Linn, *Guardians of Empire: The US Army and the Pacific, 1902-1940*, (Chapel Hill: University of North Carolina Press, 1997), passim.

15 George B. Eaton, "General Walter Krueger and Joint War Planning, 1922-1938," *Naval War College Review*, 48, No. 2 (Spring 1995): 91-113; Henry G. Gole, *The Road to Rainbow: Army Planning for Global War, 1934-1940*, (Annapolis: Naval Institute Press, 2003), passim; Brian McAlister Linn, *op. cit.*, pp. 165 *et seq.*; Ronald Schaffer, "General Stanley D. Embick: Military Dissenter," *Military Affairs*, 37, No. 3 (Oct 1973): 89-95.

16 George B. Eaton, *op. cit.*; Edward S. Miller, *War Plan Orange: The US Strategy to Defeat Japan, 1897-1945*, (Annapolis: Naval Institute Press, 1991).

17 Evans and Peattie, *op. cit.*, 443-6.

18 Kenneth J. Clifford, *Progress and Purpose: A Developmental History of the US Marine Corps, 1900-1970* (Washington: History and Museums Division, Headquarters, United States Marine Corps, 1973); Allan R. Millett, *Semper Fideles: The History of the United States Marine Corps* (New York: Macmillan Publishing Co., 1980).

19 Maurer Maurer, *Aviation in the US Army, 1919-1939* (Washington: Office of Air Force History, 1987); James P. Tate, *The Army and its Air Corps : Army Policy Toward Aviation, 1919–1941* (Maxwell Air Force Base, Alabama: Air University Press, 1998).

20 For a fine analytical overview of US Army PME between the wars see Charles E. Kirkpatrick, "Orthodox Soldiers: US Army Formal Schools and Junior Officers between the Wars," in *Forging the Sword: Selecting, Educating, and Training Cadets and Junior Officers in the Modern World*, edited by Elliott V. Converse, III (Chicago: Imprint Publications, 1998).

21 For the C&GSS see Mark C. Bender, "Watershed at Leavenworth: Dwight D. Eisenhower and the Command and General Staff School" (M.S. thesis, Fort Leavenworth, Kansas: Command and General Staff College, 1988); Philip Carlton Cockrell, "Brown Shoes and Mortar Boards: US Army Officer Professional Education at the Command and General Staff School, Fort Leavenworth, Kansas, 1919-1940" (Ph.D. diss., University

of South Carolina, 1991); Boyd L. Dastrup, *The US Army Command and General Staff College: A Centennial History* (Manhattan, Kansas: Sunflower University Press, 1982); Elvid Hunt and Walter E. Lorence, *History of Fort Leavenworth, 1827-1937*, Second Edition Reprint (Fort Leavenworth, Kansas: Fort Leavenworth Historical Society, 1981) [Command and General Staff School Press, 1937]; Timothy K. Nenninger, "Leavenworth and Its Critics: The US Army Command and General Staff School, 1920-1940" *Journal of Military History*, 58, No. 2 (Apr 1994): 199-231; Peter J[ohn] Schifferle, "Anticipating Armageddon: The Leavenworth Schools and United States Army Military Effectiveness, 1919 to 1945" (Ph.D. diss., University of Kansas Press, 2002).

For the AWC see H. P. Ball, *Of Responsible Command*.

For the IJA's ASC see Theodore Failor Cook, Jr., "The Japanese Officer Corps: The Making of a Military Elite, 1872-1945" (Ph.D. diss., Princeton, 1987); Alvin D. Coox, "Japanese Military Education and Planning Before Pearl Harbor," in *Military Planning in the Twentieth Century: Proceedings of the Eleventh Military History Symposium, 11-12 October 1984*, edited by Harry R. Borowski (Washington: Office of Air Force History, 1986); Edward J. Drea, "US Army and Imperial Japanese Army Doctrine During World War II."

22 Occasionally rendered as *War College*.

23 Francis W. A'Hearn, "The Industrial College of the Armed Forces: Contextual Analysis of an Evolving Mission, 1924 - 1994" (Ed.D. diss., Blacksburg, Virginia: Virginia Polytechnic Institute and State University, 1997); Theodore W. Bauer, *History of the Industrial College of the Armed Forces* (Washington: Alumni Association of the Industrial College of the Armed Forces, 1983).

24 No comprehensive statistics are available in either case. I make this judgment after scanning a number of the entries in Robert P. Fogerty, "Biographical Data on Air Force General Officers, 1917-1952," Two volumes, US Air Force Historical Study No. 91 (Maxwell Air Force Base, Alabama: USAF Historical Division, Air University, 1953). Many memoirs and biographies of senior air officers speak to the issue of estrangement from the rest of the Army and negative feelings about the C&GSS course. See Robert T. Finney, *History of the Air Corps Tactical School, 1920-1940* (Maxwell Air Force Base, Alabama: Research Studies Institute, USAF Historical Division, Air University, 1955) and James P. Tate, *The Army and its Air Corps*, 192.

25 Its title might better be translated as *Higher Naval College*, but Naval Staff College is more commonly seen.

26 For the NWC see Thomas B. Buell, "Edward C. Kalbfus and the Naval Planner's 'Holy Scripture': *Sound Military Decision" Naval War College Review*, 25, No. 5 (May-Jun 1973): 31-41; *Idem*, "Admiral Raymond A. Spruance and the Naval War College: Part I – Preparing for World War II" *Naval War College Review*, 23, No. 7 (Mar 1971): 31-51; *Idem*, "Admiral Raymond A. Spruance and the Naval War College: Part II – From Student to Warrior" *Naval War College Review*, 23, No. 8 (Apr 1971): 29-53; John B. Hattendorf, B. Mitchell Simpson, III and John R. Wadleigh, *Sailors and Scholars: The*

Centenial History of the Naval War College (Newport: Naval War College Press, 1984); Gerald John Kennedy, "United States Naval War College, 1919-1941: An Institutional Response to Naval Preparedness" (Ph.D. diss., Minneapolis: University of Minnesota, 1975); Douglas V. Smith, "Preparing for War: Naval Education Between the World Wars" *International Journal of Naval History*, 1, No. 1 (Apr 2002); Michael Vlahos, *Blue Sword: The Naval War College and the American Mission, 1919-1941* (Newport, Rhode Island: Naval War College Press, 1980).

For the NSC see Alvin D. Coox, "Japanese Military Education and Planning Before Pearl Harbor"; Peter George Cornwall, "The Meiji Navy: Training in an Age of Change" (Ph.D. diss., University of Michigan, 1970); Evans and Peattie, *Op. cit., passim*.

27 The Bureau of Navigation had the functions of a personnel bureau.

28 This is a pattern which has affected the NWC periodically since then.

29 Fleet Admiral William F. Halsey and General Walter Krueger are two prominent examples.

30 Donald F. Bittner, "Foreign Military Officer Training in Reverse: U. S. Marine Corps Officers in the French Professional Military Education System in the Interwar Years," *Journal of Military History*, 51, No. 3 (Jul 1993): 481-510.

31 I base these generalizations on examination of a number of biographical records of officers.

32 Leonard A. Humphreys, *The Way of the Heavenly Sword: The Japanese Army in the 1920s*, (Stanford: Stanford University Press, 1995), pp. 109-10; Theodore F. Cook, "The Japanese Officer Corps," 381-4.

33 Humphreys, Ibid., 386-7.

34 Edward J. Drea, *Nomonhan: Japanese-Soviet Tactical Combat, 1939* Leavenworth Papers, (Fort Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, 1981), 16.

35 See Chie Nakane, *Japanese Society*, (Berkeley: University of California Press, 1970), esp. 87-103. While the relevance of her description to current-day Japanese society is in some respects debatable, no one has better captured the nature of Japanese society in the period under discussion here – a period which, it is well to remember, lies just halfway between the Japan of today and the end of the post-feudal society of the Tokugawa Shogunate. Also see Humphreys, *The Way of the Heavenly Sword*, p. 95. The well-known and often-cited study by the American anthropologist Ruth [Fulton] Benedict, *The Chrysanthemum and the Sword: Patterns of Japanese Culture* (Boston: Houghton Mifflin, 1946), is handicapped by the circumstances under which Benedict had to conduct her work during World War II.

36 The psychological, cultural, and social – and even neurological – correlates of the various arms and services are worthy of serious study, but for this purpose it suffices simply to observe the phenomenon of greater interest regardless of its origins or meaning.

37 Leonard A. Humphreys, "The Japanese Military Tradition," in *The Modern Japanese Military System*, edited by James H. Buck (Beverly Hills: Sage Publications, 1975), 32-3; *Idem, The Way of the Heavenly Sword*, 12-16 and 99-103; Yoshito Kita, "The Japanese Military's Attitude Towards International Law and the Treatment of Prisoners of War," in *The History of Anglo-Japanese Relations, 1600-2000. Volume III: The Military Dimension*, edited by Ian Gow and Yoichi Hirama, 257-60.

38 Theodore F. Cook, "The Japanese Officer Corps," 9 and 307.

39 William D. O'Neil, *Interwar US and Japanese National Product and Defense Expenditure*, CIM D0007249.A1 (Alexandria, Virginia: Center for Naval Analyses, June 2003), 15. The methodological complications involved in such a comparison are significant and the report should be read carefully to understand exactly what the comparison means.

40 Ibid., 33-5. The methodological complications in this comparison are greater still and again careful reading of the report is advised.

41 Ironically, Japanese orders (to support their own armaments program, in large measure) helped a great deal in preserving the American machine tool industry through the ravages of the Depression. See Buford Rowland and William B. Boyd, *US Navy Bureau of Ordnance in World War II* (Washington: Bureau of Ordnance, US Navy, 1953), 434.

42 United States Strategic Bombing Survey (Pacific) [USSBS], *Interrogations of Japanese Officials*, Vol. 2 (Washington: Naval Analysis Division, 1946), opposite page 374; and USSBS, *Japanese Air Power*, (Washington: Military Analysis Division, July 1946), 29. These figures are based on quite incomplete and rather inconsistent official Japanese data; see USSBS, Japanese Air Power for details and cautions. Many of the tabular data used throughout contain typographical errors which must be corrected on the basis of checks of internal and cross-source consistency.

43 The USAAF was the operating command under which all U. S. Army air units fell. The USAAC remained the relevant administrative command.

44 Office of Statistical Control, *Army Air Forces Statistical Digest: World War II* (Washington: US Army Air Forces, 1945), 163. Includes aircraft based in Alaska as well as Pacific islands. Includes 283 aircraft officially classified as *second line* or *miscellaneous*.

45 Compiled from data in US Navy Department Bureau of Aeronautics, "Monthly Status of Naval Aircraft," 29 November 1941. Includes aircraft assigned to the Pacific Fleet, Asiatic Fleet, and Marine Air Wing 2. Includes aircraft in overhaul, awaiting overhaul, or short-term storage, and combat-classified aircraft employed in support roles, as well as 71 aircraft officially classified as *obsolescent*. Excludes lighter-than-air and aircraft officially classified as *obsolete*.

46 For Japanese air order of battle on the eve of the Pacific War see USSBS, *Japanese Air Power*, 5.

47 USSBS, *Air Forces Allied with the United States in the War Against Japan* (Washington: Military Analysis Division, 1947), 13. Also see USSBS, *Japanese Air Power*, Exhibits D and E, 34 et seq.

48 R[ichard] J. Overy, *The Air War*, 1939-1945 (New York: Stein and Day, 1980), 150.

49 Author's analysis of data compiled from "Monthly Status of Naval Aircraft" for this period.

50 Author's analysis based on following – For IJN and IJA production: USSBS, *The Japanese Aircraft Industry* (Washington: Government Printing Office, 1947), 155 and 167; USSBS, *Interrogations of Japanese Officials*, Vol. 2, opposite page 374, with quadratically-interpolated intercalary estimates as necessary. Based on analysis of information from various sources it is estimated that approximately 75% of IJA production went to theaters against the US in this period, and approximately 90% of IJN production. For USAAF deliveries to theaters against Japan (including China and Alaska): *Army Air Forces Statistical Digest*, 183, with cubic interpolation as necessary for intercalary estimates. For USN production, *Army Air Forces Statistical Digest*, 129-31. Based on analysis of data from "Monthly Status of Naval Aircraft" for this period, it is estimated that no more than 60% of USN production went to the Pacific.

51 Jonathan B. Parshall and Anthony P. Tully, *Shattered Sword: The Japanese Story of the Battle of Midway* (Dulles, Virginia: Potomac Books, November 2005), esp. 66 and 486. In addition to decisively superseding all previous English-language accounts of the Japanese side of the Midway battle this new book provides a wealth of material regarding Japanese naval aviation in the early part of the Pacific War.

52 The difficulties of the environment are summarized in Eric Bergerud, *Touched With Fire*, 55-118.

53 Zero is the name commonly used for the Mitsubishi model A6M, designated Type 0 Fighter by the IJN and code-named *Zeke* by the Allies. See René J. Francillon, *Japanese Aircraft of the Pacific War* (Annapolis: Naval Institute Press, 1988); information on the characteristics of the Zero is found on 362-77, while 46-59 cover Japanese aircraft designation systems.

54 Ray[mond] Wagner, *American Combat Planes of the 20th Century: A Comprehensive Reference* (Reno, Nevada: Jack Bacon & Co., 2004), 295-306, 314-22, and 458-63.

55 See Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*, http://www.dtic.mil/doctrine/jel/doddict/, s.v. defensive counterair and offensive counterair.

56 Ray Wagner, *American Combat Planes of the 20th Century*, 306-14.

57 Ibid., 325-40.

58 All strength figures from *Army Air Forces Statistical Digest*, 163-4.

59 Ray Wagner, *American Combat Planes of the 20th Century*, 464-71. For operational statistics see Office of Naval Intelligence Air Branch, Naval Aviation Combat Statistics: World War II, OPNAV-P-23V No. A129, (Washington: Office of the Chief of Naval

Operations, 17 Jun 1946), 20-1, but take note of cautions regarding data for land-based sorties on 9 and 23.

60 For more specific information see Army Air Forces Board, *Test of Comparative Performance Between the Japanese "Zeke" 52 and the P-38, P-47 and P-51 Type Aircraft*, (Orlando, Florida: Army Air Forces Proving Ground Command, 3 Apr 1945); Eric M[elrose] Brown, *Duels in the Sky: World War II Naval Aircraft in Combat* (Washington: Naval Institute Press, 1988), *passim; Intelligence Service, Flight Characteristics of the Japanese Zero Fighter*, Informational Intelligence Summary No. 85, (Washington: US Army Air Forces, Dec 1942); and *Report of Joint Fighter Conference, NAS Patuxent River, Md., 16-23 Oct 1944, passim*. Inconsistencies among these and other assessments reflect sample variations in aircraft performance and differences in assessment criteria, among other causes.

61 USSBS, *Air Forces Allied with the United States in the War Against Japan*, 13.

62 USSBS, *Japanese Air Power*, 30.

63 A total of 6,153 for USN and USMC, and 2,750 for USAAF. See Office of Naval Intelligence Air Branch, *Naval Aviation Combat Statistics*, 67 and *Army Air Forces Statistical Digest*, 265-8.

64 *Naval Aviation Combat Statistics*, 76. The report suggests caution in using these figures.

65 The aircraft used in this period actually were designated FM rather than F4F, but were of the same design. The difference in designation resulted from their manufacture in a plant operated by General Motors rather than one operated by Grumman. For this purpose, the FM was simply another series of F4F.

66 USAAF, 3,182 aircraft (*Army Air Forces Statistical Digest*, p. 164); USN and USMC Pacific air forces, 7,027 aircraft ("Monthly Status of Naval Aircraft," 31 December 1943). Japanese figures from USSBS, *Japanese Air Power*, p. 29. Corresponding figures for the end of 1942 are 3,778 for the Americans (1,749 USAAF plus 2,029 USN/USMC) against 3,200 Japanese. Thus the US entered 1943 with a narrow advantage (having begun 1942 at a major disadvantage) and ended it decisively superior. In the American case, losses included substantial numbers of aircraft retired for obsolescence or "war weariness."

67 For a succinct summary of differences, together with an analysis of early-war carrier operations, see James P. Levy, "Race for the Decisive Weapon: British, American, and Japanese Carrier Fleets, 1942–1943," *Naval War College Review*, 58, No. 1 (Winter 2005): 137-50.

68 Numerous detailed studies have shown that the military capability of an aircraft carrier, measured in any of a number of possible ways, is an increasing function of full-load displacement and that the relationship is nearly strictly proportional over a fairly broad range of possible displacements. Assuming that the individual ships are properly designed and sized relative to the technological and military constraints of the time, aggregate displacement is thus a good proxy for military capability.

69 Carriers are counted for this purpose as of their date of first readiness for war in the Pacific, typically several months after formal commissioning. Carrier tonnages are compiled from data in Roger Chesneau, (Editor), *Conway's All the World's Fighting Ships, 1922-1946*, Conway's All the World's Fighting Ships (London: Conway Maritime Press, 1980). Dates of readiness for war of IJN carriers are estimated from data contained in Anthony Tully, "Japanese Carriers: Tabular Records of Movement," http://www.combinedfleet.com/cvlist.htm, updated 5 November 2005 (accessed May 2005). For USN carriers commissioning during the war, the readiness date is taken as that on which the carrier first sortied for a strike mission, usually from Pearl Harbor, as determined or estimated from data contained in "*Dictionary of American Naval Fighting Ships*," http://www.history.navy.mil/danfs/ (accessed May 2005). The small carrier USS. Ranger (CV 4, commissioned 1934) is excluded as it was never employed in the Pacific throughout the war and was considered unsuitable for fleet operations. Also excluded are converted merchant ships unable to steam at the high speeds necessary for fleet operations.

70 David C. Fuquea, "Task Force One: The Wasted Assets of the United States Pacific Battleship Fleet, 1942," *The Journal of Military History*, 61 (Oct 1997): 707-34.

71 T[errence] J[ames] McKearney, "The Solomons Naval Campaign: A Paradigm for Surface Warships in Maritime Strategy," (M.A. thesis, Monterey, California: Naval Postgraduate School, 1985).

72 Between the wars, the Philippines and the Panama Canal Zone had been important American outposts, with relatively substantial garrisons. The Japanese had maintained forces on Taiwan.

73 Some of this may have been situational, inasmuch as Marine Corps forces were generally relatively limited in size and scope of operations. It does appear, however, that in leaving much of the responsibility for logistics and support to the Navy, senior Marines may have felt freed and impelled to stay closer to tactical issues.

74 On Bataan, American forces were defeated far more by starvation and disease than by direct enemy action. Corregidor was carried by assault, as was Wake, but these were the last such significant victories the Japanese were to achieve against American ground forces, localized and temporary tactical reverses aside.

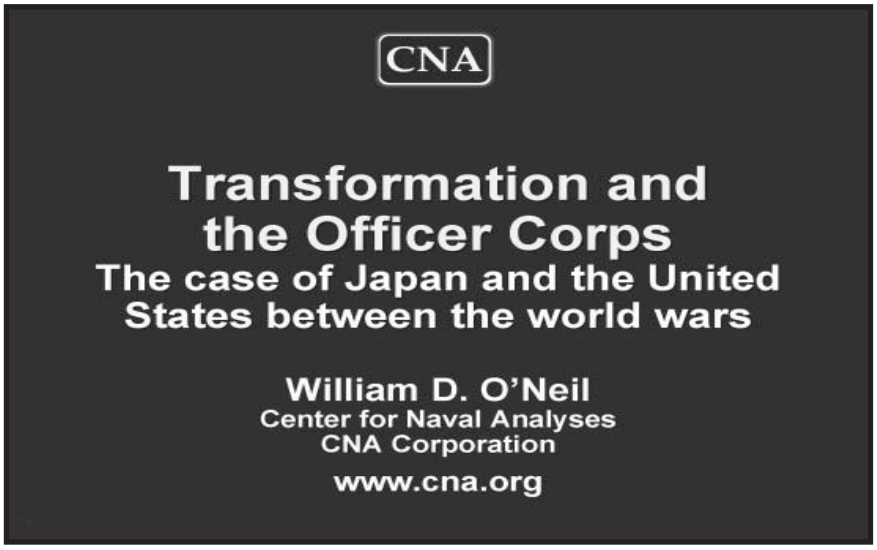
75 USSBS, *The Effect of Air Action on Japanese Ground Army Logistics* (Washington: Military Analysis Division, 1947) details not only the erosive effects of air attack but also the underlying inadequacies that interdiction exacerbated.

76 Alvin D. Coox, "Japanese Intelligence in the Pacific Theater: Its Non-Revolutionary Nature," in *The Intelligence Revolution: A Historical Perspective*, edited by Walter T. Hitchcock (Washington: Office of Air Force History, 1991); Japanese Intelligence Section USSBS, G-2, *Japanese Military and Naval Intelligence Division*, (Washington: Government Printing Office, Apr 1946).

77 Eric Bergerud, *Touched With Fire*, pp. 165-75 and Richard B. Frank, *Guadalcanal: The Definitive Account of the Landmark Battle*, (New York: Random House, 1990), 141 et seq.

O'Neil Slide Addendum:

Transformation and the Officer Corps - The case of Japan and the United States between the World Wars.



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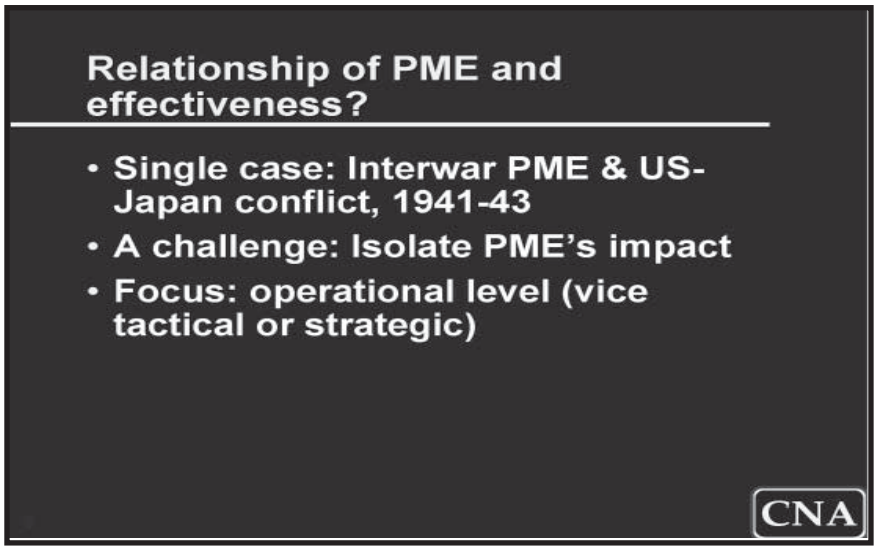

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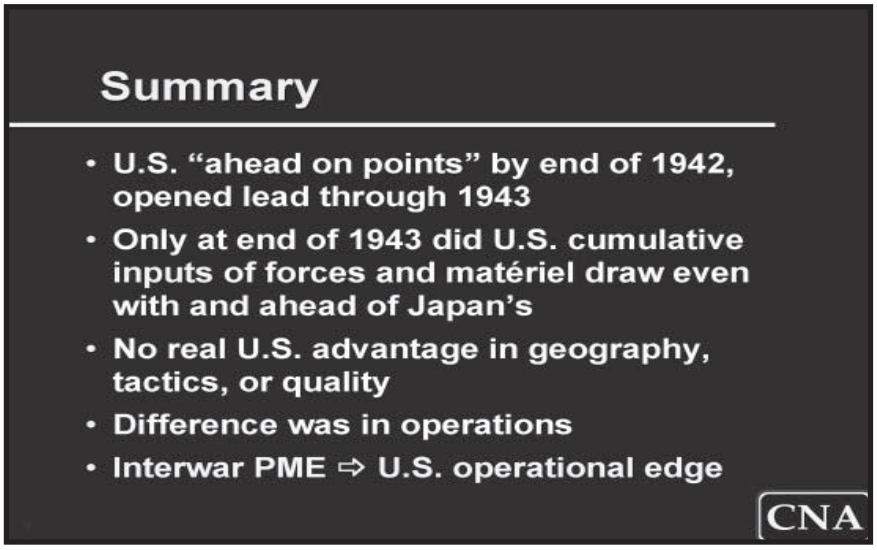

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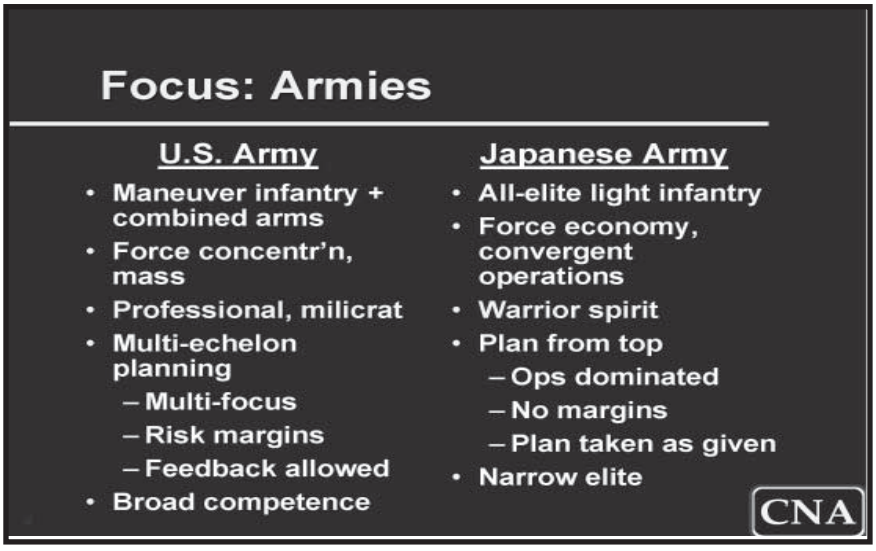

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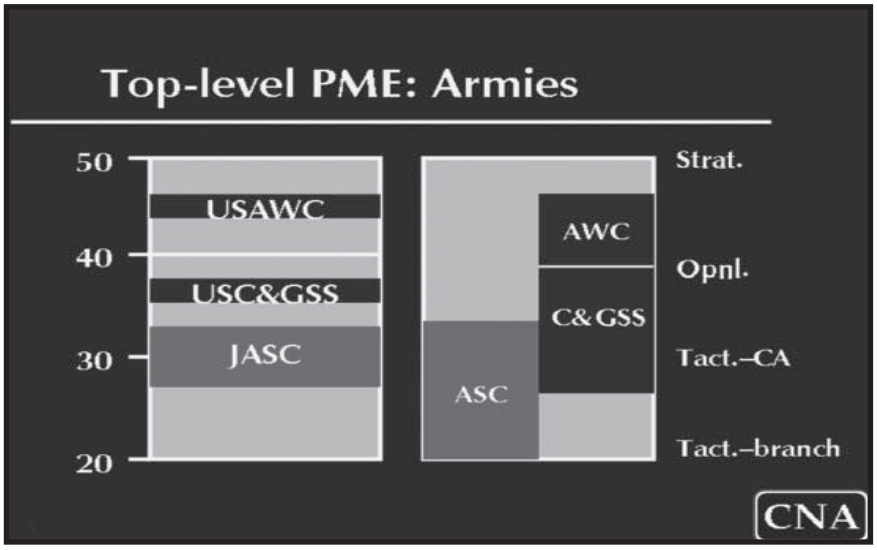

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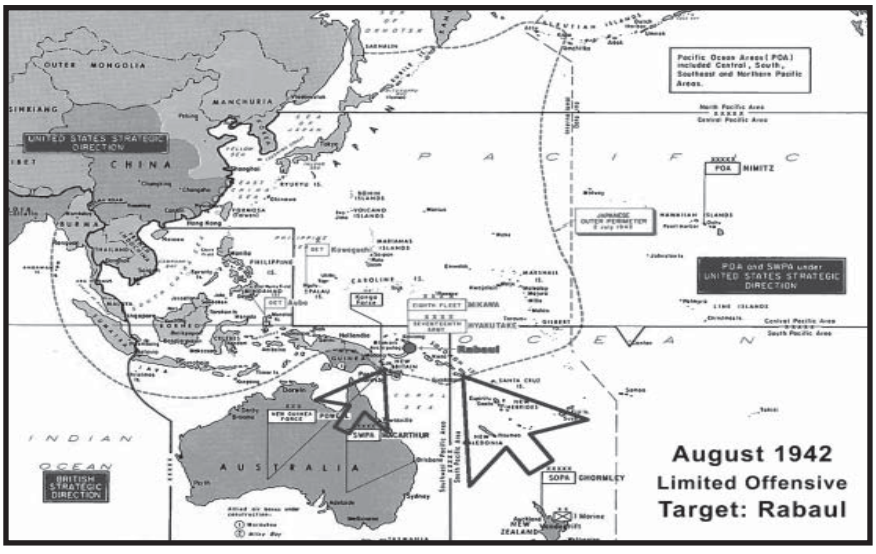

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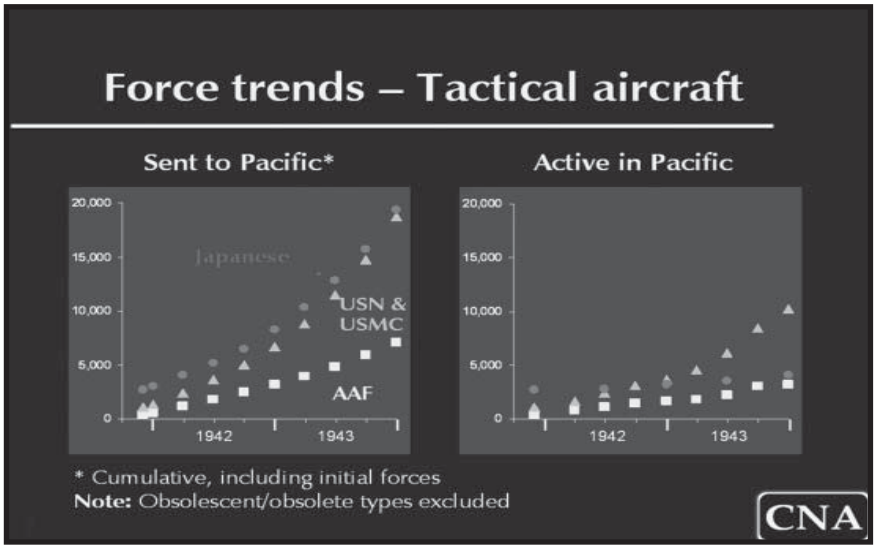
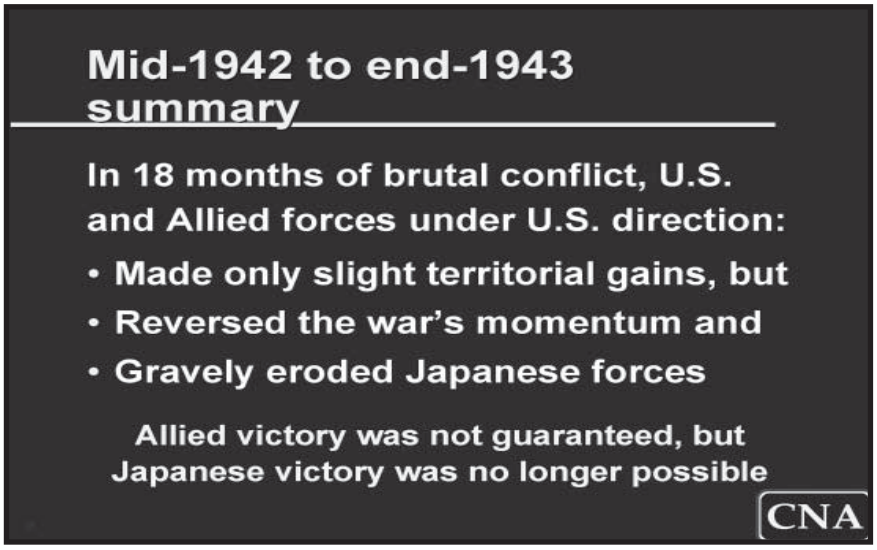


Figure 7

Figure 8



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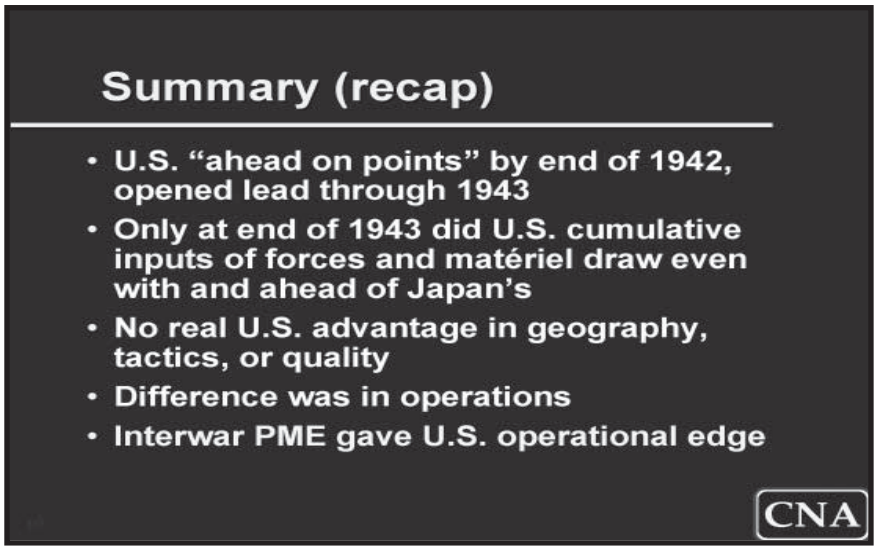

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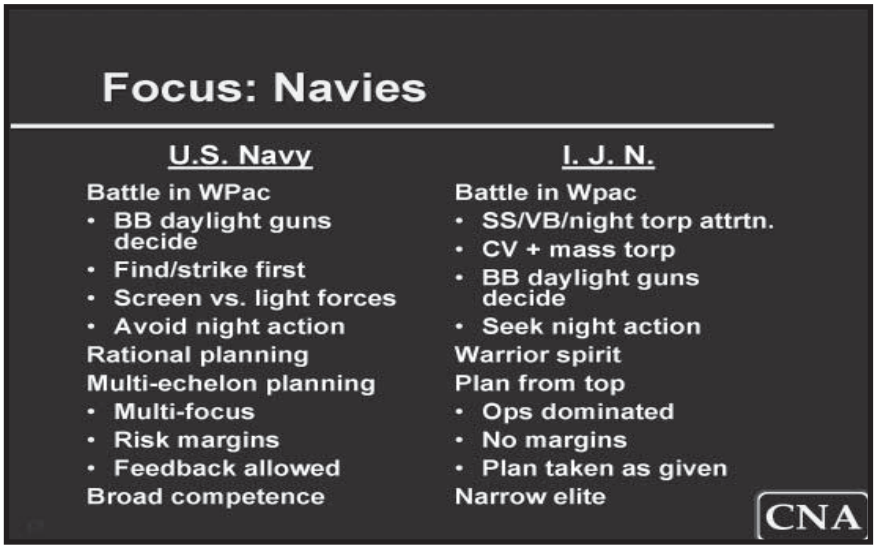

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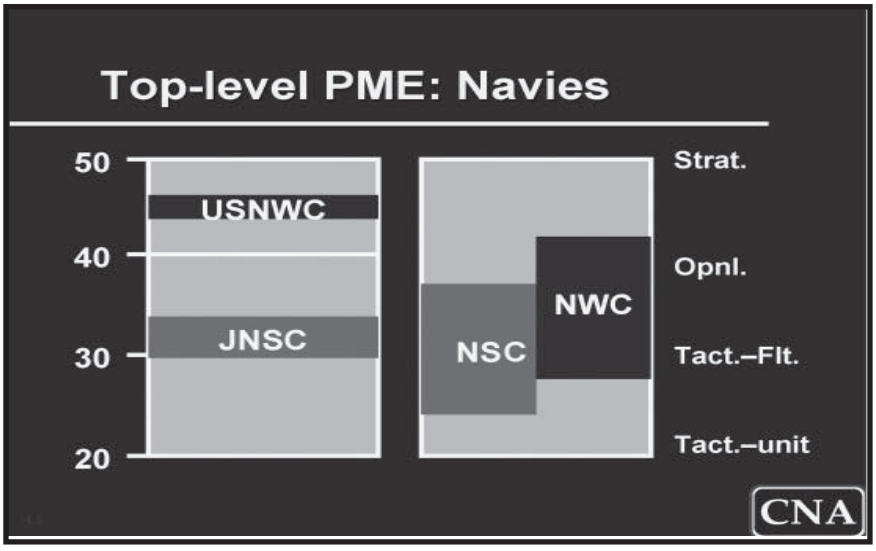


Figure 12

Figure 13

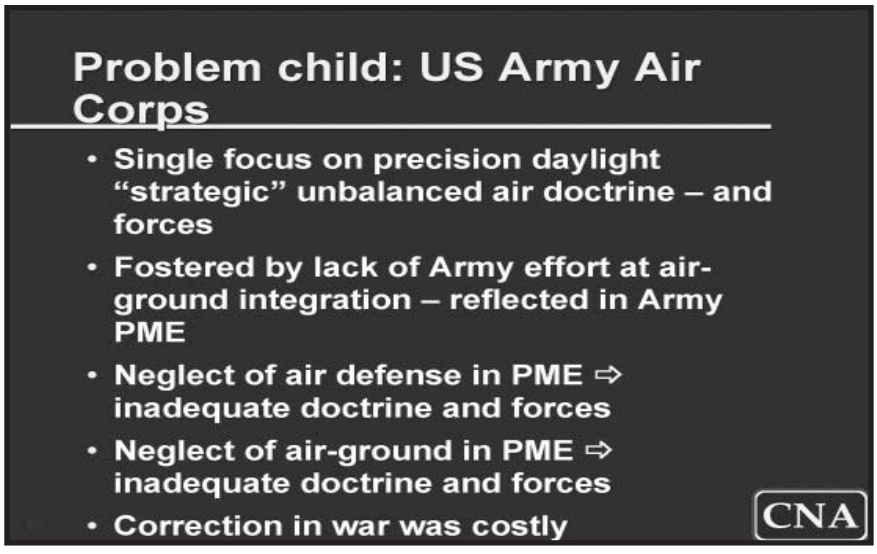


Figure 14

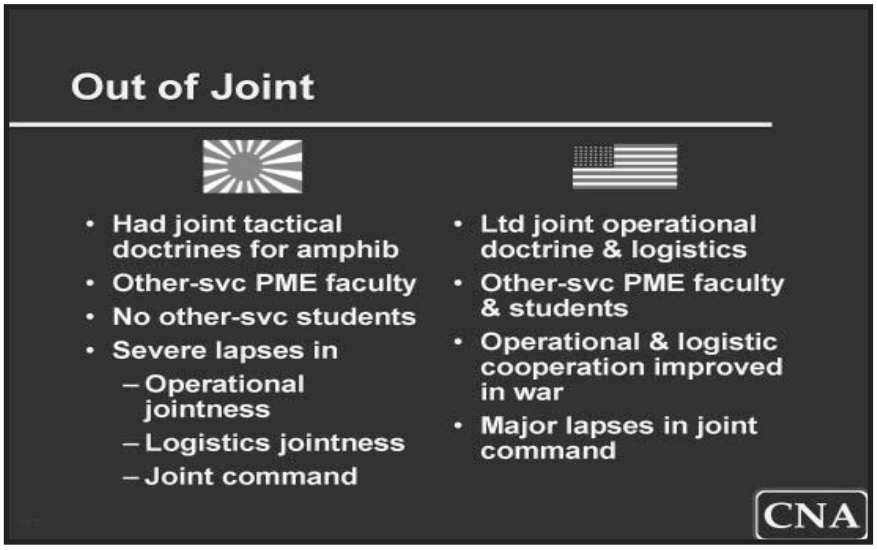


Figure 15

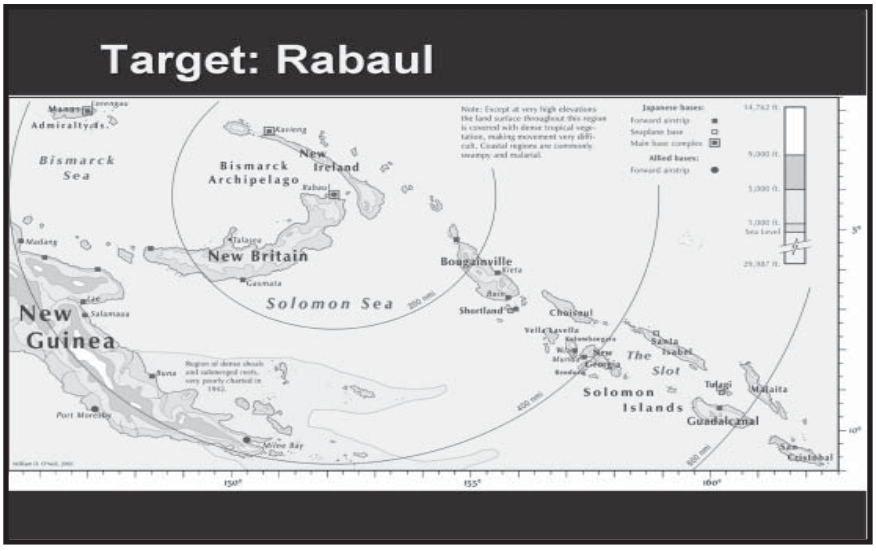


Figure 16

Day 3, Session 2 Question and Answers

Moderated by
Dr. Curtis S. King–Combat Studies Institute

Dr. King
I think Will had mentioned that he had a lot of material in the Navy—probably what the backup slides included. I urge you all—both papers are quite extensive, and cover a lot of material that was not in the briefings and, when we publish the proceedings, make for real good reads, that additionally material will be excellent.

Let me be real brief with some sort of commentator role here, and then get to questions as fast as possible. I see a connection between these briefings. I want to outline that connection, and bring in a third area from my own background, which is Russian Soviet history. So let me start by saying that, among other commonalities in the two briefings, the influence of outside factors on transformation.

I'm saying this, and I'm choosing the word transformation carefully, because I think that's obviously the theme of this whole conference. But we've discarded that word—you know, revolution in warfare, or revolution in military affairs, and so on—because people are scared of that term, and I believe rightfully so. But in some ways, I think we're starting to talk as if transformation was also a revolution, as opposed to simple change, and we're wrestling with that, I know, in this whole conference.

My point would be, though, outside influences had a huge factor on the two transformations—or changes, in the smaller sense—that took place in the force. For Cadet Command, political factors, the politics of the world, the drawdown because of the end of the Cold War, and the internal politics of congressmen, and the heads of universities. This, and budgetary factors had a whole heck of a lot to do with the drawdown, or cutback in the ROTC Cadet Command—not because of some great vision of the future what Cadet Command should look like. Now, Art has said that vision may come to fruition, but I see it more as gradualist, driven by outside factors, not because of internal vision, if you will.

For the US and Japanese PME, how much they're influenced by culture—I don't have to reiterate what Will covered so well already, but whatever the Japanese—the national culture, of course, but the cultures of the militaries; the idea of the Americans looking at is as a profession in the sense of a lawyer, doctor, this kind of profession, whereas it's an elite caste in the Japanese unit.

So you can't make such great dramatic changes that you might want to make doctrinally. Both sides going into the war—as Will points out in his paper—on the Navy side still believe in the battleship line; all this talk about aircraft carriers still doesn't come to fruition until the fighting actually takes place.

My own examples, the Russians and the Soviets sought to inject a revolution in warfare, if you will, in putting Marxist ideology—it was a socialist way of war in the 1920s, and guys like Frunza and Svechen and Tukachevsky battled with that. Ultimately, they discarded it. You know, pieces were still there—some good ideas came about—but in particular, for those of you who are aware of it, Tukachevsky's idea of this continuing offensive, this expanding torrent, that as you've invaded another country, because you were a revolutionary army, you got stronger. Well, it turns out that the rules of the military that as you advance, you tend to get weaker—you know, it's not a hundred percent rule, but it generally still applies, even to Marxists. [Laughter]

So, having said that, my conclusion is this, and I want to tie this back to General Scales. So much what he said I thought was very interesting, provocative, so well done, and I agree with so much of it—the idea of a collective, collegial reform, and no grandstanding, and these things. But I also wish to caution that there's very few visionaries out there. He spoke of visionaries, and here, I might disagree with him, especially looking at the German Army and the inner warriors, and you guys could talk about this, of course, by yourselves.

But I don't see armies winning wars relying heavily on visionaries. I see them—in Will's example, particularly—having competent staffs that make changes more gradualistic as they go, and that is a lot—to my mind—the change is all about: It's incremental and it's slow. There are visionaries; there's just no doubt about it. But you don't want to sit back and rely on them.

Well, enough from Curt King. Let's take the questions.

Audience Member
I just have a question about Cadet Command. I noticed on the figures that it provided something like an enrollment of 275,000 on the Junior ROTC program. My question is of that figure, over say the last ten years, what percentage of those cadets have later joined the Armed Forces?

Dr. Coumbe
That's a tricky business. Right now, we're using about 40 percent joining one of the Armed Forces—either enroll in ROTC, enlist in the service, or in some way, keeping a military connection. So it's hovered over the last decade between 40

and 50 percent establish that connection. That can go back to the 1970s—it's always been a very strong connection.

Audience Member
My question is for Dr. Coumbe. Thank you for the presentation. It was nearly as scary as that given by the Canadians yesterday. [Laughter] I must have been in a cave for the last 40 years, but could you explain to me—and this is a straightforward question—what do these so-called brigades and battalions do?

Dr. Coumbe
Well, the battalions, of course, are the ROTC detachment. They train—

Audience Member
Okay. Okay. I understand then. But how about the brigades?

Dr. Coumbe
The brigades exercise oversight. In other words, the brigades manage scholarship allocations, they manage the funds, they allocate the funds. They manage the incentives. They in fact manage everything that the Senior ROTC attachment does—personnel, logistics, and especially, the most important, probably, is the scholarships.

Audience Member
How did that work in the early 1960s? Who did that then?

Dr. Coumbe
In the early 1960s, they didn't have a scholarship program.

Audience Member
Ah. So we've created this monster organization to dole out money. Okay. Thank you. [Laughter]

Dr. King
John, in the back.

Audience Member
Yeah. My question is for Will O'Neil. It might be a bit peripheral, Will, to some of this stuff, or maybe an added layer of complexity, but did your research give you any indications of how these cultures fed their PME graduates back into the PME education system as instructors?

Mr. O'Neil
In both cases, people who were particularly proficient in the course often were retained as instructors. In other words, if you did very well at Leavenworth, you might get to spend another year or two at Leavenworth as an instructor. The more senior positions at Leavenworth tended to be filled by Army War College graduates. In the Japanese case, they also retained particularly high ranking graduates as instructors. More commonly, people who did very well in the Staff College were sent abroad for a year or two of study—very frequently to Germany; that was the most desired; the United States was one of the least desired destinations for that—and then might come back as instructors. But in all these cases, the instructor staff was dominated by graduates of the programs. Now, in the US case, in those days, the war college had some civilian instructors. Another thing that was true was that all of these programs had other service instructors. The Japanese, if you were an Army officer, you did not go to the Navy Staff College and vice versa, but you might go to teach, because the staff colleges taught a certain amount of coordinated—I won't say joint—Army-Navy operations. In the US case, each service sent its personnel to the other services' war college in significant numbers. So far as I know, nobody from the US Navy attended Leavenworth. The Marines went to everybody's, including the French War College—but they were the most ecumenical of the group.

Audience Member
John Lynn, from the University of Illinois. Where I am, the faculty head of the ROTC program there—all three units—and you could tell those who want to have an elite school ROTC program to stuff it. [Laughter] We don't take a back seat to anybody in engineering. The Navy and the Air Force absolutely adore us; the Army does pretty damn well too. And by the way, WARRIOR FORGE is a great program, and I am so proud of the kids we send out there. Okay. [Laughter] Now the question. For Mr. O'Neil: I find what you're saying really fascinating and reached many of the same conclusions. But I think we can underplay some of the technological advantages we had. I'm terribly impressed by that book, *Fire in the Sky: The Air War in the South Pacific*, showing that planes I had thought were just disasters really worked very well in air combat. And it didn't take a second generation of fighters to get that kind of advantage—the Wildcat actually used well; it was a damn good plane. If you give the American technology more credit—and the Japanese infantry weapons often were awful, at times—what does that do to your formula of saying it was all in the command?

Mr. O'Neil
If you look at the aircraft, for instance, what you get is a critical case, and you look at where the 15,000 missing Japanese airplanes go, very few of them fell in

air-to-air combat. So it doesn't make any real difference. Most of them were lost due to operational causes, reflecting inadequate support and logistics, and of the remainder, most were lost either due to air-to-ground or due to anti-aircraft. So the thing that everybody focuses on—and I love Eric Bergerud's book too, and I think it's marvelous—and I think that these things tend to be somewhat deceptive because of the focus on air-to-air combat. Air-to-air combat was a relatively minor killer of airplanes in World War II.

Dr. King
If I can follow up on that in the paper, Will points out also that many Japanese pilots, by midpoint in the war, are out there on the islands, air strips, with their planes, starving—they're emaciated. So their own personal performance is partly failing, due to a logistical system that is falling apart.

Mr. O'Neil
Also, many of them fell to things like malaria—again, reflecting inadequacies of support.

Audience Member
Lieutenant Colonel Vlasak, Department of Military History. You said you also had some information on naval officer developments. If you please briefly address what you see as some of the key distinctions, or differences, between the Japanese Army and Navy's Professional Military Education systems, specifically with regard to their cultural awareness's, as reflected in their language preferences. You hinted at what the Army's prejudices were, but was it any different for the Navy? How do you see that?

Mr. O'Neil
Yes it was. Where the Army had been modeled on the German Army, the Navy had been modeled on the British Royal Navy, so they were a more cosmopolitan force, they tended to be somewhat more internationalist in outlook, where the Army officer wanted to study German, or perhaps Russian—anything but English—the Navy officer was expected to have a knowledge of English, and some of the Navy officers in fact were quite fluent in it. The Army had higher social prestige in Japan for historical reasons, and the Navy tried harder. This was one of the many, many reasons for friction between the Japanese Army and Navy. The two services were competitors for political power in Japan. It lent an element of venom to their conflict that was absent in the US. That is sort of a broad picture of the cultural differences between the two services in Japan. Did I answer your question?

Audience Member
I think so. How did you see that playing out at the highest level of command in terms of decision and strategy?

Mr. O'Neil
Well, one of the things that was very apparent after the war was the Navy was much better at covering it's number than the Army was, so it came off initially with far better press in the West than the Army did. Very few navy officers for instance got tried as war criminals, whereas a great many high level army officers did. During the war, the Japanese Navy's staff culture was a lot like the Army's. It wasn't quite so narrow and elite and so on, but it worked out in very much the same way, and another element of their culture, which I didn't emphasize, but was the very strong element of seniority—you know, you got command when your number came up, more than because George Marshall thought you were really capable of doing this job. That led to some very uneven results. The staff would always carry on—the staff in the Japanese Army always carried on, no matter who was in command. But when the commander was not a strong character, it was ruled by staff, and that showed up a lot.

Audience Member
[Weak audio] —and this is sort of in response to Dr. Lynn's question, that Will's point about operational troops of the PME of the American system, with respect to this issue of how the performance was—particularly in Guadalcanal [inaudible] Campaign, the Sovereigns Campaign—for example, this issue of air crews is a key one—not just their planes, but air crews—and the fact that the Japanese had their operational assets dedicated to the recovery, whereas what the US did, the US had the entire [inaudible] loaded with radar, and they were called Dumbo, and their job was to get these really valuable veteran combat students' brains [inaudible] the Army and Navy out of the water, back to Cactus, and back in the air—and that's an operational maneuver.

Mr. O'Neil
That was something that was concocted at the time. If you're going to talk about transformation, well, that was when combat SAR (search and rescue) got invented. People said, "Geez, we've got pilots who are going down out there, and that's a really important thing to get those guys back, and so we'll figure out a way to do that." They also invented Air Medevac. They said, "Gee, we've got casualties on Guadalcanal. We can't treat them adequately on the island; we can't wait. We've got cargo planes coming in—they're going back empty—let's fill them up with casualties. That was the first aerial Medevac operation. So that was an illustration of the kind of thing that the US culture led to.

Dr. King
Yes, in the back.

Audience Member
In the Navy, currently, for example, when our ensigns graduate college, rather than going to a SWO school, and if they're going to be an engineering officer, going to an engineering school, they're now sending them straight to the fleet, and so you'll have, for example, a 22-year-old ensign with no training commanding a division of engineers, which is setting these young officers up for failure. Then, on the other hand, we now are requiring, for promotion to chief petty officer, that you have at least a two-year degree, and if you want to make senior chief and master chief, you're going to have a bachelor's or master's degree. We're also seeing that we're going to have ships here in the near—combatant ships that are commanded by a master chief, and all the division officers are chiefs and senior chiefs. So there is promotion and training and education at the enlisted ranks. I wonder if the Army is having anything similar, or is this something uniquely Navy? Or if you guys—I don't know if you have any experience that—if you could address that?

Dr. King
I would comment that I was a 21-year-old division officer. [Laughter] In fact, I was a 21-year-old command duty officer on a ship that had about 100 nuclear weapons on it, so I'm not sure I think that you need to have a lot of PME before you go do things like that.

Dr. Coumbe
Well, Curt, if I could back that up, that's a problem that we have in [inaudible] divisions, in terms of who the Navy sends to us for education. I mean, over a period of a couple years, I taught more dentists than I did surface warfare officers. That seems to be an institutional problem within the Navy as to how they regard PMEs [inaudible]. But just a quick kind of—

Mr. O'Neil
PME has never been a high Navy priority.

Dr. Coumbe
Yeah.

Mr. O'Neil
It was higher between the wars than anytime else.

Dr. King
And that is—Art, I was teaching at a college which had its ROTC chapter closed, and I'll tell you, I wept bitter tears when they left—they were a great resource to have on campus. But for Mr. O'Neil, do you have any idea on numbers, or for example, how many PME grads were on the staff in, let's say, the Southwest Pacific, versus their Japanese counterparts?

Mr. O'Neil
The general war in World War II was that nearly every division in the US forces was commanded by an officer who was a graduate of Leavenworth, and/or the Army War College. It would have at least one and often two officers on the staff—usually the chief of staff and the G3 were Leavenworth graduates, and a significant proportion of the regimental commanders were Leavenworth graduates—and that's about as far down as the PME reached. Now, I don't have the bios of the people in the Southwest Pacific. It may have reached a little farther down at that time, simply because we hadn't built up the mass of forces that we were to have later. But that's a good general rule about where the PME trained officers were.

Dr. King
We probably have time for one more question. Sir?

Audience Member
To go back to one thing, about the technical on the boats. The Army boat people did the same thing, where you have warrant officers in command, and the transportation force, basically, there was an awful lot of warrant officers in command, and they pretty much [inaudible]. But my real question goes back to the airmen and junior officers. We have a critical, critical shortage of lieutenants and captains right now in our reserve system—we have over 30 vacancies just in my battalion that we're not able to fill with junior-grade officers. They're not out there, and we're having to go to direct commissionings that do not have the military type background. They may have some enlisted time, they may have a college education, they may be going to vet school, but they don't have the professional military education. But we're so critically short that we're going out and we're having to grow our own officers. So the cutting at ROTC is really showing up, I think, as a Navy right now, what we have—there's not enough officers out there.

Unknown Member
Yeah. We're raising our mission by 600 officers a year, starting next year, so we're attempting to address that.

Dr. King
That concludes the panel.

"Looking In The Mirror: Applying the Scholarship on the Interpretation of US Army Performance in World War Two to Current Operations"

MSG Peter Clemens, USAR

March 2005 marked the end of the second year of combat operations for the US Army in Iraq. Operations continued to defeat the insurgency, improve security, strengthen Iraqi police and military forces, and support a successor government in Iraq. Although the Army remained decisively engaged, interpretation of its performance on the battlefield and in the civil-military sphere has started in the Army and with military analysts, academics, and citizens. While contemporary news accounts and analysis discussing the Army's operations are plentiful, the body of knowledge providing more in-depth discussion and interpretation on these operations has only begun to emerge. In the coming years as more books and analytical articles are published on Army operations in Iraq, different schools of interpretation will result, often providing conflicting conclusions on the successes, failures, key decision points, and missed opportunities. In parallel, assessing the military and political dynamic of its Iraqi and terrorist opponents will provide other references to measure the Army's performance.

The Army has engaged in three distinct campaigns in Iraq, combat operations to topple the Hussein regime, security operations to defeat the insurgency, and civil-military operations to assist the establishment of a democratic Iraq. Interpreting how the Army executed these campaigns will contribute to the emergence of different schools of thought. Two years into the conflict, the first books detailing operations and interpreting the Army's successes and failures have appeared on bookshelves. Many of these early contributions, written by embedded journalists, are haphazard publications and offer little insight into operations. There are, however, a number of noteworthy books—written both by journalists and military professionals—which have appeared: COL Walter Boyne's, *Operation Iraqi Freedom: What Went Right, What Went Wrong, and Why* (2003), GEN Tommy Frank's, *American Soldier* (2004), David Zucchino's, *Thunder Run: The Armored Strike to Capture Baghdad* (2004), *On Point: The U.S. Army in Operation Iraqi Freedom* by the U.S. Army Center for Army Lessons Learned (2004), Rick Atkinson's, *In the Company of Soldiers* (2005), and Katherine Skiba's, *Sister in the Band of Brothers: Embedded with the 101st Airborne in Iraq* (2005). Focused on the campaign to dispose the *ancien regime*, these works offer little on the fight against the insurgency or the civil-military campaign. Nonetheless, they mark the first efforts in what will become a flood of books and articles interpreting the Army's operational performance.

To provide the intellectual background necessary to understand and contribute to the debate on how the Army did in Iraq, Army professionals would be well served to become acquainted with the literature of another debate concerning Army performance. For sixty years, a virulent discussion has existed on the question, "In the Mediterranean and European Theaters of Operation (MTO and ETO) during 1944-1945, who were better soldiers, the Germans or the Americans?" To understand the tenets of this discussion and apply them to operations in Iraq, professional soldiers and analysts should review some of the significant books and articles which have contributed to this discussion over the decades. The complexities in interpreting how the Army performed in 1944-1945 can serve as a guide to a new generation grappling with challenge of understanding how the Army performed in Iraq.

The paragraphs that follow are not intended as a comprehensive review of the literature on the Army in the MTO and ETO, but instead highlight what are considered the significant schools of thought and some of the important books and articles on this subject. A definitive interpretation on how the Army executed its missions in Iraq will not be arrived at quickly. Instead, like its World War Two predecessors, the debate will likely continue for decades as political and emotional views of the conflict evolve, new information is revealed, and differing schools of thought emerge.

In the MTO/ETO during 1944-45, who were better soldiers, the Germans or the Americans?

This contentious debate has resounded for six decades. Unlike twenty years ago, the interpretation that the Wehrmacht was the superior force no longer dominates how performance of the US Army is considered. For the four decades following 1945, Wehrmacht martial superiority remained the principal interpretation on US Army performance and not until the mid-1980s did a paradigm shift begin lending to a more favorable explanation on the performance of the US Army in the MTO and ETO.

Interpretation of the US Army's performance against the Wehrmacht was controversial before the guns fell silent in 1945. At the war's close many positive histories appeared on the US Army's performance, namely memoirs of senior participants, and divisional and unit histories. These works, generally short on documentation, lacked academic rigor and balance. Most unit histories were pictorial in nature, long on anecdotes, and prepared by unit Public Affairs officers. These works presented a theme of admirable performance of the US Army against its German opponent.[1]

Despite winning the war, the decline of the US Army's reputation vis-à-vis the Wehrmacht began early. Degradation of the US Army's performance and the inflated image of the Wehrmacht was "complex in origin."[2] The notion of Wehrmacht superiority traced its roots to wartime, when it was convenient to exaggerate German capabilities as a ready explanation for the ineptness of defeated British, French, and American commanders and troops. Furthermore, the abundance of anecdotal stories by American veterans describing military incompetence and debacles reinforced a view the American military was an institution afflicted by the wartime acronym SNAFU.[3]

From a historiographical standpoint, the records and individual experiences of the German and American armies available to historians were vastly different. American records were substantial bodies of correspondence, anecdotes, and interviews, from all ranks. Conversely, German records were narrower based, principally official Wehrmacht records and the testimony and memoirs of senior German officers. Very little material from mid and lower level German officers and soldiers were available, a gap that left undisclosed German accounts of their own failings, incompetence, weaknesses, and atrocities. In popular literature, the publication of Liddell Hart's, *The German Generals Speak* in 1948 and the appearance by the early 1950s of many senior German officers' memoirs successfully put forth an interpretation of German martial prowess, tactical superiority, and better battlefield performance versus all their adversaries. German defeat was explained away by the brute strength of overwhelming Allied numbers and materiel, and the idiotic decision-making of Adolf Hitler. Politically, these histories resonated well in the emerging Cold War period given the necessity to rehabilitate Germany as an integral part of the North Atlantic Treaty Organization.[4]

Perhaps the most important academic book critical of US Army performance came from within the ranks of the Army itself. In 1947, Colonel S.L.A. Marshall's *Men Against Fire*, contended that less than one-quarter of American infantrymen ever fired their weapon in battle and American infantry units were notorious for failing to gain fire superiority over the enemy, resulting in their inability to close with and destroy enemy forces. Given Colonel Marshall's credentials as Deputy ETO Historian and supposed exhaustive research methods and company-level interviews, Marshall's thesis remained relatively unchallenged for decades.[5]

The degradation of US Army performance in World War Two reached its zenith in academic circles, popular history, and the US Army during the early 1980s, and was reflective of the anti-Vietnam War backlash the Army experienced.[6] Three highly regarded works gave further academic foundation to this pro-Wehrmacht interpretation. Trevor Dupuy's *Numbers, Predictions, and War* published

in 1979, applied statistical analysis to the outcomes of 81 combat engagements between the American and German armies in 1943 and 1944. He assigned quantitative factors to these engagements' variables, i.e. "offensive/defensive posture, logistics, weather, terrain, communications, firepower, relative numerical strength, equipment, morale and leadership."[7] These numeric factors were inputted into the Quantified Judgement Model (QJM) and then applied to the engagements. The results indicated the Wehrmacht was between 20% and 40% more effective than their American counterpart, which Dupuy attributed to superior German utilization of manpower, battle experience, superior tactical doctrine, leadership, discipline, and battle drill.[8]

Two years later Russell Weigley's *Eisenhower's Lieutenants* appeared. Now considered a classic, this work gave the US Army "faint praise,"[9] asserting that its divisions lacked sufficient combat power to engage in a war of attrition against the Wehrmacht. Weigley argued,

> "Pitted against the German Army, the United States Army suffered long from a relative absence of the fine honed professional skill of the Germans, officers and men, in every aspect of tactics and operations….. the German Army remained qualitatively superior to the American Army, formation for formation, throughout far too many months of the American army's greatest campaign. In the end, it was its preponderance of material resources that carried its army through to victory in World War Two."[10]

Following the next year, Martin van Creveld's *Fighting Power* argued combat superiority of the Wehrmacht derived from its small-unit cohesion, training, tactics, and battlefield leadership. Van Creveld asserted the US Army held a managerial view of war, considered its soldiers as replaceable cogs, and imposed an individual replacement system that destroyed unit cohesion. In van Creveld's opinion, the American infantry and officer corps was totally outclassed by the Germans on the battlefield.[11]

Not all military professionals and historians accepted this interpretation, however. In 1986 the first of John Sloan Brown's writings[12] were published which challenged this pro-Wehrmacht interpretation by arguing the performance of the US Army in the MTO and ETO was much better than previously believed. Brown intended his writings to initiate debate, believing that, "The mythology of German combat superiority is deeply rooted. It will be some time before it has been objectively reconsidered."[13] His first article, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority: A Reconsideration," published in January 1986 in *Military Affairs* (aka *Journal of Military History*), set out to correct

the unrelenting notion of Wehrmacht superiority in aspects of tactics, leadership, training, discipline, weapons, and battlefield performance. Since the 1940s Brown believed, the interpretation of Wehrmacht superiority, both in academic forums and within the US Army, left many believing the US Army only succeeded in defeating the Wehrmacht through application of overwhelming numbers and firepower—brawn with little finesse.[14]

In what became a series of point/counterpoint *Military Affairs* articles, Brown critically evaluated Dupuy's book *Numbers, Prediction, and War*. Brown questioned what he termed "the mythology of German combat superiority."[15] In challenging the statistics Dupuy used to justify his thesis of Wehrmacht superiority, Brown's criticisms focused on two issues. First, he believed the sample of engagements analyzed by Dupuy was skewed toward battles involving elite German panzer and panzer grenadier divisions. While these units were less than 15% of the Wehrmacht's strength, Brown asserted these units appeared in Dupuy's sample set at three times the rate they should. Dupuy's analysis, Brown believed, compared the elite of the Wehrmacht against the entire US Army.[16]

Second, Brown was concerned that Dupuy's QJM statistical model incorrectly factored the variables of defense, and artillery and air support. He believed QJM underestimated the tactical advantages of the defense by a factor of two. Given that the Wehrmacht fought 90% of its engagements in the West on the defense, determining an accurate numerical factor was critical to QJM being predictive. Conversely, Brown argued QJM rated the effectiveness of artillery and air support too high, giving American divisions more offensive power than they really possessed. To demonstrate how the QJM was capable of different results, Brown carefully adjusted the numeric variables for defense, artillery, and air support. The results from these changes in QJM generated radically different results, showing a qualitative edge of American divisions against their German counterparts, exactly opposite of Dupuy's thesis.[17] Brown concluded:

> "Colonel Trevor N. Dupuy's painstakingly acquired historical data is an invaluable contribution. Appropriately analyzed, it offers convincing evidence that American divisions of 1943-1944 were more efficient than their German counterparts man for man, weapon for weapon, and asset for asset. This opens a new paradigm. A conventional explanation for American World War Two victories was overwhelming quantitative advantages. Colonel Dupuy's data suggests quantitative advantages were not sufficient to offset the difficulty of assigned missions, and Americans summoned up a qualitative edge as well."[18]

A first-rate scholar, Brown could not be ignored and simply dismissed as a crank. A 1971 graduate of the US Military Academy, he trained as an Armor officer. As a Captain, he attended the University of Indiana, earning a PhD in History in 1983. As a Major, he finished the US Army Command and General Staff College (CGSC) as an Honor Graduate.[19] From his academic work at Indiana and CGSC, Brown wrote *Draftee Division*, a well-researched scholarly work on the history of the 88th Infantry Division, the first of the conscript American infantry divisions to see extensive combat. The 88th Division was part of the US Army's bold 90-division plan to expand the 1940 Army of nine Regular Army divisions and 18 National Guard divisions into a mix of infantry, armor, and airborne divisions capable of defeating the Axis Powers.[20] By 1945, of the Army's divisional combat maneuver units, nearly half were so-called Draftee Divisions, composed of a thin crust of regular career soldiers, the rest being conscripts and wartime officer candidates. Brown traced the 88th Division from initial mobilization, through its training, and deployment to Italy where in 1944 and 1945 it achieved a fine combat record. He believed the 88th Division was representative of how the War Department's Mobilization Training Program successfully produced combat ready infantry divisions superior to their German counterparts.[21] "With good leadership, sound training both in the United States and overseas, and a solid logistical structure behind it, the 88th Division was an example of the American mobilization system at its finest."[22]

Brown's writings were the first serious scholarly attack on the accepted thesis of Wehrmacht superiority and his writings had their desired effect, they initiated debate. In a later issue of *Military Affairs*, Colonel Dupuy published an article to rebut Brown's criticisms titled, "Mythos or Verity? The Quantified Judgement Model and German Combat Effectiveness."[23] After Colonel Dupuy explained the basis of his analytical methodology and conclusions of Wehrmacht superiority, he countered Brown's criticisms. Dupuy staunchly defended his methodology, data collection, and quantification of the battlefield. But in this Dupuy had mixed success, for it was evident that in devising his statistical factors for the QJM, human judgement was necessary, judgements that despite Dupuy's best efforts were interpretation and translation of historical data into numeric factors. In the end, Dupuy remained unconvinced by Brown's arguments and contended the US Army achieved victory through brute strength and not tactical prowess.[24]

Military Affairs published two more point/counterpoint articles, one by Brown in the July 1987 issue titled, "The Wehrmacht Mythos Revisited A Challenge for Colonel Trevor N. Dupuy."[25] In this article Brown reiterated his criticisms of the QJM methodology, but believed these inaccuracies were correctable. He challenged Dupuy to re-run the QJM with a more accurate, representative set of data and to adjust the numeric factors regarding defense, artillery, and close air sup-

port. Brown remained confident that these adjustments to QJM would show the US Army's combat effectiveness was equal, if not superior to the Wehrmacht.[26] In the October 1987 issue, Colonel Dupuy countered these challenges in his article, "A Response to the Mythos of Wehrmacht Revisited."[27] He flatly refused to take up Brown's challenges and dismissed them as having no merit.[28]

With these articles, the two years of debate in *Military Affairs* ended. Besides entertaining readers, what was accomplished? Brown, with *Draftee Division* and his *Military Affairs* articles, had forcefully advanced a new interpretation more favorable to the US Army's performance. Brown's well-reasoned writings were the beginning of a paradigm shift in how the performance of the US Army was viewed. Within a few years a number of highly regarded scholarly books emerged building on Brown's interpretation. Of note were Joseph Balkoski's fine divisional history on the 29th, *Beyond the Beachhead* (1989), Michael Doubler's, *Closing With the Enemy* (1994), *When the Odds Were Even* (1994) by Keith Bonn, Richard Overy's, *Why The Allies Won* (1996), *The GI Offensive in Europe* (1999) by Peter Mansoor, Robert Rush's, *Hell in Hürtgen Forest* (2001), and Rick Atkinson's, *An Army at Dawn* (2002).[29]

These works discounted the interpretation that the US Army won by brute strength alone. Noting the US Army generally lacked overwhelming strength to defeat the Wehrmacht, it relied on innovation driven from the lower ranks of enlisted and officers, adaptability, standardized thorough training of its soldiers, mobility, and superior logistical support. The US Army generated a tremendous amount of combat effectiveness from its 90-division force, and given the relative smaller size of this force compared to its adversaries, the Americans were compelled to maintain it at a high-level of capability to endure nearly continual combat operations. As Peter Mansoor states, "The ability of the American Army to sustain its efforts over an extended campaign tipped the balance in Western Europe."[30] The US Army, these authors contend, achieved victory by applying relentless pressure through constant, aggressive operations.

Contributing to the debate on interpretation of the Army's performance was the appearance of *Military Effectiveness*, a three-volume series published in 1988. Edited by two well-versed and widely published military historians—Williamson Murray and Allan Millet—different authors offered interpretations on how effective the major belligerents' militaries were during the first half of the 20th Century. The first two volumes of the series dealt with the First World War and the Interwar years respectively and provide an underpinning to understanding how the warring powers performed in the Second World War, the subject of volume three. Each chapter discusses and interprets how effective a belligerent was at the different levels of war—political, strategic, operational, and tactical.

Allan Millet prepared the chapter on the United States in the Second World War, a daunting challenge covered quite well within 45 pages. While generally praising the United States' effectiveness at the political, strategic and operational levels, Millet argues a middle ground between Brown and Dupuy when discussing Army tactical effectiveness in Europe. In addressing the complex issue of tactical effectiveness, Millet notes two significant factors: the pace of operations, and combat motivation and initiative. After a relatively quick and expansive mobilization of the Army from 1942 to 1944, the "actual test of battle revealed a need for rapid adaptation that the armed forces could not easily perform within a strategic context that stressed a rising crescendo of offensive operations. The pace of combat against both Germany and Japan in 1944 meant that casualties among American ground combat divisions made tactical improvement a difficult task."[31] The author notes the over commitment of ground forces in sustained operations and the difficulty integrating trained replacements—especially junior officers and NCOs—into units before combat, hobbled the tactical effectiveness of many units.[32] Millet's chapter provides a comprehensive overview on the factors contributing to understanding the difficult concept of military effectiveness, and while our campaigns in Iraq are not simply a replay of 1944, nonetheless for military professionals his article puts forth many points to consider when analyzing current operations.

A Mirror on Army Operations in Iraq?

Do the lessons of the Army in the MTO/ETO apply to interpreting operational performance in Iraq? Certainly. Military professionals and analysts now face many of the same challenges in understanding how well the Army executed its multiple campaigns in Iraq as did their predecessors in interpreting how the Army performed in the MTO/ETO. As literature on the current conflict emerges, Army professionals and analysts must be intellectually equipped to critically review what is being published and the conflicting interpretations they present. Judging writing on accuracy and intellectual honesty can only result when readers possess the ability to discern fact from fiction, recognize when data is manipulated, and understand when interpretations are flawed due to personal agendas. Applying intellectual rigor to the emerging historiography on Army operations in Iraq remains a daunting challenge. Understanding the critical issues faced by our predecessors when they interpreted the Army's performance in the MTO/ETO will provide this generation of military professionals an intellectual guide to evaluate Army operations in Iraq. After six decades of heated discussions, varied schools of interpretation exist on how the Army performed in World War Two, and no definitive answer has yet to emerge. Interpreting the Army in Iraq will likely prove just as difficult.

Notes

1 Despite the lack of intellectual rigor in many divisional histories, it is noted that one of the more exceptional histories was prepared in 1949 on the ill-fated 106th Infantry Division, R. Ernest Dupuy's, St. Vith, Lion in the Way (Russell Weigley, Eisenhower's Lieutenants, (Bloomington: University of Indiana Press, 1981), p. 761.)

2 John Sloan Brown, Draftee Division: The 88th Division in World War Two, (Lexington: University of Kentucky Press, 1986), p. 168.

3 Brown, Draftee Division, p. 168-169; and Peter Mansoor, The GI Offensive in Europe: The Triumph of American Infantry Divisions, 1941-1945, (Lawrence, Kansas: University of Kansas Press, 1999), p. 6.

4 Brown, Draftee Division, p. 168-169; and Mansoor, The GI Offensive in Europe, p. 6.

5 Mansoor, The GI Offensive in Europe, p. 6.

6 This pro-Wehrmacht interpretation touting German martial prowess found it way into the widely-read popular history books written during this decade, namely John Keegan's The Second World War (1990), Max Hasting's Overlord (1984), and John Ellis' Brute Force (1990).

7 Mansoor, The GI Offensive in Europe, p. 6.

8 Mansoor, The GI Offensive in Europe, pp. 6-7.

9 Mansoor, The GI Offensive in Europe, p. 7.

10 Weigley, Eisenhower's Lieutenants, pp. 729-730.

11 Martin van Creveld, Fighting Power: German and U.S. Army Performance, 1939-1945, (Westport: Connecticut: Greenwood Press, 1982), pp. 4, 33, 79, 168.

12 Brown, Draftee Division; John Sloan Brown, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority: A Reconsideration," Military Affairs, January 1986, pp. 16-20; and John Sloan Brown, "The Wehrmacht Mythos Revisited: A Challenge for Colonel Trevor N. Dupuy," Military Affairs, July 1987, pp. 146-147.

13 Brown, Draftee Division, pp. 174-175.

14 Brown, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority," pp. 16-20.

15 Brown, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority," p. 20.

16 Brown, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority," pp. 17-19.

17 Brown, "Colonel Trevor N. Dupuy and the Mythos of Wehrmacht Superiority," pp. 17-19.

18 Brown, Draftee Division, pp. 174-175.

19 Major Brown was promoted to Brigadier General. From 1998 to 2004, he was the commander of the US Army's Center for Military History.

20 To put development of the US Army's combat power in perspective, German rearmament began in 1933 with Hitler's ascension to power. Despite the extraordinary devotion of national resources and the excellent base of cadre from the Reichswehr, the Wehrmacht as late as 1938 was still not ready for war. Conversely, the United States did not begin its rearmament until July 1940. In just over two years, the Americans began deploying divisions for combat in North Africa and the Pacific, and by 1944 it had fielded most of its 90-division force at distances greatly in excess required of European armies. (Sources: Williamson Murray, The Change in the European Balance of Power, 1938-1939: The Path to Ruin, (Princeton, NJ: Princeton University Press, 1984), p. 219; and Mansoor, The GI Offensive in Europe, p. 13.)

21 Brown, Draftee Division, pp. 2, 10-11.

22 Mansoor, The GI Offensive in Europe, p. 8.

23 Colonel T.N. Dupuy, "Mythos or Verity? The Quantified Judgement Model and German Combat Effectiveness," Military Affairs, October 1986, pp. 204-210.

24 Dupuy, "Mythos or Verity," p. 209.

25 John Sloan Brown, "The Wehrmacht Mythos Revisited: A Challenge for Colonel Trevor N. Dupuy," Military Affairs, July 1987, pp. 146-147.

26 Brown, "The Wehrmacht Mythos Revisited," pp. 146-147.

27 Colonel Trevor N. Dupuy, "A Response to 'The Wehrmacht Mythos Revisited,'" Military Affairs, October 1987, pp. 196-197.

28 Dupuy, "A Response to 'The Wehrmacht Mythos Revisited'" pp. 196-197.

29 Mansoor, The GI Offensive in Europe, pp. 8-9.

30 Mansoor, The GI Offensive in Europe, p. 6.

31 Williamson Murray and Allan R. Millet, editors, Military Effectiveness, Volume 3: The Second World War, (London: Allen & Unwin, 1988), p. 78.

32 Military Effectiveness Volume 3, p. 83.

Clemens Slide Addendum:
Applying the Scholarship on the Interpretation of US Army Performance in World War Two to Current Operations

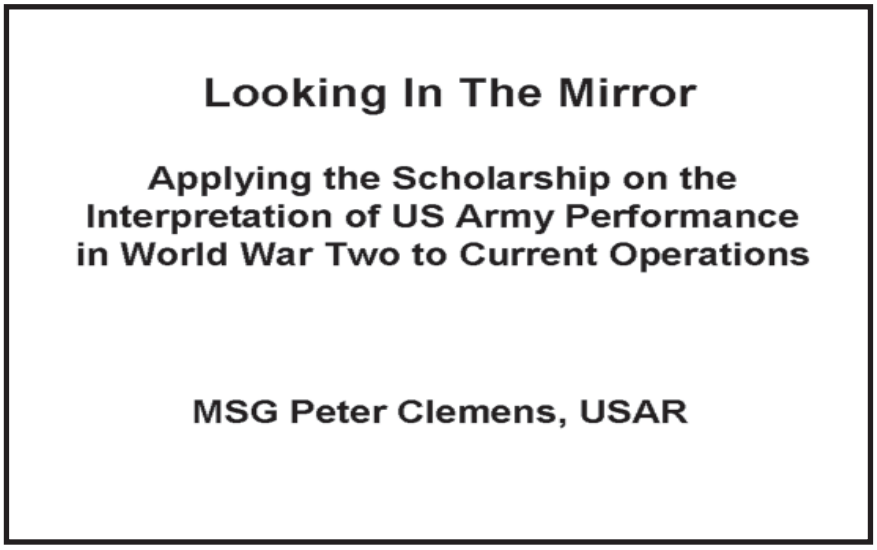


Figure 1

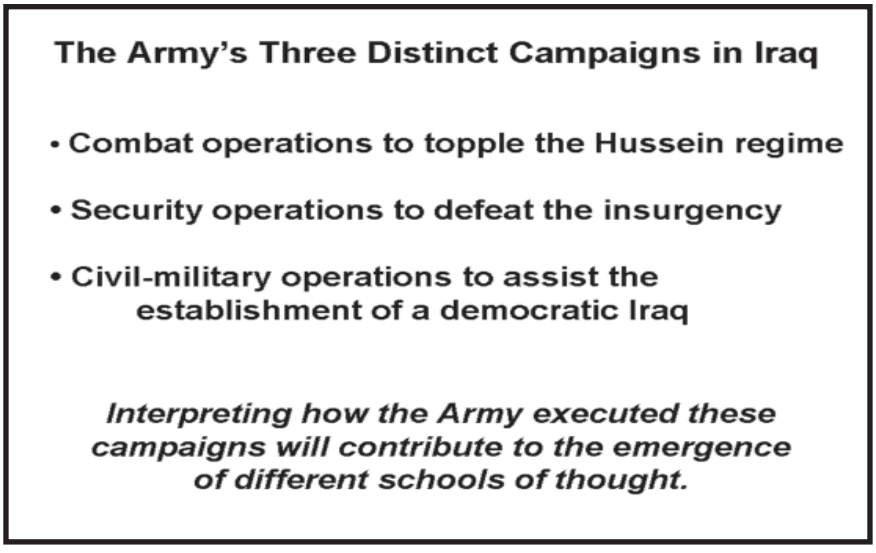


Figure 2

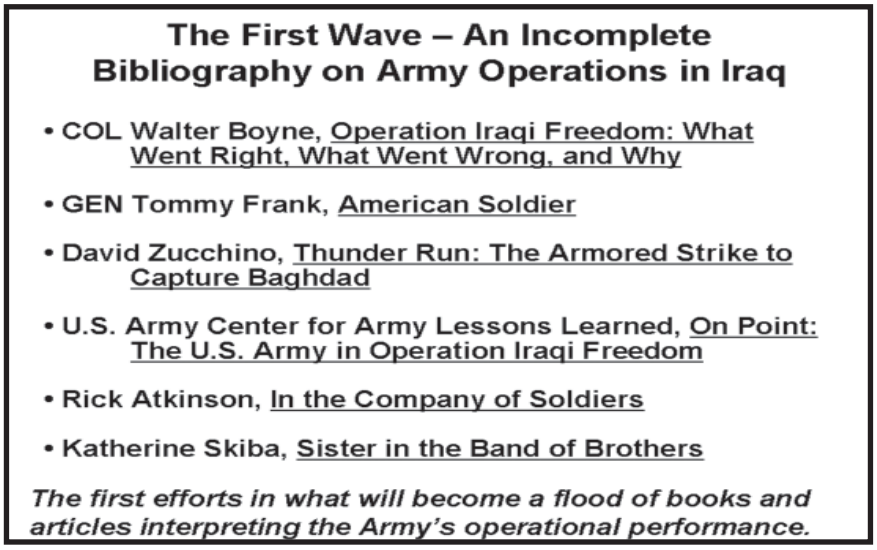


Figure 3

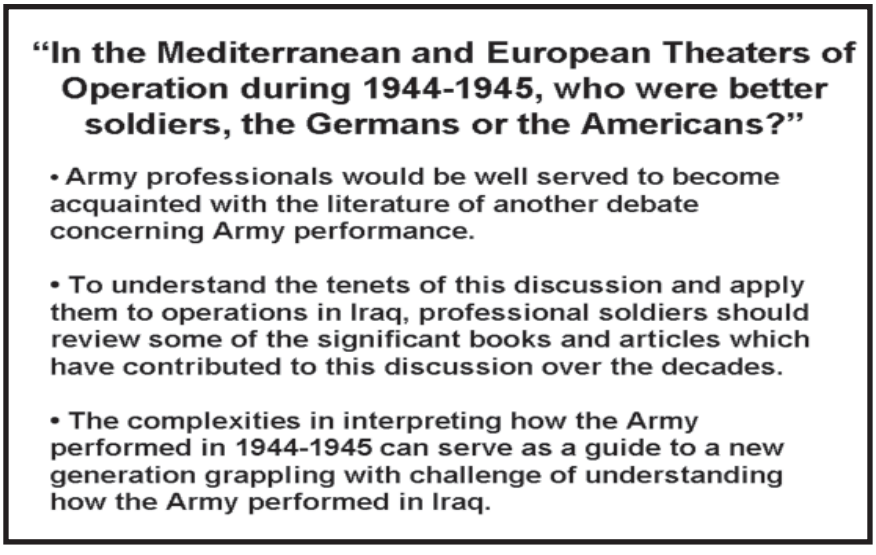
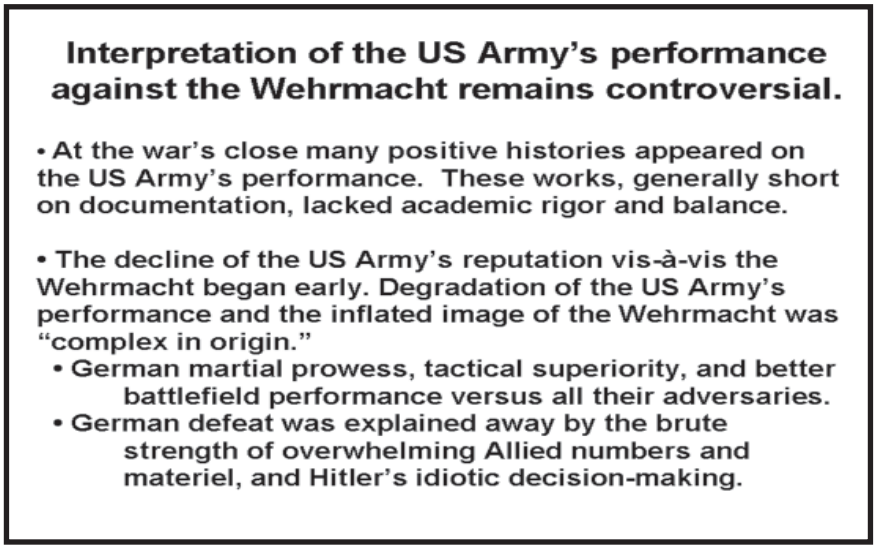


Figure 4



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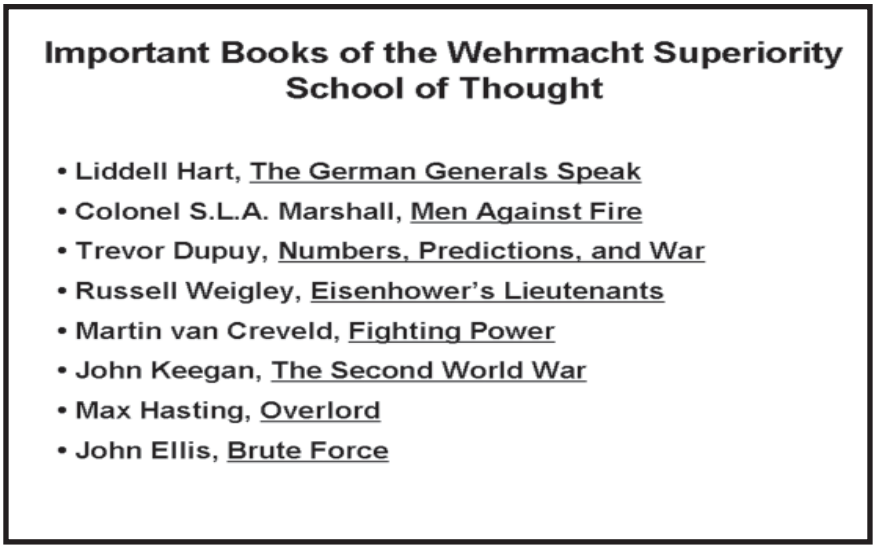


Figure 6

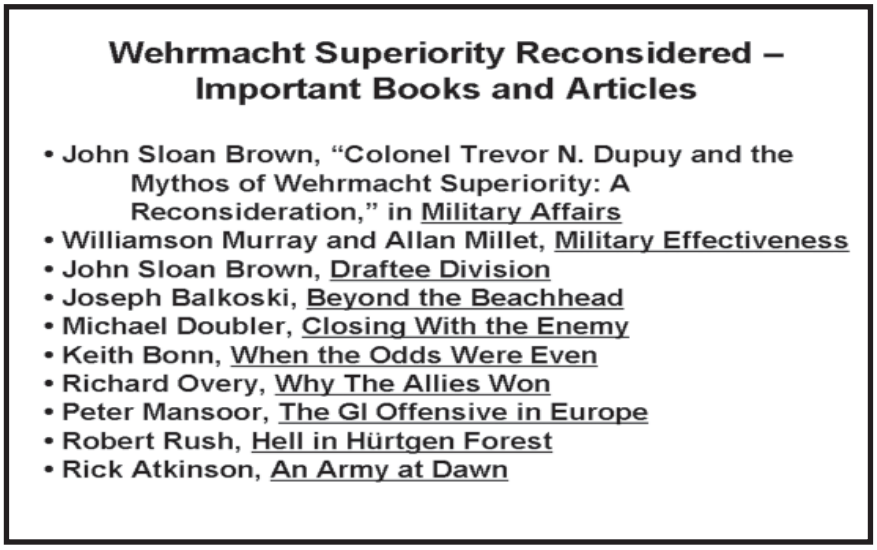


Figure 7

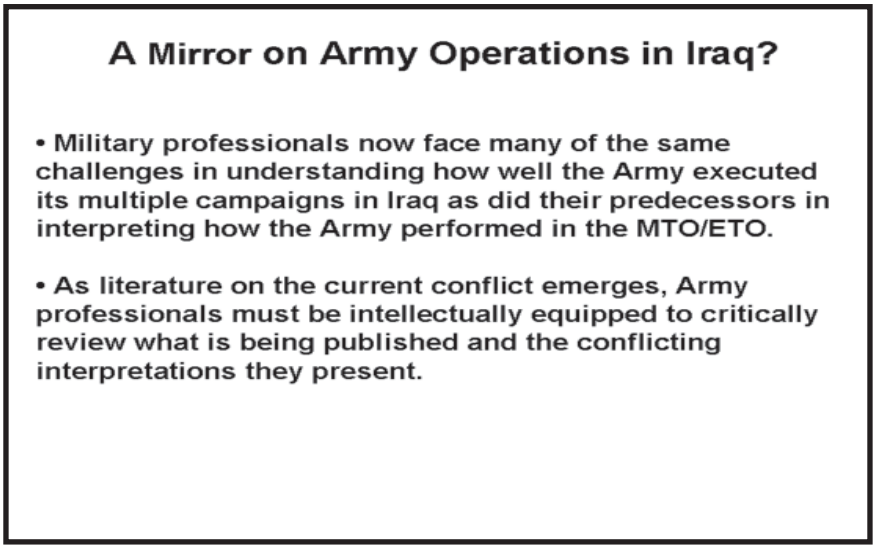


Figure 8

DOCTRINE IN THE POST-VIETNAM ERA: CRISIS OF CONFIDENCE

Christina Madsen Fishback

> *"I think it is so important to improve the quality of what we are doing by a magnum jump…I want to really leave in your mind a mission of doing it better…of establishing standards and enforcing them, of making people do it again if they are wrong…we will contribute and save lives and have a better Army and it will take years for this to percolate all the way…believe what you are doing, don't believe what I say."*[1]

On June 7, 1973, Lieutenant General William DePuy stood before soldiers at a briefing he delivered at Fort Polk, Louisiana prior to his appointment as the commander of the Training and Doctrine Analysis Command (TRADOC). He talked at length about the state of affairs within the army and discussed his mission as the new TRADOC commander charged with reorganizing the Army in the post-Vietnam era. DePuy's tenure at TRADOC lasted from 1973 to 1977. DePuy exited gracefully with a legacy earning himself a place as one of the most influential military figures of the 20th Century.

The 1976 Field Manual 100-5, Operations became the point of reference of DePuy's career legacy. Doctrine, in DePuy's mind was what provided the "blueprint" that directed forces in battle.[2] DePuy came to believe that doctrine had the most significant impact on the way the Army would fight in war. DePuy believed that the Joint Chiefs of Staff or the Office of the Secretary of Defense ought not to be involved in the business of writing doctrine. Far removed from the actual fighting forces the JCS and OSD, according to DePuy, should allow those doing the fighting to write the doctrine themselves. DePuy proved less visionary when he conceptualized the intellectual development of the officer. He viewed moral and intellectual skills as a desired *supplement* to adequate training to command, but not as a necessity.

DePuy's legacy is apparent in today's Army. Although DePuy is portrayed by scholars of the period as being rigid in his approach to writing a new doctrine, it is important to remember the feeling and attitudes of the Army at the time as well as the spirit DePuy brought to rebuilding the Army was through a new vision.

In this paper, I intend to discuss the influence that this doctrine and the response to it had in the post-Vietnam Army. Specifically, the shift of doctrine to a conventional paradigm breathed new intellectual life into an institution in crisis. Secondly, I will discuss how the shift toward conventional doctrine after Vietnam came about and address current scholars' criticism that those who wrote and

conceived doctrine in the years after Vietnam did not have the foresight to face the Army's fear of unconventional war. Regardless of criticisms, this was a very positive and inward looking time for the Army. Finally, I will discuss the implications for the current Army. While examining the period after the Vietnam War, I will refrain from making any comparison between the two conflicts, but see them as connected through the legacy of the doctrine of the post-Vietnam era. The will that propelled the Army to rebuild after the Vietnam War is being tested once again, and the question of how, and if, the Army's doctrine is serving the Army's interests is being raised yet again. Is the Army capable of being more flexible and finally facing the demons of its past?

At the end of the Vietnam War, the United States Army stood on the brink of a major organizational change. This change ushered in a new era for the Army and resuscitated a force hollowed by a near decade of combat in the jungles of Vietnam. There began a shift within the Army to reform and rebuild the organization, doctrine being one of the starting points. Doctrine became crucial in the 20th Century American Army because of the "authoritative fundamental principles by which military forces guide their actions…when well conceived and clearly articulated, doctrine can instill confidence throughout and army."[3] Newer and more lethal technology and equipment placed stronger emphasis on exploiting the best way to train with and employ weaponry. A new doctrine would infuse life into the Army's new mission statement.

The Vietnam conflict officially ended in 1975, but the withdrawal of troops began much earlier. The negative fallout from the conflict already had a crippling effect on the post-Vietnam Army. Repeated stories of fraggings, illicit drug use, atrocities such as My Lai, and the American public's loss of faith in the military tarnished the Army's image after Vietnam. The Army desperately needed release from the shadows of the conflict. The answer came in the resuscitation of traditionally held notions of honor, professionalism and discipline. Because of the all-volunteer Army in 1973, senior leaders felt it was paramount to lure the most skilled and principled candidates. The Army ultimately wanted to package a philosophy appealing to thoughtful and determined young citizens who would adopt the profession of arms. The package that the philosophy came in was a new revitalized doctrine.

The United States Training and Doctrine Command (TRADOC) became the agency that gave direction to the Army for all matters concerning doctrine. TRADOC was born on 1 July 1973, commanded by General William DePuy, at Fort Monroe, Virginia. "Men come and go, weapons change, but doctrine is constant."[4] DePuy believed that doctrine united forces into a strong, organized and synchronized Army. Doctrine was the linchpin of the new Army vision, at least in DePuy's mind. TRADOC existed to develop and oversee programs of training

reform; weapon, equipment and force modernization, and doctrine revision.[5] An organizational movement in the Army known as STEADFAST in 1973 broke essential Army commands into different sub-command groups in an effort to avoid micro-management and in-fighting that occurred within the command structures during the previous decade. The restructuring helped to isolate duties and talents of commanders who best suited the positions. It also represented a psychological house cleaning after the Vietnam War, experimenting with the hope that efficiency and a well-ordered Army would produce much needed results.

At the helm of the reform movement was General Creighton W. Abrams and his Assistant Vice Chief of Staff Lieutenant General DePuy. The reorganization established that command of TRADOC involved the designation of a four-star general to command the new bureaucratic body, focusing on training, teaching and developing doctrine in the Army.[6] Under TRADOC's command umbrella were the Army's training centers for basic courses, intermediate-level centers, the Army's branch schools, specialist schools, military schools and colleges, Army ROTC, and analytical and war gaming activities.[7] DePuy took command of the newly formed TRADOC in 1973 emphasizing the need to be better prepared to fight and win the next war.

DePuy outlined his vision long before he took command of TRADOC, steadfastly advocating a trinity of goals he felt necessary to achieve the aggressive, lethal force he desired to see in the Army. Research and development; organization, training and education; and doctrine represented the most important aspects of DePuy's vision of the essentials to bring about a modern Army. FM 100-5 held significance, not only because it immediately revolutionized the Army, but also because it set the minds of officers ablaze with the possibilities that new doctrine brought—or didn't bring.

A key factor that shaped the new conception of doctrine was the Arab–Israeli conflict. The Israeli conflict signaled a return to large-scale conventional warfare. The service journals following the Arab-Israeli War in 1973 showed a surge in critical analyses of the war and its implications for the American Army appeared in publications such as *Parameters*, *Army*, and *Military Review*.

On the development side of the house, DePuy spearheaded the expansion of technology in the armor and aviation branches. After the Arab–Israeli War, the lethality of weapons and the high levels of firepower revolutionized technology. The Army searched for new, more lethal battle helicopters that complimented armor and infantry in battle. The Black Hawk and Apache attack helicopters spent the 1970s in development due in large part to the urgings of DePuy. The armor branch also experienced a revitalization of technology. Some of the heavy tanks that emerged in the 1970s carried the Abrams name: the M1 and the M2 and M3 Bradley fighting vehicles.[8] These technologies developed with the concept of a

smaller, more lethal force capable of overcoming superiority in numbers with superiority in technology and materiel. With new equipment and technology came new ways of fighting and new ways of training.

DePuy emphasized more than anything else in his early years as commander of TRADOC the importance of training. One of his proteges, Donn A. Starry, an armor commander, discussed with DePuy the necessity of cooperation between armor and infantry troops. DePuy was Starry's superior and many traditional infantry officers criticized DePuy for being Starry's disciple. DePuy, however, appreciated the concept of a mobile infantry force that had the addition of armor. Mechanized infantry benefited from both increased protection along with a higher degree of flexibility and mobility. His foresight in this arena has lasted to this day in mechanized infantry units.

In order for infantry and armor units to gain the most out of training, respective branch schools existed already in 1973. DePuy wanted to refocus the schools, emphasizing the training of young armor officers to become familiar with the work each member of a unit did on the tanks and equipment used. He believed the training of armor officers to be inadequate. DePuy observed the training young officers received prior to their taking command of a platoon or company. At the officer basic course, they were being trained to be company commanders before taking a platoon leaders position; and at the advanced course, officers were being taught to command battalions instead of commanding companies. DePuy believed in training officers for what they were preparing to do, not for jobs they would not take until later in their careers.[9] He stood by the conviction that training officers and soldiers alike ought to get the "most out of the mechanisms they have inherited."[10] DePuy saw the Army as having functioning parts, and each part had a manual much like buying a "lawn mower and you get a little booklet that tells you how to put it together and how to operate the thing."[11] To reduce command to following basic rules and principles set forth in a universally used manual seemed to him an ingenious concept.

DePuy decided to write and act as editor of the doctrine within his first couple of years as TRADOC commander and expedited the process by making deadlines. He remained an active participant in the writing of the manual at every step of the way. DePuy and Starry had been successful in bending the ears of a majority of commanders who endorsed the new changes in doctrine. To write the new doctrine, DePuy consulted the Combined Arms Center (CAC) at Fort Leavenworth Kansas. DePuy approved the selection of Major General John H. Cushman as commander CAC. Several students at the Command and General Staff College were asked by Cushman to participate in discussions about the new doctrine. Cushman and DePuy expressed different ideas about how best to foster the creative process. Cushman believed in allowing more freedom for creative

momentum while DePuy thought that the officers writing doctrine ought to be kept under his own tight supervision.[12]

The work done on doctrine at this critical juncture produced two schools of thought: the DePuy school, and the Cushman school. The DePuy school "held that the institutional purposes of doctrine were as important as its substance and that doctrine should therefore be simple, clear and specific."[13] The Cushman school on the other hand, stated that the "substance of the doctrine was more important than its institutional purposes…doctrine's only requirement was that it 'stand the test of actual combat.'"[14]

The lively debates among the schools of thought did not hamper DePuy's vision of what he wanted the doctrine to be in the end. Cushman's manual was never published. DePuy desired a break with the past and saw Cushman's manual as one that resembled the boring presentation and language of the older field manuals. DePuy was determined to dazzle with bold and crisp words to articulate the new doctrine. DePuy showed displeasure with the outcomes of the Leavenworth written manual and urged a rewrite. When Cushman emphasized the difficulties of drafting a new manual and disagreed on fundamental issues such as how the doctrine should function, DePuy opted to write an outline himself and enlist the help of other general officers, most specifically Starry.[15] In 1976, the publication of the doctrine manual generated both negative and positive reactions from military leaders and thinkers.

The final product of FM 100-5 reflected the lessons observed from the 1973 Arab–Israeli War. The doctrine emphasized the substitution of firepower over manpower in the event that a force was outnumbered, joint operations with the Air Force, and integration of new weapons systems and technology.[16] Active defense provided supreme mobility and maneuverability to concentrate efforts.[17] Beyond all else, the manual recognized the "new lethality" of the battlefield.[18]

The Army's strategic outlook was clear in the manual—that the Army should be prepared to fight and win in the initial stages of battle or be defeated.

> …the first battle of our next war could be its last battle…This circumstance is unprecedented: We are an Army historically unprepared for its first battle. We are accustomed to victory wrought with the weight of materiel and population brought to bear after the onset of hostilities. Today the US Army must above all else, *prepare to win the first battle of the next war*.[19]

Many within the Army had trouble with the tactical aspects emphasized. The new doctrine fueled an intense debate after publication. Critics complained that the Active Defense did not take into account that the mobility and maneuverabil-

ity were limited by what was known of Soviet tactics at the time.[20] Additionally, the doctrine did not acknowledge the problem that nuclear capabilities would pose. The doctrine was a "radical departure from the Army's operational tradition, but [sic] underestimated the key elements of depth, maneuver and initiative, and it paid insufficient attention to the human element in battle."[21] The doctrine put a premium on the "new lethality" as well as new technology, emphasizing it over the importance of the soldier. These omissions, perceived by many as gross deficits, prompted a movement to revise the doctrine. Even Starry admitted that the doctrine was lacking in many areas and committed to revising the doctrine for its next incarnation in 1982. The 1982 manual gave the forward motion back to the field commander who at all times worked in concert with other branches to exact the most favorable outcome in battle.

With a transfer of military and international focus to the European theater and toward the Soviet threat at large, the Army wanted to create a force that would be more precise in maneuverability and technology superior to counter a potentially much larger force. While the United States Army fought in Vietnam, the Soviet Army rapidly surpassed the U.S. in numbers and weapons, developing a much larger and menacing force. The fighting and equipping of the Vietnam War sapped resources and left the Army crippled in the aftermath. The United States Army needed to be faster, leaner and more cunning to win over a force that had a decisive advantage in numbers.

The United States Army's development of conventional doctrine should have come as no surprise therefore in response to the potential Soviet military prowess. There are lingering questions, however, over why the Army was so eager to shift focus to a conventional battlefield. Several historians have raised arguments about how the Army, in an attempt to revive its past glory, desired a return to the kind of operations it was comfortable training for and fighting in, therefore the Army quickly shifted focus to the Soviet Union after years fighting an elusive enemy in the jungles of Vietnam preferring instead the open land armored warfare against Soviet heavy, conventional forces.[22] Some scholars alleged that the U.S. doctrinal shift toward conventional scenarios was a way of "erecting barriers to avoid fighting another Vietnam War."[23] Soviet forces, most importantly, represented worthy adversaries—easier to find, fix, and at the very least, attack in the open. The return to a conventional focus provided a respite from the struggles of the Vietnam War and its aftermath. The return to "the cradle of orthodoxy" provided an opportunity to escape the nightmares of Vietnam.[24]

Career officers who stayed in the Army after combat tours in Vietnam acknowledged the challenges that faced them in the years ahead. Scholars of the period believed that rebuilding the Army would require "candid self-appraisal."[25] The rebuilding of the Army had to come from within its own ranks. Colin Powell

said of the Army in the year 1973 during the transition to the all-volunteer force, "As we dragged ourselves home from Vietnam, the nation turned its back on the military."[26] He recalls his time from 1973-1974 as a battalion commander in the 2nd Infantry Division in Korea, "we were moving from the old Army to the new, from draftees and enlistees to an all-volunteer force…It was the end of the hard-drinking, hell-raising, all-male culture in which I had grown up."[27] Change in the Army did not just begin with doctrine, but left impressions upon the Army culture itself. There were doubts within the profession itself about how the Army conducted the war. General Bruce Palmer conceded that the United States wrongly believed that "Yankee ingenuity, industrial military might, modern military organization, tactics and techniques, and a tradition of crisis solving in war would surely bring success in Vietnam," and furthermore within the Army that leaders suffered from the "can-do syndrome" when rationalizing how to overcome handicaps imposed on them by having to fight within territorial boundaries of South Vietnam.[28] More tellingly, Palmer refers to the way in which the Army in Vietnam was forced to fight a "passive strategic defense."[29] The new 1976 doctrine heralded the return of the offensive. The debate over doctrine furthermore was a way that the officers within the Army closed ranks to fight for the survival of culture and professionalism in the years after the devastating effects of Vietnam.

An event that further encouraged the return to conventional doctrine resulted from the Arab–Israeli conflict in 1973. The United States Army learned from the war, as did the Israelis, that military might and perceived superiority alone never guaranteed victory.[30] Superior numbers and better weapons bought from the Soviets instead gave the advantage to the Arabs, who possessed less well-trained forces.[31] The war exposed the flaws in the Israeli military approach and served as a wake up call for the United States Army, which relied heavily upon doctrine emphasizing light infantry and airmobile operations.

The doctrine born in the aftermath of the Arab–Israeli War "Active Defense" was the brainchild of William DePuy. Field Manual (FM) 100-5 was the capstone manual of the Army, from which all other manuals would follow.[32] The last revision of the document had occurred during the Vietnam conflict in 1968. To many in the Army, the doctrine in the early to mid 1970s was highly outmoded. The doctrine conceived in 1976 and 1982 emphasized a combined arms effort with use of mechanized infantry, armor, electronic warfare and air support in cooperation to pursue a coordinated plan of attack. By the 1980s, this doctrine became obsolete yet again because the Army militarily caught up with the rest of the world, even overcompensating for technological inferiorities that existed in the post-Vietnam years.[33] The years required to build the kind of lethal Army that emerged in the 1980s proved a time of blossoming confidence and burgeoning talent in the form of young and old officers alike poised to create and debate the doctrine of the future.

Low Intensity Conflict (LIC) has been the most prevalent form of warfare since 1945, despite the perception in the late 1970s and early 1980s that the international climate leaned toward a conventional battle in Eastern Europe.[34] Recent scholars have criticized the US Army's inability to adapt to the growing threat of unconventional threats and view it as a military culture that has frozen in an antiquated cultural mindset. Indictments of the modern US Army have come from active duty personnel, retired officers and civilian military scholars in the years after Vietnam. In opposition to the lessons of a long protracted war, some Army officers still believed in the years following the Vietnam War that superior firepower and numbers gave a decisive edge despite setbacks in Vietnam.[35] American military culture in the post-Vietnam era continued to center on the use of quick and decisive force.

It is helpful to examine some trends in British military culture around the same time because of their open discussions of lessons learned from low intensity conflicts. British military officer Frank Kitson wrote *Low Intensity Operations: Subversion, Insurgency, Peacekeeping* in 1971, while the American Army fought in Southeast Asia. The American Army did not take to heart the wisdom British advisors offered to them in the early advisory stages of the Vietnam War that they had gained during operations in Malaya and Kenya. Kitson discusses the British approach to insurgency "the best weapon is a keen, sharp mind…requiring quick responses, not overwhelming firepower" that at all times to be "ahead of the game or at the very least thinking of the next step."[36] The British Army placed heavy emphasis on the political aspects of an insurgency, to exhaust all of the possibilities before having to apply the use of decisive military force. Kitson's work is visionary in the field of LIC. One of the greatest errors Kitson sees in the American conduct of LIC is making the mistake of preparing for the "next or last war" because in order to do so, it requires that the military erase "centuries of conditioning."[37] If in fact the American Army was culturally predisposed to the conventional war paradigm did they have the ability to change in the face of "centuries of conditioning?"

A new debate has emerged within the American Army in recent years. The United States government in the years after Vietnam viewed the Soviet Union as the greatest threat, and the Army took its cue from this and built a force that could defeat a massive Soviet Army on the plains of Western Europe. American society and the United States government were eager to forget or bury the Vietnam experience in the years following the conflict. The US government tacitly supported the Army's move away from counterinsurgency operations, or any conflict resembling Vietnam both through inaction and through looking the other way while providing the funds for a new force structured to fight conventional forces. While the military looked like it was gearing up for the next big conventional invasion, it also looked as though the American Army was eager to

get back to the kind of wars it was comfortable winning in it's past, and culturally what they were most comfortable with. The conventional mindset emphasizes what the American Army believes about itself as an organization with desire for direct and decisive action strategically and tactically, also highlighting the importance that decisiveness plays in the cultivation of the warrior ethos.

Two recent works by active duty American Army personnel provide possible answers to the question of how an army might overcome a rigid institutional memory and culture. An examination of the military culture is the first step taken in both John Nagl and Robert Cassidy's works on doctrine in the US Army concerning low intensity conflicts. Borrowing a phrase from Thomas Edward Lawrence, Nagl describes the difficult process of adapting to insurgency tactics as "learning to eat soup with a knife."[38] Nagl asserts that the American Army's rigidity to adapt their strategic mindset led to tactical losses in Vietnam and the inability to incorporate new lessons after the conflict. Describing the American Army, Nagl examines the American way of war with four significant components: the perception by the United States of being either at war or at peace or an inability to understand limited war, the reliance on technology, faith in the United States as being morally right, and an aversion to unconventional war.[39] Suggestions offered by Nagl to change the mindset in the American Army include education and encouraging young officers to think innovatively. The "can do" attitude of American commanders in Vietnam exposed the lack of "healthy skepticism" needed to make positive changes.[40]

Cultural resistance has been a topic in other recent significant works on American military culture. Cassidy's *Peacekeeping in the Abyss: British and American Peacekeeping Doctrine and Practice after the Cold War*, is a superb analysis of the divergence (and recent convergence) in doctrine between the British and American armies in the post Cold War era. The biggest concern referenced when discussing the similarities between the two cultures is the dilemma of how to maintain an army for imperial policing while also having one for conventional war.[41] The British military emerges from the comparison as more capable of maintaining this strategic balance. The American Army at the end of the Cold War era created an army that was not agile in the conduct of wars other than the conventional type.[42] The United States Army clung to a conventional war paradigm.

To explore the reasoning behind the emphasis on conventional war, Cassidy defined doctrine as a military's *institutional memory*. Doctrine as institutional memory opens an area for debate over whether the Army has any real control over how it presents its desires or if it is merely reflecting what it *believes* to be the best of its abilities. Military doctrine is an institution's memory and reflects the triumphs of its history. This is at all turns infused with the warrior ethos.[43]

Doctrine's function is to take the best of what an Army already possesses and incorporate those strengths into a vision of the future. Doctrine's function and utility in the United States Army is not always clear to those who fight and soldier in the Army. The "muddy boots" soldier sees little need for doctrine while the thinking soldier craves to dissect and discuss it. Is it a functional manual adhered to rigidly, or is it theory that is to be widely interpreted in a flexible manner by the commander in the field? Much of the doctrine, specifically post-Vietnam era doctrine, is a relic of memory—of what the Army remembers itself to have been in the past, and furthermore much less as a vision of what the future might hold. What is the significance when discussing the post-Vietnam era? Doctrine written in the post-Vietnam Army era excluded the Vietnam experience of fighting an unconventional war and revived a vision of an army prepared to fight a conventional army.

Locating the significance of the doctrinal shift in the post-Vietnam era requires a look at studies of history and memory. The doctrine represented a consensus among those within the Army about how the Army was to take shape, also how it wanted to view itself in the years to come. The past glory of an Army that fought valiantly in the conventional was being channeled to revitalize flagging confidence within the Army because "there is a magic about memory that is appealing because it conveys a sense of the past coming alive once more."[44]

For an Army that had suffered a loss of a cultural identity over the years during the Vietnam conflict, the desire to resurrect the past was understandable. Using the work of French sociologist Maurice Halbwachs and examining collective memory, there is "considerable resistance on the part of those immersed within a tradition to accepting the reality of…transformation…the defenders of a tradition, therefore, are likely to buttress its places of memory."[45] In other words, the doctrine revitalized past glory and provided the vehicle for the institutions own memory—what it believed to be the best of what it had before the Vietnam War ravaged it.[46]

Once again, the paradigm has shifted to the unconventional battlefield and old wounds are re-opened. The American soldier has traditionally been viewed as apolitical, therefore it is easy to imagine why the American soldier and furthermore the Army proper is uncomfortable fighting in Low Intensity Conflict (LIC). The soldier in LIC is concerned with the changing political face of the environment he is in on a *daily* basis. The insurgent is fought against in the abstract, the main target is an ideology, not necessarily the insurgent himself, but the population. American civil-military relations dictate that in order to gain objective civilian control over the military, the military must be politically sterile and neutral.[47] With LIC, the reality is that the solider is required to possess a higher degree of military and political savvy.

Additionally, the diversity of conditions with LIC makes it difficult to discuss theory or doctrine that is static and recyclable. The conditions under which LIC take place differ each time they occur. Clausewitz discussed theory and its military application

> Theory exists so that one need not start afresh each time sorting out the material and plowing through it, but will find it ready to hand and in good order. It is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education, not to accompany him to the battlefield[48]

This highlights important issues in the application of theory in low intensity conflict. Because the reasons and conditions for a conflict are fluid, the frustration of studying the war means that one must start over each time a conflict comes along. It is of supreme importance for officers and advisors to be familiar with writings by other authors on the subject of LIC. Curriculum at officer staff colleges must train in classic military thought, but also in works that are relevant to current threats.

A recent story in the American press highlighted the absence of working doctrine for the war in Iraq and the reaction of the American military. While Clausewitz states that wisdom and self-education are only to accompany the soldier on the battlefield, the common soldier is desperate for doctrine, not necessarily theory. Soldiers bound for Iraq and Afghanistan stuffed dog-eared copies of the 1940s Marine Corps *Small Wars Manual* into their packs, evidencing a thirst for doctrine and guidance. The manual discusses how to conduct a cordon and search, the social and psychological aspects of small wars, and the not as helpful sections on the care and feeding of pack mules.[49] Doctrine is not a crutch in the modern American military but represents institutional memory.[50] It is one of few options available to the American soldier on how to fight LIC.

The Marine Corps *Small Wars Manual* acknowledges the diversity of conditions that comprise LIC, and the ability to adapt to situations—to be flexible while maintaining the internal structure of military units is paramount to operations.[51] Even more complex in modern conflicts is the enemy's ability to intimately know and exploit an army's weakness. An Indonesian commander who experienced guerrilla war as both as an insurgent commander and later as a counterinsurgent commander offers advice in fighting small wars. Abdul Harris Nasution states that using guerrilla tactics against a larger, well-equipped army is the only defense of a small nation not as well equipped, to counter a large, modern force. Nasution implies that guerrilla war itself does not bring victory, but the guerrilla drains enemy resources and emotional resolve. Furthermore, necessary for *total* victory is an equally formidable conventional force.[52] Nasution believes

that guerrillas should be fought with the same ferocity with which they fight. This raises contemporary questions about operations in both Vietnam and Iraq. There may be strong local insurgent leaders, but not a strong national sense. Not all of the people fighting are supportive of the insurgents' perspective. This makes the soldier's job much more difficult as he must learn to differentiate between who is an enemy and who is not.

A soldier's business is not simply the application of violence, but being able to mold to fit the conflict. A military must be prepared to handle conflicts large and small. The term "thinking outside the box" with respect to the operations in Iraq has inspired a legion of American military officers to write about and urge other military personnel to embrace change in the years ahead. According to a recent RAND study, two camps have emerged in the American civil-military structure. The question over the future direction of the US military created a traditionalist and reformer group.[53] The traditionalists, as might be guessed, want the status quo to remain, albeit with evolutionary change, slowly incorporating technological and tactical lessons. The reformer group wants drastic and immediate change in military structure and strategy.[54]

Those directly involved with the military have not met the idea of change in the American military with open arms. A recent study found that American military personnel at the higher levels were more enthusiastic than were junior officers.[55] Military officers are the acknowledged experts in their field and are expected to take the lead in any innovation in military affairs. Difficulties with getting officers to think innovatively are due largely to the trouble of removing themselves from, or thinking objectively about, the culture in which they exist. A retired US Army officer recently commented on the nature of military reform implying that consensus when leaders share a "common cultural bias" helps to generate more fruitful debate to decide which options are more viable than others are.[56] On the other hand, however, a cultural bias also means that there will be less openness to ideas that are too far outside the parameters of what the group is comfortable with.

Many different factors shape whether or not a military officer is open to innovation as there are different cultures within each branch of the American military. The Air Force stresses the importance of technology and the Army and Marines stress the human element of combat.[57] When considering career experience, such as combat, time in service, rank, it is understandable why it is difficult to expect an officer corps to come to a consensus on the best approach to transformation and innovation of a particular branch of the military. Further complicating matters is that to acknowledge a need to shift to the unconventional mindset would render most armor and heavy artillery obsolete. There is a crisis looming in these respective branches if faced with the dramatic changes that are necessary. Both

the armor and artillery branches will face challenges to their self-identity and internal resistance if their way of life is threatened. One observer insists that the loss of a self-image occurs in these branches if it comes from the outside, from fighting a conflict, and will be more traumatic than if the change were to be generated from within the branches themselves.[58]

A significant aspect of this dilemma is that the Army is so completely subservient to the civilian government that it takes the lead from them. Leadership is lacking yet boldness and aggressiveness are discouraged in today's Army. When writing doctrine, operations are shaped upon how the Army views the enemy's fighting capabilities. This causes a dilemma on a large scale when the Army has an inadequate picture of how and where the next conflict will be fought, and can only look at worldwide trends. It is impossible to foresee what size force might the American Army face in the next twenty or thirty years—it is an abstraction. The conventional force built in the 1980s and 90s allowed the Army to rapidly achieve initial successes in Afghanistan and Iraq. It was the fault of the government and planners at the highest level who failed to anticipate and resource the next phase of those conflicts—counterinsurgency operations.

Scholarship in the area of the new and challenging mission for the military confounds those who write about it because it is too soon to know how new doctrine and tactics in LIC will play out in the larger strategic environment with regard to operations in Iraq. The current international environment and the war in Iraq will add volumes to the already growing literature on Western approaches to LIC.

The constantly changing mission of the soldier reflects the shifting threats of national and international security. The frenetic rate of acceleration in military operations in the last few years appeared to knock one of the world's strongest military off its feet. The "revolution" in military affairs has been occurring for years, but being a world at war demands that it pick up the pace. With regard to current trends in transformation, before the most recent counterinsurgency manual was written in October 2004, US Army Chief of Staff General Peter J. Schoomaker introduced the Army's new mission statement, describing the Army at war, entitled "The Way Ahead." The pamphlet recognizes the need to change and adapt, the words "adapt" "balance" "flexible" appear, yet the words "decisive" do also and part of the mission includes to "decisively end conflicts."[59] The mission statement itself is conflicting. Many Army leaders know that modern conflict will be long and arduous. Yet it appears that the strategic military culture in the US Army clings to the decisive battle and decisive defeat even if it is not attainable in the near future. The answer in "The Way Ahead" is the elusive balance of an ever-ready conventional force as well as a versatile unconventional force. "Our Army will retain the best of its current capabilities and attributes while develop-

ing others that increase relevance and readiness to respond in the current and projected strategic and operational environments."[60]

The lessons of the post-Vietnam era and the use of doctrine shed light on the importance of leadership in a time of uncertainty in the Army. Even if the 1976 doctrine hit the desks of officers of the time with a resounding clunk, it began a firestorm of intellectual activity and one of the most significant periods in the 20th Century Army. It remains to be seen what the aftermath of the Iraq War will bring for the Army as a culture. It is hoped that the leadership that emerges from the conflict has the will to stand up to the challenge of rebuilding an Army that has suffered through an unpopular war. At the heart of the Army's cultural identity is leadership and commitment to the profession and the Army rarely suffers a shortage in either. Going back to DePuy's comments on June 7, 1973 at Fort Polk, for all of the criticisms leveled at him for his rigidity, he says something remarkable to the troops, "believe what you are doing, don't believe what I say." This was a rather prophetic statement, as many at this time were listening to their inner voices, of what they believed the future of their own Army to look like. In order for the Army to move forward, to the next conflict, it was necessary for a deeper appreciation of its own voice, its collective voices, and the mistake might have been not to heed the voices of the past. Standing at the gates of a new revolution and paradigm shift in military affairs, will the Army cling to the past or will it speed ahead with the best of what it possesses, and furthermore, be prepared for the difficult task to adapt once more long held beliefs about its own culture?

Notes

1 Briefing by LTG DePuy, 7 June 1973 [at Fort Polk, Louisiana]; *Selected Papers of General William E. DePuy*. Compiled by Colonel Richard M. Swain. (Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1994) 66.

2 William DePuy. "Unification: How Much More?" *Army* 11, no. 9 (April 1961) 30-38. *Selected Papers of General William E. DePuy*, 37.

3 as quoted in Paul Herbert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations* (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1988) p. 3.

4 DePuy. "Unification: How Much More?", 37.

5 Anne Chapman, Carol Lilly, John L. Romjue and Susan Canedy. *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973-1998*. (Fort Monroe, VA: Military History Office, United States Training and Doctrine Command, 1998) 1.

6 Ibid., 8.

7 Ibid., 8.

8 Chapman, 38-40.

9 Romie L. Brownlee and William J. Mullen, *Changing an Army: an Oral History of General William E. DePuy, USA Retired* (carlisle, PA: US Army Military History Institute, 1986), 183.

10 Ibid., 186.

11 Ibid.

12 Ibid., 54.

13 Ibid.

14 Ibid., 55.

15 Ibid., 59.

16 Chapman, 57.

17 Ibid.

18 Ibid.

19 FM 100-5, *Operations*, 1 July 1976, p. I and 1-1.

20 Huba Wass de Czege, and L.D. Holder. "The New FM 100-5." *Military Review* 62 (July 1982): 54.

21 Ibid., 55.

22 There is quite a bit of scholarship in this area, to name some of the most germane to this topic, see the following works: Roger Spiller, "In the Shadow of the Dragon: Doctrine and the US Army After Vietnam." *RUSI Journal*. 142, no. 6 (1997), Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore and London: The Johns Hopkins University Press, 1986), Stephen J. Mariano, *Peacekeepers Attend the Never Again School* (Monterey, Ca.: Naval Post-Graduate School, 1995), Deborah D. Avant, *Political Institutions and Military Change: Lessons from Peripheral Wars* (Ithaca and London: Cornell University Press, 1994).

23 Andrew J. Krepinevich, *The Army and Vietnam* (Baltimore and London: The Johns Hopkins University Press, 1986) 274-275.

24 Roger Spiller, "In the Shadow of the Dragon: Doctrine and the US Army After Vietnam." *RUSI Journal*. 142, no. 6 (1997): 43.

25 Sam C. Sarkesian, *The Professional Army Officer in a Changing Society* (Chicago, Ill.: Nelson-Hall, 1975) 4.

26 Colin Powell with Joseph Perisco, *My American Journey* (NY: Random House, 1995), 175.

27 Powell, 197.

28 Bruce Palmer. *The 25-Year War: America's Military Role in Vietnam* (Lexington, KY: University Press of Kentucky, 1984) 176.

29 Ibid.

30 see Edgar O'Balance, *No Victor, No Vanquished: The Arab-Israeli War, 1973* (Novato, Ca.: Presidio Press, 1978)

31 George Gawrych, *The 1973 Arab-Israeli War: The Albatross of Decisive Victory*. (Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College,1996), 79.

32 Herbert.

33 Jonathan House, *Combined Arms Warfare in the Twentieth Century*. (Lawrence, KS: University Press of Kansas, 2001), 240.

34 Ian Beckett, *Modern Insurgencies and Counter-Insurgencies: Guerrillas and their Opponents since 1750*. (London: Routledge, 2001), vii.

35 Harry Summers specifically in his work *On Strategy: A Critical Analysis of the Vietnam War* (Navato, Ca.: Presidio Press, 1982), which after Vietnam became required reading at the U.S. Army War College and for a time Summers taught a capstone course at the War College. Much of Summers' criticism was leveled at the administration for

flawed strategy and the military was credited with attaining tactical successes but seen as having little control over the strategic aims which were dictated by the administration and Department of Defense.

36 Kitson, 131.

37 Ibid., 201.

38 John Nagl. *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife*. (Westport: Praeger, 2002)

39 Nagl, 43-44. See also Russell F. Weigley. *The American Way of War: A History of United States Military Strategy and Policy* (New York: MacMillan Publishing Co., 1973)

40 Ibid, 132, 202.

41 Cassidy, 45.

42 Ibid., 85.

43 Clifford Geertz defines a people's ethos as the "tone, quality, character of their life, its moral and aesthetic style and mood; it is the underlying attitude toward themselves and their world life reflects." from *The Interpretation of Cultures* (New York: Basic Books, 1973) 126.

44 Patrick Hutton, *History as an Art of Memory* (University Press of New England, 1993), 76.

45 As quoted in Patrick Hutton, *History as an Art of Memory* (University Press of New England, 1993), 79.

46 For a particularly insightful examination of a group of officers known as the "Never-Again School," see Stephen J. Mariano, *Peacekeepers Attend the Never Again School* (Monterey, Ca.: Naval Post-Graduate School, 1995) Thesis. Mariano argues that the Army's avoidance of the limited war paradigm continues to shape Army culture. (p. 7).

47 Samuel Huntington. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1957), 83-84.

48 Carl von Clausewitz. *On War* Edited and Translated by Michael Howard and Peter Paret. (Princeton, NJ: Princeton University Press, 1976), 141.

49 Greg Jaffe, *Wall Street Journal* "Marines Rediscover a 1940s Manual" http//www.globalpolicy.org/empire/intervention/2004/0408manual.htm. August 6, 2004.

50 Cassidy, 26.

51 *Small Wars Manual: United States Marine Corps* (Washington D.C.: G.P.O., 1940)

52 Abdul Harris Nasution. *Fundamentals of Guerrilla Warfare*. (New York, NY: Praeger, 1965), 9.

53 Glen C. Buchand, *Future Directions in Warfare: Good and Bad Analysis, Dubious Rhetoric, and the "Fog of Peace"* Prepared for: Conference on "Analyzing Conflict: Insights from the Natural and Social Sciences," (UCLA, April 24-26, 2003), 2.

54 Ibid.

55 Thomas G. Mahnken and James R. FitzSimonds. "Revolutionary Ambivalence: Understanding Officer Attitudes toward Transformation." *International Security* 28.2 (2003); 112-148.

56 Huba Wass de Czege. *Military Art and Transformation in the Age of Globalization*. (Draft, unpublished), 2004.

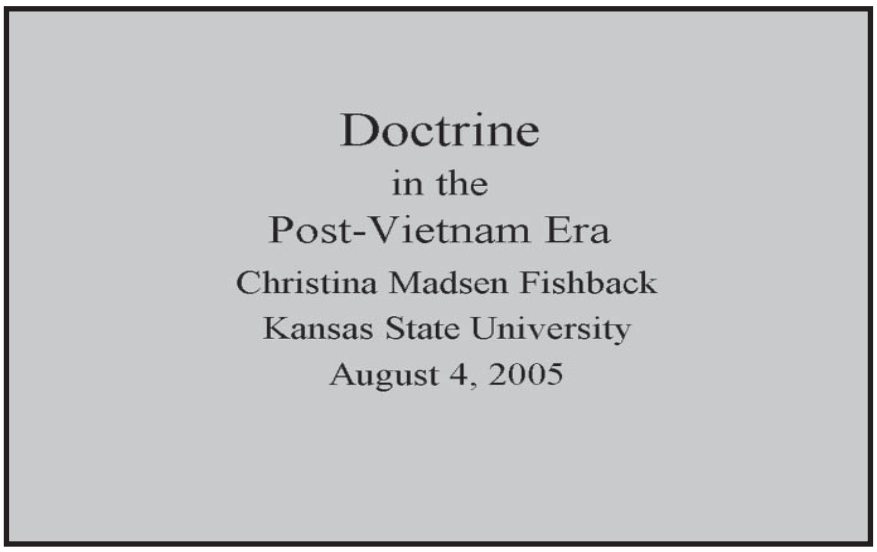
57 Ibid, 117.

58 Carl Builder *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore, Md.: The Johns Hopkins University Press, 1989) 189.

59 *United States Army: The Way Ahead*. http://www.army.mil/thewayahead/relevant.html.

60 Ibid.

Fishback Slide Addendum:
Doctrine in the Post-Vietnam Era



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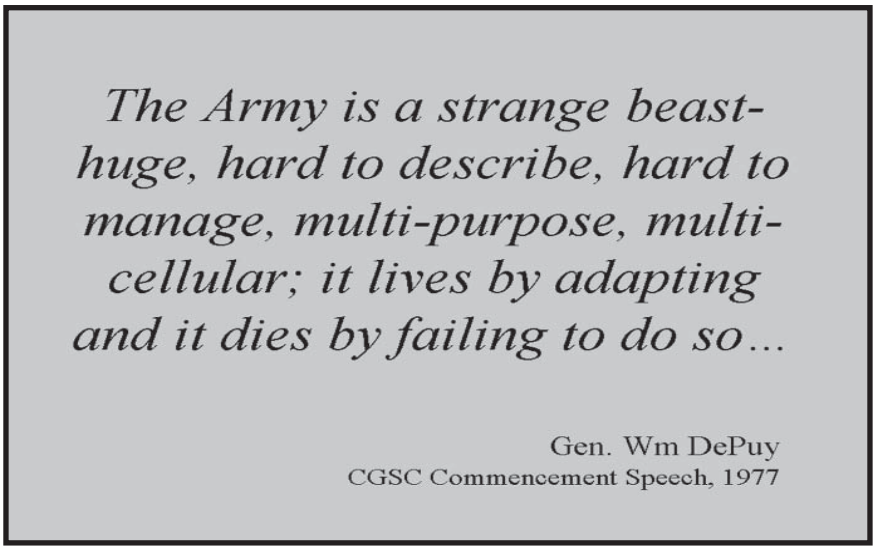

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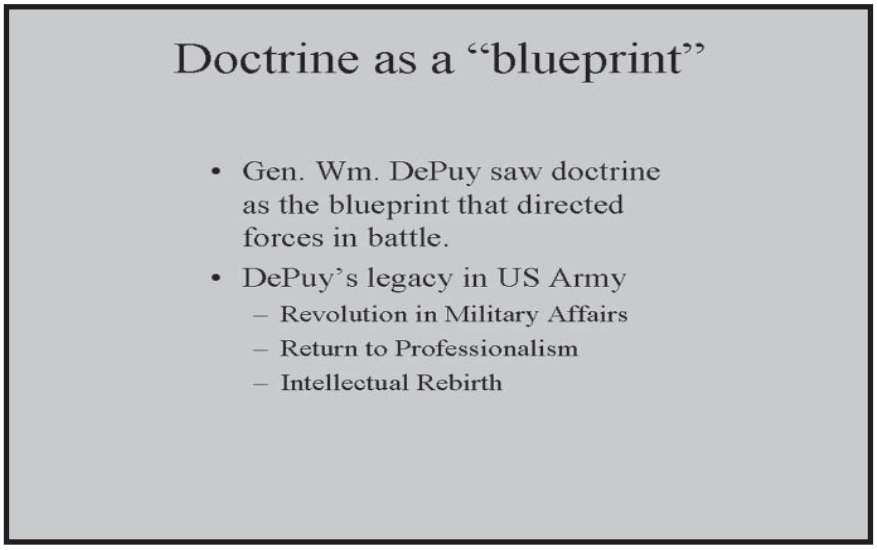

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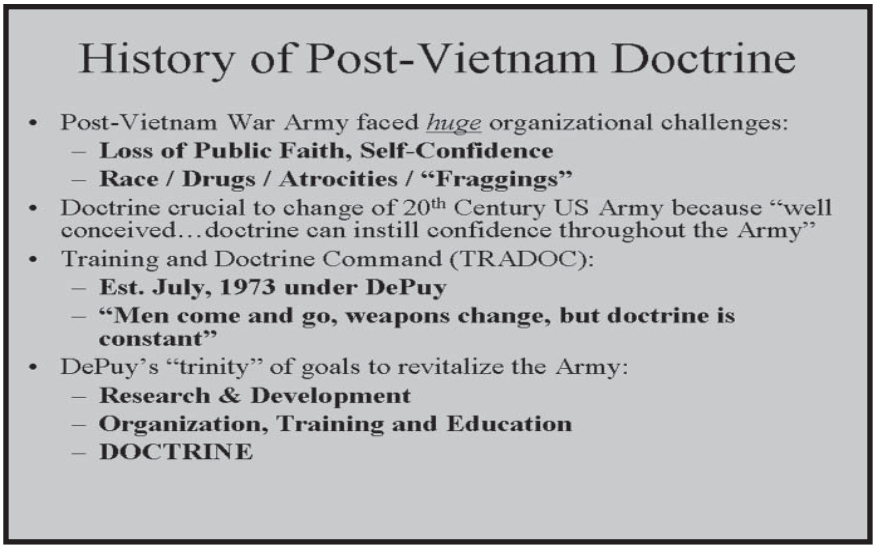

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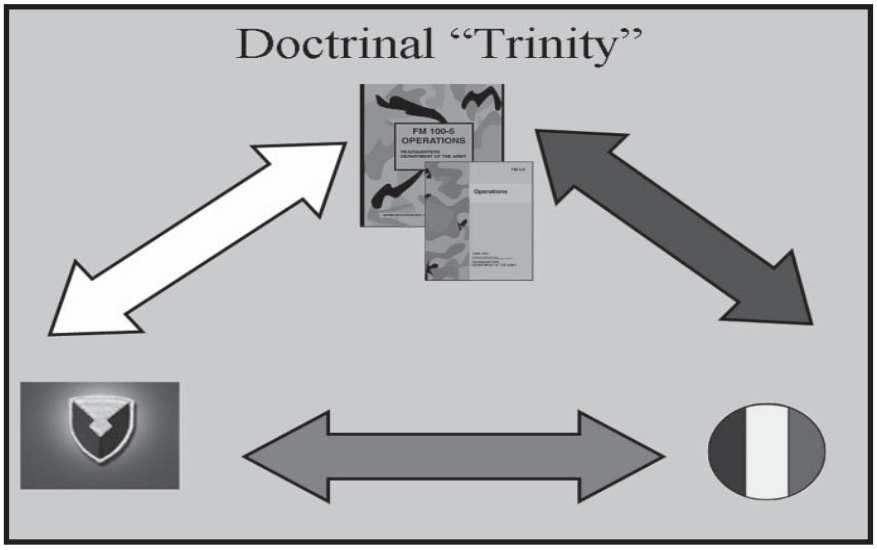

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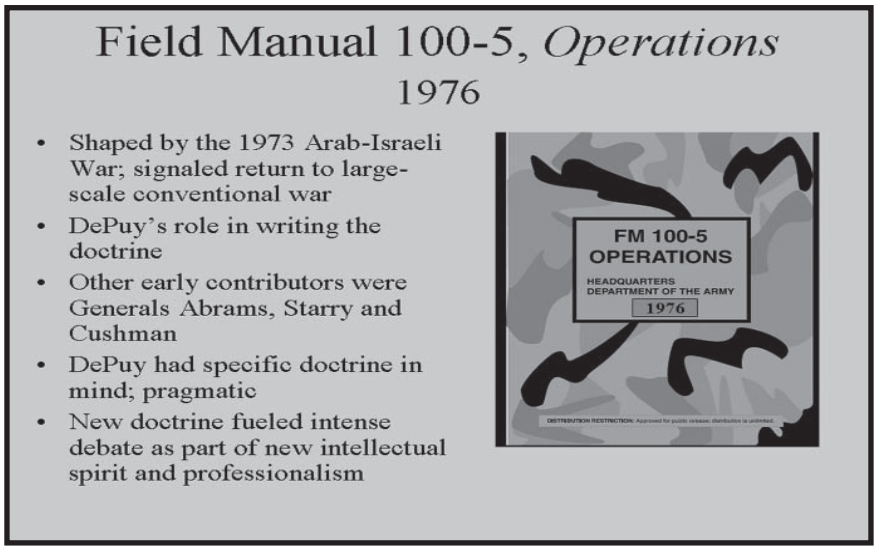

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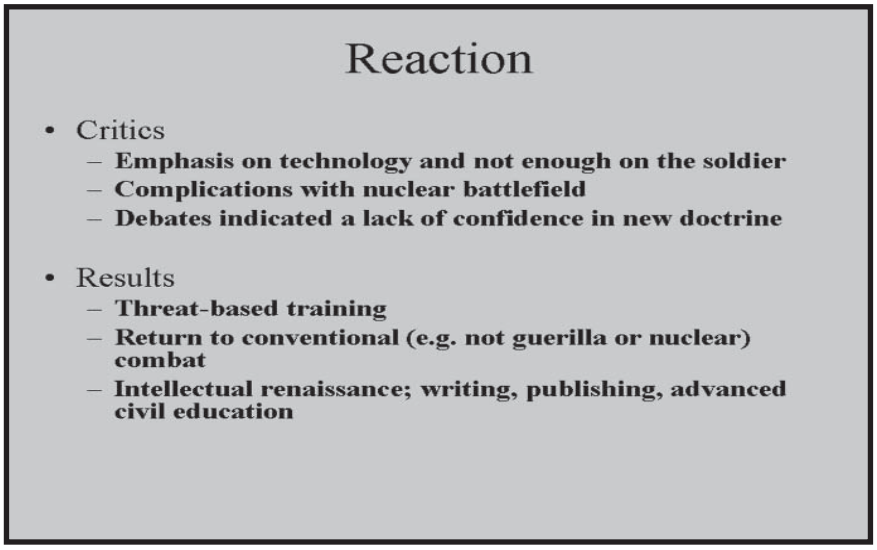

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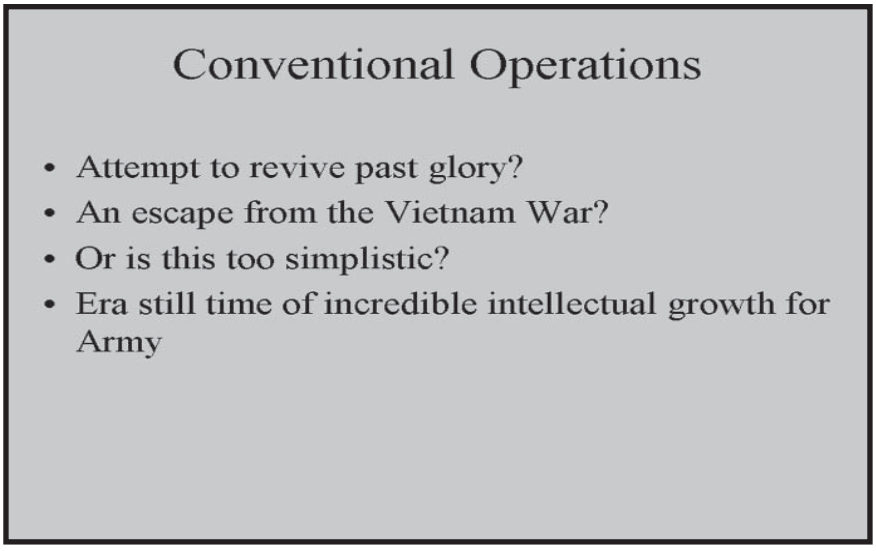

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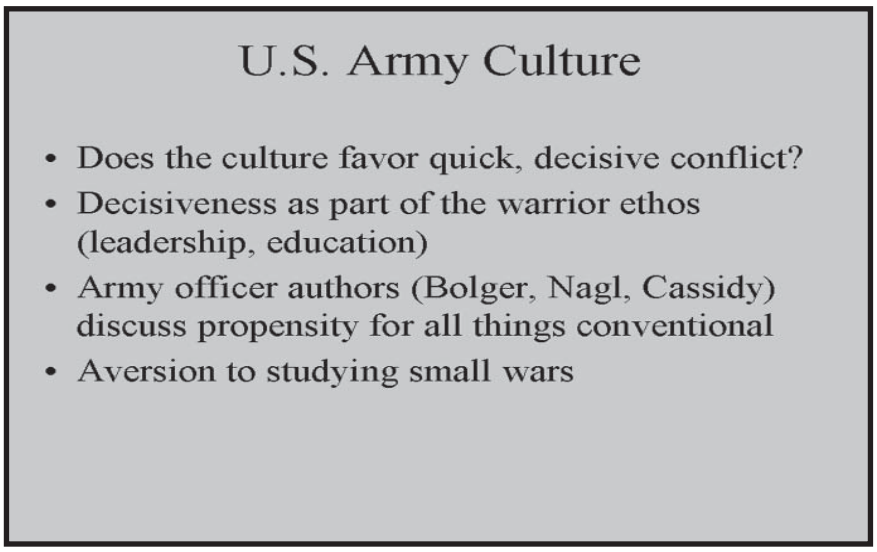

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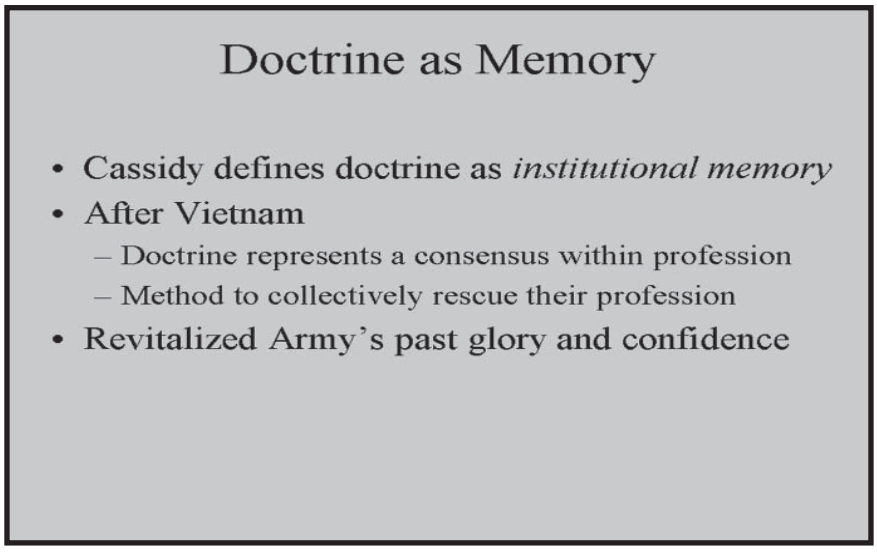

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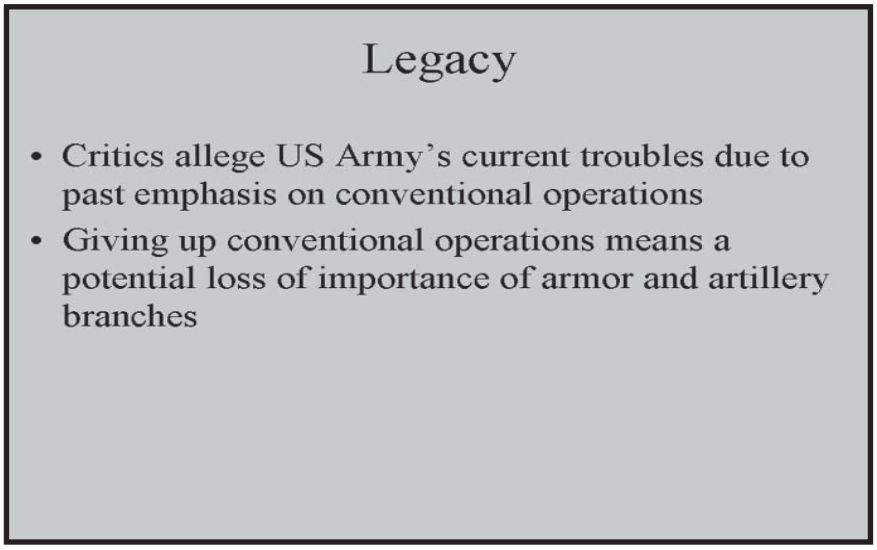

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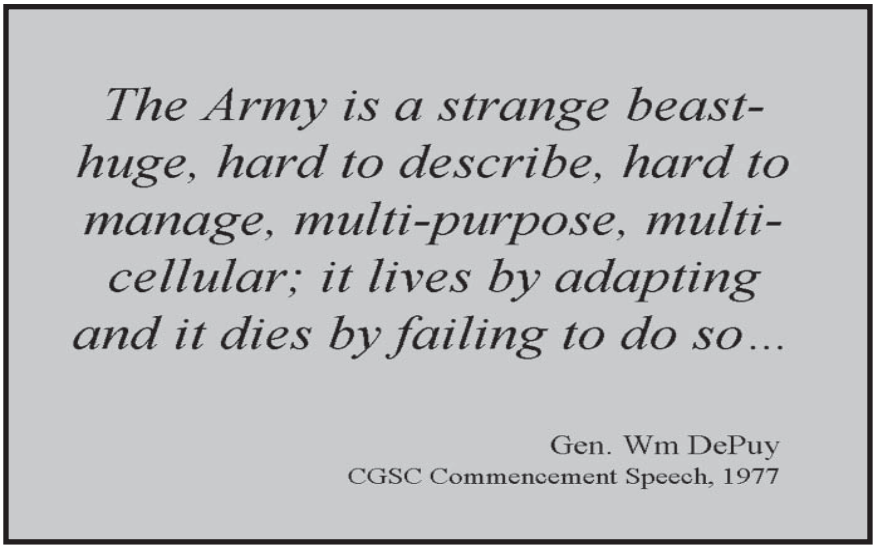

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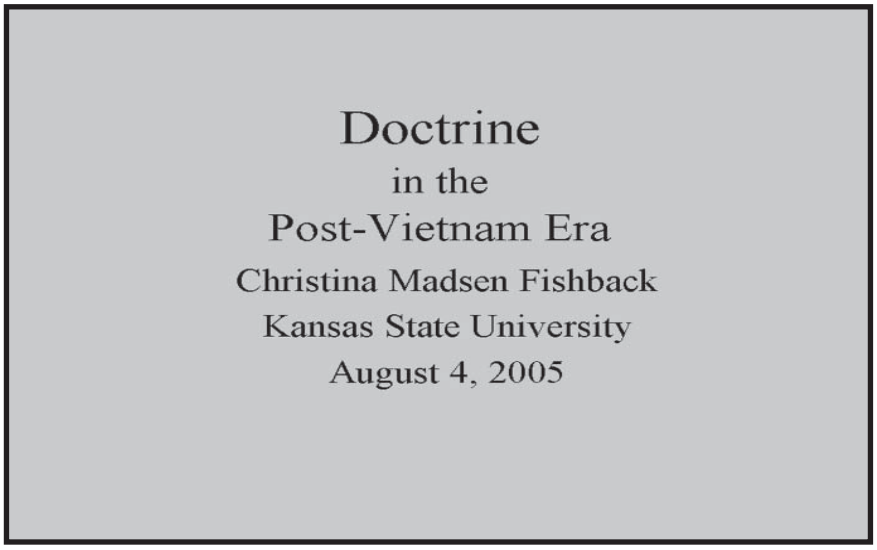

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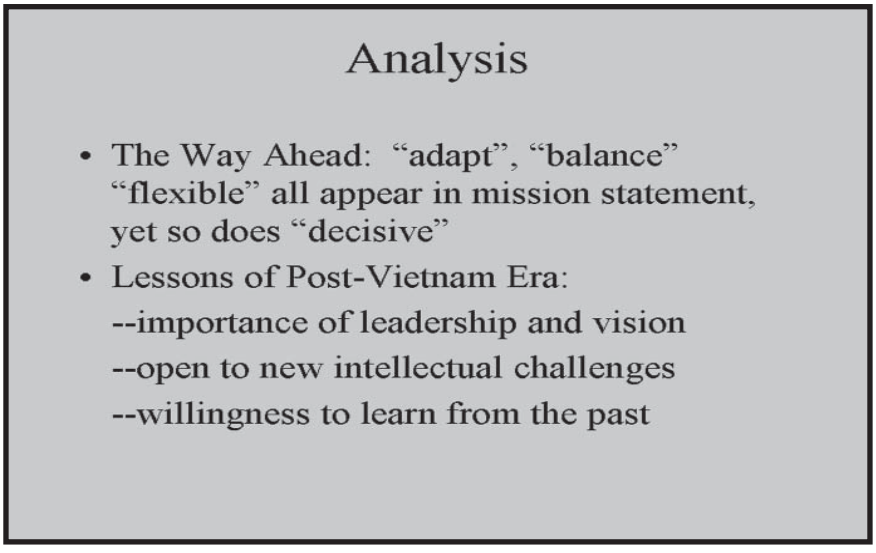

Figure 14

Day 3, Session 3 Question and Answers

Moderated by
John J. McGrath–Combat Studies Institute

Mr. McGrath
Just a few comments before we go to questions and answers, and ultimately, the end of the conference. First of all, Peter, in your list of first-wave books that came out on Iraq, you failed to mention the most important one, because it was done by CSI, and it's called, *On Point*. [Laughter] I think, in many ways, it's the best one talking about the tactical level. We're going to have an *On Point 2* coming out one of these days too.

In many ways, this last session kind of goes full circle back to some of the earlier first sessions we had, where we talked about the different eras of the Army changing in transformation, and all the stuff General Scales said. But in many ways, the debate on the contrast between the German Army in World War II and the US Army was kind of like debate between firepowers represented by the US Army, or maneuver, represented by the German Army.

With modularity and transformation and all of that stuff nowadays, that paradigm has kind of been transformed, with firepower being turned into technology—or hardware, as I call it—and the maneuver being turned into number of troops on the ground, or software. I mean, in 1991, we had two engorged corps, fighting a very large Iraqi Army, but in 2003, we basically had two divisions that were taking on the entire Iraqi Army, with a much larger geographical mission, and so we have this new paradigm of technology versus number of troops.

The debate about the World War II German Army, it's kind of like this is a modern-day extension of it. How many troops are necessary? Everybody knows about the great Shinseki debate, that—not enough troops, too many troops. They wear little things on their helmets now that can do the work of ten men or whatever. I think that's a good full circle for this.

On the doctrinal stuff, about the "how to fight" series, I think it is important also to—as historians, when we look at events like this—is to look at the complete historical context, too, because while the Army was fighting in Vietnam, in Europe, the Russians completely modernized their forces, and did a large buildup, and in 1968, along with the Warsaw Pact allies, they basically did a surprise invasion of Czechoslovakia, which totally stunned the NATO observers, because they didn't think the Russians could do that, and we didn't know they were going to do it until they did it.

Up to that time, the standard defense plan for Europe was basically a replay of World War II, that we'll know in plenty of time before the Soviets attack, so we'll be able to bring troops over; and worst case, we'll do a delaying action to the Rhine River, until they all get there, and then we'll counterattack, and win the day.

So by the time Vietnam ended, there were good, concrete reasons to be looking towards a big war. We look at it now and we say, "Oh, yeah, the Cold War, we won that and stuff." But back then, they didn't know we were going to win it, and they didn't know Reagan was going to become president and throw all this money the military's way or whatever, at the time.

I would look at even the aversion to small wars kind of needs to be put into a more general context. It may be an aversion to small wars, but it may also be a fear of losing a big war while paying attention to small wars.

I guess I really don't have that much else to say, but we can open it up to questions and answers. Yes?

Audience Member
Just a comment on doctrine. I've always defined doctrine as sort of [inaudible] in a toolbox, and in the [inaudible] 1976 doctrine, one of the things that interested me is that it really didn't place Army operations either in an overall context, or really have any kind of balance in terms of the kinds of operations that we would conduct.

Going back to the toolbox analogy, there really was only one tool in that toolbox—that being a hammer. [Laughter] We had two varieties of defensive operations, and it really lacked any kind of discussion in terms of offense, defense—the low-intensity stuff—or really anything else. I've always seen the value in the 1976 doctrine, and what Depuy did is not in that particular document, but in the overall debate and the entire process that we initiated literally over the 25 years following, because if you take the 1976 doctrine on operations, and then you compare it to each one of the succeeding volumes, each one is a successive improvement over the last. I think the next one in '82 starts, "Oh, yeah, we also do offensive operations." Then I think it was around '86 where we started talking about the operational level of war. So I mean, I really see a great revolution in the way the officer corps thought, and maybe this kind of goes back to something that was said the other day about the [inaudible] process and the boathouse gang. I really see it as more a spark than anything else.

Ms. Fishback
Yeah. I think that's kind of what a lot of my research has kind of pointed out to me, in that even with the development of the SAMS (School of Advanced Military Studies) course in 1983, I mean, if it wasn't for that '76 version, I don't think some of those guys would have been sitting there, listening—if it wasn't for Depuy, it wasn't for that group of officers after Vietnam, that really reclaimed that profession for themselves—I think that we probably wouldn't have those guys sitting back there, listening.

Audience Member
This one's for the master sergeant. First of all, I think it's interesting, having listened to our Canadian cousin talking about the professionalism of the Canadian Army, and here at the intellectual home of the Army, these officers and professors are addressed by a master sergeant. That says a lot about this Army; it says a lot about that sergeant. Sergeant, I was wondering, Miss Fishback talked about an intellectual renaissance of the Army, starting, say, in 1976. I notice in your third generation of histories, that you had there—one was by Sergeant Major Robert Rush; the rest were by Majors Pete Mansoor, Michael Dobler, John Brown—do you think there's a linkage there?

MSgt Clemens
Well, I think certainly you can make an argument that probably one of the great pillars, I think, of the Army is the fact that we do have intellectual soldiers. I mean, you look at that list you just mentioned. Everyone of those individuals, you have a sergeant major; I think Michael Dobler was a lieutenant colonel in the reserve; we all know Mansoor is a lieutenant—I think he's colonel now, if I recall. But the point is, you have an emphasis in our Army on the intellectual side of warfare, if you want to call it that. I think that's what's fascinating about the emergence of this whole body of literature. I know one of the things with my paper, you can make an argument that it was a little heavy on this debate between, at the time, Major Brown and Colonel Depuy. But I think that's reflective of like what Christina was saying about the fact that you do have this kind of renaissance, this explosion of the last 30 years, of publishing of—critically evaluating. I mean, in this morning's discussion, we talked—or the paper by the Center for Naval Analysis—talked about this kind of activist staff, I think is what was on the chart, and this notion that you are not just going to sit there and not say anything. I mean, you're being paid to think. That's one of the things on the NCO side of the house that you're starting to see that kind of intellectual thinking. And certainly, Sergeant Major Rush's book is an excellent, excellent book. So I would think yes—a renaissance of the last 30 years? Certainly. I would argue that.

Audience Member
Yeah, for Sergeant Clemens, I would suggest that the whole business about the World War II military history is a great example of history being written by the victors being a truism that is false. Military history, more often than not, is written by the losers, because they have a hell of a lot more to explain. [Laughter] Okay? World War II being one example, the Civil War being another, the Spanish Civil War being a third. Okay? The second thing is, I would suggest that you might want to extend your research into comparing the US Army's performance in the initial occupation of Germany, versus the initial—post-combat civilian operations in Iraq. I mean, I did a lecture on that for my own college when we did a package on that, and I subtitled the lecture, "Babes in Deutschland," which could be taken any number of ways, and some very interesting parallels are there, and I think you would do well to extend your research in that direction.

I would also comment, not only what you said about winners and losers, but the American Army fights extremely well [inaudible]. What we don't do well is we don't sustain [inaudible]. I think what we also [inaudible] study is to take a look at our CSS or our CS operations that we do and apply that to what's going on in—to Iraq. We need to know how to secure water, electricity, civil affairs—all those things that are not focused on. I mean, it seems like most of our academic is on tactics, and sustainability comes at the operational level, in which we support the infrastructure. How do you build up and support and take care of those basic needs, once you eliminate what's already been there? We created a huge vacuum, and we didn't have sufficient support force to fill that vacuum. That's what I see is the big problem. So I would like to see some of this. Of course, I had a preview of this, but I'd like to see a little bit more of a logistical background and how you sustain operations. I mean, that seems to be our problem.

MSgt Clemens
I think, in response to that, real quick, we all know the history of the individual replacement system, but I think, in a lot of ways, that debate itself is starting to come full circle. I mean, before, I think up to the '70s, '80s, it was damned, because this destroyed unit cohesion—that was kind of the essential argument against the individual replacement system. But when you look in the greater context of the limitations of the fact— We only fought in the West with a 45-division force, roughly, and we didn't have the luxury of taking whole divisions out of the line for a month or two months at a time, retrain them, reintegrate packets of replacements that weren't individuals, but came as battalions, let's say. Because a lot of people say, well, we should have followed the German model. The Germans pulled units out of the line, in order to refit—they would let their unit be destroyed; then they would pull it out, they would refit it, and reinsert it

back in the line in three months. We never had that sort of advantage. So I think when you talk about practices, that's one of the things that—like the individual replacement system—there is this debate going on. Maybe it wasn't such a bad system in World War II—we certainly could have improved it—but now you can apply those same lessons to today. You know, as we take casualties, should we do individual replacements? Should we come as a platoon? I mean, there's a lot of lessons we can learn from predecessors. I think one of the kind of motivations behind this paper real quick that I wanted to write on is the fact that, you know, it's interesting. Yesterday we had a major who was here from CGSC giving a logistics paper; you look in his bio: "Graduated from college 1994." So his frame of reference is basically Kosovo—I mean, Desert Shield/Desert Storm is history. I mean, and heaven help—he doesn't have any reference on the Cold War Army. So the point is, it's important that—especially the field grade officers who are going through Leavenworth now, that, hey, there were some good books written back before your time that might apply to current operations, and you really should go back and maybe take a look at them. And these aren't necessarily ancient history—they were written in the '80s. But that's just kind of the framework that—you know, time moves on, I guess.

Audience Member

My question and comment is directed at Ms. Fishback. A warning, a semantic warning: I think what happened in '74 and on, and the revival of the Army after Vietnam, had (a) very little to do with glory, in the mind of anyone in the Army, (b) you said "escape from Vietnam," or you know, recovery is probably a better word. But what I'm suggesting is, look at how you use those terms. General Depuy, I'm certain, the word glory never passed his `mind during those years—of any kind. He was concerned with effectiveness, efficiency, the recovery of the Army and the morale of the Army. My other comment, I think, is perhaps more pertinent, and that had to do with the thing about the small wars. In 1977 and '78, it's true that the curriculum of the General Staff College, with one exception—the material taught by the history squad—did not address small wars.

But the organization that's sponsoring this conference here was created as part of that renaissance, as part of that development, and if you look at the first couple of Leavenworth papers, look at the title of what they are. The first one was Bob Doughty's thing, which addresses the involvement of doctrine. That was tied directly—directly—to the development of 100-5; it was sort of a companion piece to help explain how doctrine changed, and so forth. And if my memory serves—it's a little fuzzy right now—but on the first three or four or five, one of them was Roger Spiller's paper on the intervention in 1958 in Lebanon. I think there was another one on finished operations. I just don't remember, but I do

remember that, for the most part, they dealt with small wars, and it was part of the getting from Vietnam, in a sense, but yet it wasn't the big battle in Central Europe—that's my point. So you might want to look and see what the first ten titles in the CSI Leavenworth paper series were, because they were indicative of where we wanted to shift the interest to.

Ms. Fishback
Okay. Well, to respond to using the words *glory* and *escape*, I think I was just pointing to some of the current literature and sort of what historians and critics have said, and describing some of what the argument is right now. As far as the literature that you were talking about, I'm familiar with that as well, but also, I was looking at a more broad scope, the MMAS, the things that were coming out at that time, and then also, all the service journals—*Military Review, Parameters*. There have been a couple of studies, one that was a naval post-grad masters degree by—it was called, "Peacekeepers Attend the Never Again School," by Stephen Mariano, I believe. So I mean, I've looked at sort of all of that, but I do appreciate your pointing that out to me. Thanks.

Audience Member
Somewhat of a follow-up to that, because I'm recalling, as we talk about what we went through between the withdrawal from Vietnam, through the '70s, and then beginning to rebuild the Army in the '80s, I left Vietnam in '75, with Vietnam collapsing, and to a degree, there were a number of us who thought that, "Okay, Korea's next." You had a situation in Portugal where we thought we were going to have the first NATO member declare a communist government. We had conflicts breaking out in Angola and Mozambique and Cuban Expeditionary Forces. I'd be interested to see you continue this examination of what was going on in the Army, and how these things that were happening around us impacted on their perception of what the next mission was likely to be. It's also sort of this period where you start leading to people arguing the Weinberg doctrine and the other conceptions of how we were going to use force and when and where we were going to use force. I guess I didn't hear much of that, but it comes a little bit later than some of the period you were talking about, and it's a little broader than some of the issues you were covering, and if anybody else has some comments on how those things played into what was going on.

Ms. Fishback
Yeah. I think because of the scope of the paper, and then also, I had to convince—my actual paper—but my masters thesis goes into that, and then even beyond my masters thesis, I have many more interests that could probably end up making the dissertation topics that—

Audience Member
The next paper. [Laughter]

Ms. Fishback
Yeah.

Audience Member
I think the active defense bothered General Depuy very much, I think he said it wasn't in the tradition of the United States Army to be on the defense, but always on the offense. So I think that's one of the reasons he placed a great deal of emphasis on military history. One thing you have to look at, or revisit, is the Green Book series of World War II. Now, they try not to give the opinions of the authors, but they're the best I've ever seen in terms of describing what actually happened—in all the areas, including logistics. I think we would be ill-served not to go back and look at them. There is volume of course on the occupation of Germany--which I find difficult to compare to the current occupation of Iraq because of the homogeneity of the population, and the total defeat, de-Nazification, and other things we had done. We had started planning that well in advance in 1943-44, according to this book, so we would be prepared. General Marshall directed that study to go forward as to what we would do in peacetime. So I just suggest that the Green Book be added to that collection.

Mr. McGrath
I would like to second that about the greatness of the Green Book series. Yes the person way in the back.

Audience Member
This question is for either of the two presenters. Earlier it was talked about the importance of Leavenworth in the intellectual scheme of the United States Army. Some of the names that came up in your two presentations struck me. Pete Mansoor, Mike Doubler, Dan Bolger, you didn't mention Doug MacGregor but he is certainly an intellectual player, L. Don Holder, I threw in H.R. McMasters—he is on the CSA reading list—and then Bob Doty. What all these guys have in common is they were all on the faculty at the Military Academy in various departments. I wonder if either of you have looked at if this is one of the main intellectual centers--is the faculty at the Military Academy an incubator for intellectual thought? Because we send young officers off to some of the best grad schools in the country to prepare to teach there, and the results are on your publications list.

Unknown Member
Rick Schrader can answer that question.

Dr. Schrader
I have been at both ends of that particular thing, and I think there is nothing unique about West Point that makes them good. What happens is the selection process for the people that go to teach at West Point preselects those people that are predisposed to be able to do just what you're saying.

Audience Member
It provides them the opportunity.

Dr. Schrader
Yeah. It gives them a chance to think. But what I'm saying is there's nothing particular that happens there that changes things. They're good before they get there, and they're better when they leave, because they've had an opportunity to think through things.

Audience MemberUnknown
Right. They've had the advance sort of screening that Ms. Fishback talked about.

Dr. Schrader
Yeah. Sure. But it doesn't have anything in particular to do with West Point.

Audience Member
This is for Sergeant Clemens. A hundred years ago, the measure of a professional military was the education and training of its officers, where I would submit today, the measure of a modern military is the education and training of its NCO corps. In comparing the German and American corps of World War II, what insights does that comparison offer for us today?

MSgt Clemens
Well, I think we certainly would—obviously, you want to be a "muddy boot" soldier when you need to be, but there's an intellectual component. I think in our earlier presentation on proficient military education, that's one of the things both on the officer and the NCO side of the house that there's a lot of emphasis put upon that developing the intellectual part of it. That certainly won't hurt, because the important thing is, you obviously want to have a vision beyond just a tactical level of pushing the platoon, and I think that's one of the motivations I had to preparing this paper was the fact that I've been getting a series of questions from people say, "Hey, you know, I'm trying to figure out—how do we figure out how we're doing—effectivenesswise?" I'm getting this from NCOs. So I'll say, "Well, maybe you should read a couple books." That's one reason I didn't put the Green Books on there, because if you hand them a tone like that, they tend to kind of—

the eyes roll back in their head, and that's the end of the discussion. But if you work through a couple of these books, and—as we've been hitting on here—you know, written by a lot of military intellectuals, who've come right through here, and we know the titles now—and if you take those books and say, "Here, read the *G.I. Offensive in Europe*, and read Michael Dobler's book, *Closing with the Enemy*." If you read those two books, and then as you start getting all these analytical studies from whoever on what we're doing in Iraq, I mean, at least you have kind of a frame of reference. I think the thing that's appealing—just as Christina was saying—there has been this. I would really say a great dissertation out there is, "The Intellectual Rebirth of the US Army, Post-1973," and you know, you've got a bibliography already started. You're seeing that, and I think you're seeing that on the NCO side now. We had talked about it earlier, the fact that now, you're going to Sergeant Majors Academy. You know, you're not going to show up at Sergeant Majors Academy with three credit hours of college—you'd better show up with something more, or you're never going to get there. You better know how to write a coherent one or two pages—not just an operations order, but something coherent—because it's shocking out—I mean, I'm an intel analyst, and trust me, it's shocking how many people cannot write a coherent one page on something; it's just the way it is. But we're putting emphasis on that now. There's this whole idea of—like we mentioned—the activist staffs, and part of those staffs are NCOs; they have to be educated. I'm not sure if I really answered your question—I kind of talked around it.

Audience Member
Part.

MSgt Clemens
That's part of it.

Mr. McGrath
Any more questions?

Audience Member
I'm glad to see my question from this morning is being answered this afternoon. But I guess two questions. One for you Peter: If you could gaze into your crystal ball, and kind of predict how the historiography of the Iraq war is going to look in five, ten years, how would it be written? Then the second question would be for you Christina: Do you see any evidence to suggest that our democratic culture, in its demand for public support and decisive warfare, which quickly leads to victory, and of course the backlash from Vietnam, did that lead to this rebirth

of doctrine that was largely based on conventional conflict? And could you think outside the box and answer that with interpretive dance, please? [Laughter]

MSgt Clemens
That's an inside joke. How will Iraq be written? I think one of the biggest drivers is going to be embedded journalists. I think, in a way, embedded journalist was an absolutely brilliant idea, because you attempt to co-opt the media and get them on your side. One of the problems that we face, however, is the fact—we all know and we all rail about political correctness—a lot of these journalists, when they get back, and get back to their normal peer group, there's going to be a lot of pressures on them to write histories a certain way. They may feel deep down inside that, "When I was with the 101st, I felt this way," and they would write a very positive history. There's going to be a lot of pressures among their peer group, among publishers, to push certain viewpoints, to maybe emphasize failures over successes. So, how will the historiography of Iraq be written? I think right now, the field, at least in the first five years, will be written heavily by embedded journalists.

However, I see them fading away fairly quickly, because it's not the flavor of the week, so they're going to move on to the next story. But I would say that Iraq, unfortunately, is somewhat like Vietnam—there's going to be a lot of emotion with it. That's part of the problem right now, why they're not having some really good books on Iraq written, because there's a lot of emotion, and we all know—unfortunately, I think, the population is disconnecting from the war. "Yes, we support the troops, but I don't support the conflict." I'm not sure how you really resolve that in your mind, but people are—they articulate that.

I think one of the big problems we face is people putting blinders on Iraq, as far as the American public, and they don't want to deal with it. I mean, this week, unfortunately, we've had another 24 casualties. A lot of people, it's not even on the radar net—that's something for the Army to deal with, the Marine Corps to deal with, and that's unfortunate. But I think this is a field that I would just say is a clarion call to—we've talked about military intellectuals—I think it's absolutely critical we don't cede the writing on the history of Iraq to a bunch of ill-qualified embedded journalists with a political axe to grind, because if we do that, the historiography is going to be butchered, unmercifully. So there's good motivation for us to get out there and write good history.

Ms. Fishback
Well, I think the media certainly complicates—I don't really remember exactly your question, but I know that the unpopularity of the war in Vietnam was due in large part to the media, and I had mentioned that it was the first living room war.

But after Vietnam, the Army was so unpopular that they were able to kind of retreat, and in isolation, sort of rebuild themselves. I don't know how the media—I know that now it plays a part in the Iraq war, but—

Audience Member
[Inaudible] the development of doctrine?

Ms. Fishback
I'm not really sure. Like I said, I don't think there's really that much interference outside of the Army. In that respect, no. I mean, I don't think it really interferes all that much.

MSgt Clemens
Can I take a stab at that?

Ms. Fishback
Sure.

Unknown
When we did *America's First Battles* at CSI, the last battle in the book is Ia Drang. What came out of that—and we talked about it—is the fact that good tactical doctrine reinforced bad strategy. In all these books, what we did, we're boots on the ground in Iraq—we're "book-perfect." But there are other influences on war in the 21st century, and that story can't be told yet. And that's what's going to happen. I don't think much of Tommy Franks' book, frankly, and I think that we need a little bit more intellectual honesty about what went on at that level, to get a full understanding of the picture of what went on, and what's going on now.

Unknown
I'd like to make one comment. Lieutenant General Mick Traynor has written a book about the Iraq war, which is now in the publication process, and it's going to be pretty blistering, not about the performance of the military so much as a "good men in a bad cause" kind of book. But I think it's going to be a critical book. It's not by a journalist—it's by a soldier, or in this case, a Marine.

Mr. McGrath
Okay. We're going to have some concluding comments from Colonel Reese.

COL Reese
Thank you, John. And thank you to our latest panel—a around of applause, please. [Applause] I think by serendipity, we ended up with an interesting discus-

sion, because if you recall—what did you say three months ago, John? When General Scales was here, he cautioned us about the dangers of hanging the future on one grand idea, or one great concept, and the discussion we just had illustrated some of the advantages of intellectual ferment. So, to the degree that we fermented the intellect here at Fort Leavenworth this week, I thank everybody who came and presented and discussed, and met with one another and asked questions—even from the Marines—and contributed to the success of our symposium. [Laughter]

Audience Member
You couldn't have done it without us. [Laughter]

COL Reese
Keep that man's mic turned off, please. [Laughter] No, but I thank all of you for coming. I do appreciate very much the time you have spent preparing for the conference.

One short anecdote. Yesterday afternoon, General Wallace had a meeting with his—I'm not sure what he calls it; I'll say "brain trust," but he invited me, so that can't be right—to discuss what he wanted people to focus on next year in the writing and research areas. I mentioned to him the advantages we get here at Fort Leavenworth from people like you, because we can harness intellectual horsepower from outside the Army to contribute to our cause, because your comments and your presentations will be part of our publication for this conference—it will be distributed worldwide throughout the Army. So again, thank you very much.

Appendix A
Conference Program

Day 1
Tuesday, 2 August 2005

0800 – 0815 **Opening Remarks**

Colonel Timothy R. Reese
Combat Studies Institute

Session 1

0815 – 0930 **Keynote Presentation**

Change During War: Contemplating the Future While Fighting in the Present
Major General (Ret) Robert Scales

Session 2

0945 – 1115 **Army Transformations Past and Present**

Army Transformations Past and Present
Brigadier General (Ret) John S. Brown
Center of Military History

Army Organizational Changes—The New Modular Army
Ned Bedessem
Center of Military History

The Evolution of the Stryker Brigade— From Doctrine to Battlefield Operations in Iraq
Dr. Jeff A. Charlston
Center of Military History

Moderator
Dr. Richard W. Stewart
Center of Military History

Session 3

1300 – 1430 **Organizing the Maneuver Fight**

Sinai 1973: Israeli Maneuver Organization and the Battle of the Chinese Farm
John J. McGrath
Combat Studies Institute

Asymmetric Warfare and Military Thought
Professor Adam Lowther
Columbus State University

Adopting to Maneuver Warfare in a Civil War Campaign: Union Reactions to Sterling Price's Missouri Expedition of 1864
Dr. Kyle S. Sinisi
The Citadel

Moderator
Professor John A. Lynn
University of Illinois

Session 4

1445 – 1615 **Organizing for the Low-Intensity Fight**

A Red Team Perspective in the Insurgency in Iraq
Colonel Derek J. Harvey
US Army, Pentagon

Moderator
Dr. Lawrence A. Yates
Combat Studies Institute

Day 2
Wednesday, 3 August 2005

Session 1

0800 – 0930 **Incorporating Change in Asymmetrical Operations: Vietnam**

Insurgent Logistics
Lt. Colonel Marian E. Vlasak
Command & General Staff College

MACV's Dilemma: The United States and the Conduct of the Ground War in Vietnam
John R. McQueney, Jr.
Severn, MD

Moderator
Dr. James H. Willbanks
Command and General Staff College

Session 2

0945 – 1115 **Special Topics on Wartime Transformation**

Use of Private Military Corporations (PMC) to Supplement Traditional American Ground Forces
Dr. Thomas E. Hennefer
Olathe, Kansas

Facing Genocide: The US Army as an Agent of Rescue
Dr. Keith Pomakoy
Adirondack Community College

Case for Using an Afghan Auxiliary Force to Support Expeditionary Operations in Iraq
Captain Roberto Bran
2d Infantry Division

Moderator
Lt. Colonel Marian E. Vlasak
Command & General Staff College

Session 3

1300 – 1430 **Organizing for the Logistics Fight**

Personal Observations of Logistics Operations in Kuwait and Iraq
Dr. Robert Darius
Army Materiel Command

Modular Logistics
Major Guy M. Jones
School for Advanced Military Studies

Moderator
Dr. Charles R. Shrader
Carlisle, PA

Session 4

1445 – 1615 **The Canadian Perspective**

Transforming the Brigade Team on the Battlefield: Modest Lessons in Coalition Operations From the War Diary of the First Canadian Armoured Brigade (1 CAB) in the Italian Campaign, 1943-1945
Major Michael Boire
Canadian Army
Royal Military College of Canada

Missile Defense: The Canadian Conundrum
Mercedes Stephenson
University of Calgary

Canadian Officer Education vs Training
Pamela Stewart
University of Calgary

Moderator
Mr. James F. Gebhardt
MIPR
Combat Studies Institute

Day 3
Thursday, 4 August 2005

Session 1

0800 – 0930 **Organizing to Fight Insurgency: Lessons From Chechnya**

Urban Operations, 1994-2005; Information Operations: Capturing the Media
Timothy L. Thomas
Foreign Military Studies Office

Regional and Global Impact of the Chechen War: GWOT Theater or Russian Imperial Maintenance; Chechenization and the Balance Sheet
Glen Howard
Jamestown Foundation

Evolving Nature of Chechen Resistance
Ray C. Finch
University of Kansas

Sustaining the Struggle: Interplay of Ethno-Nationalism and Religion
Njdeh (Nick) Asisian
Foreign Military Studies Office

Impact of a Decade of War Upon Russian Armed Forces
Major Matt Dimmick and Ray C. Finch
University of Kansas

Moderator
Timothy L. Thomas
Foreign Military Studies Office

Session 2

0945 – 1115 **Unit Manning and Training**

The Organizational Evolution of the Cadet Command, 1990-2003
Dr. Arthur T. Coumbe
US Army Cadet Command

0945 – 1115 **Unit Manning and Training** *(cont'd)*

Transformation and the Officer Corps: Analysis in the Historical Context of the US and Japan Between the Wars
William D. O'Neil
Center for Naval Analyses

Moderator
Dr. Curtis S. King
Combat Studies Institute

Session 3

1300 – 1430 **Transformation and Doctrine**

Looking in the Mirror: Applying the Scholarship on the Interpretation of US Army Performance in World War II to Current Operations
Master Sergeant Peter Clemens, USAR
Department of Homeland Security

1300 – 1430 **Transformation and Doctrine** *(cont'd)*

US Army Post-Vietnam Doctrine
Christina M. Fishback
Kansas State University

Moderator
John J. McGrath
Combat Studies Institute

1440-1500 **Concluding Remarks**
Colonel Timothy R. Reese
Combat Studies Institute

Appendix B
About the Presenters

Njdeh (Nick) Asisian is an Islamic analyst at the US Army's Foreign Military Studies Office, Fort Leavenworth.

Ned Bedessem has been a historian with the US Army Center of Military History (CMH) since 1986. He has worked in the Force Structure and Unit History Branch since 1990 and is currently the team leader for the Center's Modularity Task Force.

Michael Boire, Major, Canadian Army, teaches history at the Royal Military College of Canada, Kingston, Ontario, where he is completing a dissertation on Canadian armor in the Italian campaign. Born and educated in Montreal, Quebec, he has served in command and staff appointments in France, Germany, Bosnia, and Kosovo. He is a graduate of the French Army's School of Cavalry and Armor and of the École de Guerre in Paris. He also serves as a battlefield guide and film consultant.

Roberto Bran, Captain, US Army, is a graduate of the US Military Academy. He deployed to Afghanistan in support of Operation ENDURING FREEDOM, where he served 6 months as an embedded adviser to the Weapons Company, Quick Reaction Force, Afghan National Army (ANA) and 8 months as Interagency Strategic Plans Officer, Directorate of Strategic Plans and Policy (CJ5), Combined Forces Command—Afghanistan, where he worked on assorted politico-military projects, including the Afghan Guard Force and the National Reconciliation Initiative. Captain Bran is currently serving as G3 Chief of Training, he also acts as Chief of Training for the 2d Infantry Division, and is pursuing a master of social science degree from the Maxwell School of Citizenship and Public Affairs at Syracuse University.

John S. Brown, Brigadier General, US Army (Ret), has served as the Chief of Military History, CMH, since December 1998. While retaining his position at CMH, he retired from active duty 1 August 2004. General Brown graduated from the US Military Academy in 1971 and served as an armor officer for over 30 years, including commanding a tank battalion in Operation DESERT STORM and later a brigade of the 1st Cavalry Division at Fort Hood, Texas. He earned a Ph.D. in history from the University of Indiana and taught history at West Point.

Jeffery A. Charlston is an Army historian at CMH. Formerly program manager of The George Washington University's Teaching Center, Dr. Charlston also taught a doctoral course in strategy and policy at that institution's Elliott School

of International Affairs and completed the USMA Summer Seminar in Military History before joining CMH. He currently serves as the center's Pentagon liaison and teaches military history as an adjunct associate professor with the University of Maryland University College. Dr. Charlston has recently completed the *Department of the Army Historical Summary FY1999* and is just finishing the United States, 1865-Present volume in Ashgate Publishing's *International Library of Essays in Military History* and, with LTC Mark Reardon, a study of the 1st Stryker Brigade Combat Team through its first tour in Iraq.

Peter Clemens is an intelligence analyst with the Department of Homeland Security. He serves in the US Army Reserve as a senior NCO intelligence analyst assigned to US Special Operations Command. He holds a B.A. in economics from the University of Missouri, a B.A. in international studies from The American University, an MA in history from Kansas State University, and an MA in military studies from American Military University. His most recent professional publication compares the 9/11 Commission Report with the Pearl Harbor investigation, in the *Military Intelligence Professional Bulletin (MIPB)*. He has previously published articles in *Small Wars and Insurgencies* (1995); *Intelligence and National Security* (1998); *Contemporary Security Policy* (2000); and the *Journal of Strategic Studies* (2002).

Arthur T. Coumbe is the historian for the US Army Cadet Command, Fort Monroe, Virginia. He received a B.S. from the US Military Academy and a Ph.D. from Duke University and is a graduate of the Army Management Staff College. As a retired US Army Reserve officer, he served in various command and staff positions, including deputy commander, 902d Military Intelligence (MI) Group, Fort Meade, Maryland; and commander, 260th MI Battalion, Miami, Florida. Dr. Coumbe served as an adjunct faculty member at the University of California at Berkeley, Florida State University, St. Leo College, and Thomas Nelson Community College. He has authored numerous articles and books on Army ROTC history and the Franco-Prussian War of 1870-1871.

Kelvin D. Crow, born into a military family (his immediate family has over 100 years' collective military service), received a B.S. from the University of Missouri in 1976. He served as an infantry officer with assignments in the Berlin Brigade, HQ US Army, Europe, and as a Staff Ride Instructor in the CGSC History Department. He earned an M.A. from Oregon State University in 1988 and an M.M.A.S. from the Command and General Staff College in 1989. Mr. Crow has published several articles in the popular historical press and a book, *Fort Leavenworth: Three Centuries of Service* (Command History Office, Combined Arms Center and Fort Leavenworth, 2004). Since 2002 he has served as the Assistant Command Historian for the Combined Arms Center and Fort Leavenworth.

Robert Darius has been the Command Historian, US Army Materiel Command (AMC), since 1986. Dr. Darius earned a B.A. in history from Glenville State College, West Virginia, and M.A. degrees from the School of International Service, The American University, and from the University of Maryland. He earned a Ph.D. in government politics and international politics from the University of Maryland. Dr. Darius is author of, or has contributed to, *Reflections of Senior AMC Officials*; *Reflections of Former AMC Commanders*; *Evolution of AMC, 1962-1989*; AMC Commanding Generals Document Collection Program at AMC since 1986; and *The Role of the U.S. Army Materiel Command Logistics Support Group in the Hurricane Andrew Relief Operations*. His extensive oral history interviews with commanding generals of AMC, and other generals and senior executive officials in the United States, and abroad on Army materiel and logistics have resulted in numerous publications in AMC's Oral History Program. He also initiated two major publication series known as Logistics Issue Research Memoranda and Logistics Research Monographs in AMC.

Matthew Dimmick, Major, US Army, is an infantry officer and Eurasian foreign area officer. Major Dimmick is currently pursuing a master's degree at the University of Kansas in the Russian and Eastern European Studies Program. Major Dimmick commanded C Company and Headquarters Company, 2-6 Infantry Regiment, 1st Armored Division, and completed the Command and General Staff College in 2004

Raymond C. Finch III is the Assistant to the Director, Center for Russian, East European, and Eurasian Studies, University of Kansas. Mr. Finch is a former US Army Eurasian foreign area officer who served in Germany, Korea, and the United States. He spent a year as the Director of Corporate Security for Kroll Associates in Moscow. While in uniform, he produced a number of analytical studies dealing with the Russian military.

Christina M. Fishback is currently a graduate student in the military history program at Kansas State University. Her thesis work centers on US Army doctrine and is titled "Crisis of Confidence: Changing Doctrine in the Post-Vietnam Era." Ms. Fishback has worked as a historian at the Combined Arms Center, Fort Leavenworth, Kansas, and for the past 2 years at the Institute for Military History and 20th-century Studies at Kansas State University in Manhattan, Kansas. Her research interests focuses on the 20th-century US Army, counterinsurgency, intelligence, and military theory and doctrine. She intends to pursue a career in intelligence analysis.

James F. Gebhardt is a civilian contract historian on the staff of the Combat Studies Institute (CSI). He earned a B.A. degree in political science from the Uni-

versity of Idaho and a M.A. degree in history from the University of Washington. Mr. Gebhardt is the author of Leavenworth Paper No. 17, *The Petsamo-Kirkenes Operation: Soviet Breakthrough and Pursuit in the Arctic, October 1944*, CSI; and two Global War on Terrorism (GWOT) Occasional Papers, *The Road to Abu Ghraib: US Army Detainee Doctrine and Experience* and *Eyes Behind the Line: US Army Long-Range Reconnaissance and Surveillance Units*, CSI. He has also translated several large and small published works on Soviet military history and weapons. He is currently working on a study of detention operations in the GWOT for the Office of the Secretary of Defense.

Derek J. Harvey, Colonel, US Army, is a military intelligence and Middle East foreign area officer. He speaks several Middle Eastern languages including Farsi and formerly served on the Combined Forces Land Component Command (CFLCC) staff and as head of the military intelligence "Red Team" supporting CJTF-7 and Multinational Force Iraq in Baghdad. He currently works in the Pentagon.

Thomas E. Hennefer, Ph.D., was born in Long Beach California to the son of a World War II Navy veteran who started him on a lifelong love of military history. After 10 years in the private sector as a senior project manager in the software industry in California, Dr. Hennefer started consulting in the areas of productivity, leadership, and management. In addition to assignments as an adjunct professor, Dr. Hennefer has consulted many diverse companies. Dr. Hennefer holds a bachelor's degree in management and human relations, a master's in total quality management and statistical process control, and a doctorate in organizational management and leadership. He is the author of "Transitional Leadership in the Face of Crisis," a paper submitted in 2004 to the Arleigh Burke Essay Competition hosted by the US Naval Institute.

Glen Howard is President of the Jamestown Foundation, Washington, D.C. Mr. Howard is fluent in Russian and proficient in Azerbaijani and Arabic, and is a regional expert on the Caucasus and Central Asia. He was formerly an analyst at the Science Applications International Corporation Strategic Assessment Center. His articles have appeared in *The Wall Street Journal*, the *Central Asia-Caucasus Analyst*, and *Jane's Defense Weekly*. Mr. Howard has served as a consultant to private sector and governmental agencies, including the US Department of Defense and the National Intelligence Council, and major oil companies operating in Central Asia and the Middle East. He also serves as the Executive Director of the American Committee for Peace in Chechnya—a nonprofit organization dedicated to peacefully resolving the conflict in Chechnya.

Guy M. Jones, Major, US Army, was commissioned as an infantry officer in May 1994. Major Jones' previous assignments include Rifle Platoon Leader, Support Platoon Leader, Battalion S4, and aide-de-camp in the 101st Airborne Division (Air Assault); Battalion Adjutant, Battalion Assistant S3, and Brigade Assistant S3, 2d Brigade, 2d Infantry Division, Camp Hovey, Korea; Regimental Training Officer, Line Company Commander, HHC Commander, and Regimental Adjutant, 505th Parachute Infantry Regiment, 82d Airborne Division; and Secretary to the General Staff, 82d Airborne Division. Major Jones served in both Operation ENDURING FREEDOM and Operation IRAQI FREEDOM. He is currently a student in the School of Advanced Military Studies, Fort Leavenworth, Kansas.

Curtis S. King graduated from the US Military Academy (USMA) in 1982 with a B.S. in history and English literature. He received an M.A. from the University of Pennsylvania in 1992 and then was an instructor at USMA for 3 years. In 1998, he became an associate professor, Combat Studies Institute (CSI), US Army Command and General Staff College. While at CSI, Dr. King received his Ph.D. in Russian and Soviet history (1998) and spent a 6-month tour in Sarajevo, Bosnia (1999-2000) as a NATO historian. Dr. King retired from the Army in May 2002. In October 2002, he joined the staff ride team, CSI, as a civilian associate professor and is an adjunct professor at Kansas State University.

Jacob W. Kipp is Director, Foreign Military Studies Office (FMSO), US Army Training and Doctrine Command, Fort Leavenworth, Kansas, where FMSO hosts the Joint Reserve Intelligence Center. He is a graduate of Shippensburg University and received a Ph.D. in Russian history from Pennsylvania State University in 1970. In 1971, he joined the History Department of Kansas State University. In 1985, he joined the Soviet Army Studies Office (SASO) as a senior analyst. SASO became FMSO in 1991. He has published extensively on Soviet and Russian military history and affairs.

Adam Lowther holds a B.A. and M.A. in international relations from Arizona State University and Ph.D. from the University of Alabama. He is currently Assistant Professor of Political Science at Columbus State University. Prior to entering academia Professor Lowther served in the US Navy for 8 years aboard the USS Ramage DDG-61, with NMCB-17, and at Commander in Chief US Naval Forces Europe, London. Professor Lowther's work focuses on the American experience with asymmetric warfare and economic development in Asia and Latin America.

John A. Lynn earned a B.A. at the University of Illinois at Urbana-Champaign; an M.A. at the University of California, Davis; and a Ph.D. at the University

of California, Los Angeles (UCLA) in 1973. He is professor of history at the University of Illinois at Urbana-Champaign, and adjunct professor at Ohio State University. He held the Oppenheimer Chair of Warfighting Strategy at the US Marine Corps University, 1994-1995. He serves as president of the US Commission on Military History and vice president of the Society for Military History. Dr. Lynn has written several books, including *Battle: A History of Combat and Culture* (2003 and 2004) and *The Wars of Louis XIV, 1667-1714* (1999). He was recently awarded the order of the Palmes Académiques, at the grade of chevalier, by the French government.

John McGrath has worked for the US Army in one capacity or another since 1978. A retired Army Reserve officer, Mr. McGrath is a researcher/historian with the Combat Studies Institute. He also served as a mobilized reservist in 1991 in Saudi Arabia with the 22d Support Command during Operation DESERT STORM as the command historian and as researcher/writer with the US Army Center of Military History. Mr. McGrath is a graduate of Boston College and holds an M.A. in history from the University of Massachusetts at Boston. He is the author of numerous articles and military history publications and the books *Theater Logistics in the Gulf War* (Army Materiel Command, 1994) and *The Brigade: A History* (Combat Studies Institute, 2004). His forthcoming book, *Crossing the Line of Departure: Battle Command on the Move, A Historical Perspective*, is scheduled to be published by the Combat Studies Institute.

John R. McQueney, Jr., Major, US Army (Ret), earned a bachelor's degree with honors in history from the Pennsylvania State University. He earned a master's degree in history from the University of Maryland, College Park. A military intelligence officer, Major McQueney has served in a variety of staff and command positions in the United States, Korea, Germany, and Kosovo. His interest in Vietnam War-era history was peaked when he served as a Southeast Asia case officer in the Defense Prisoner of War Missing Persons Office and was the lead analyst for identifying the remains formerly held in the Tomb of the Unknowns. Major McQueney has served on a joint task force full accounting investigative trip to the Socialist Republic of Vietnam.

William D. O'Neil is Vice President and Chief Scientist, Center for Naval Analysis (CNA). He holds a B.A. and an M.S. from UCLA. Mr. O'Neil served as a Navy surface warfare officer on active duty in the early 1960s and remained very active in the reserve for many years. In 2000, he was named CNA's chief scientist, with responsibilities for work aimed at serving the needs of top-level defense policymakers, with particular emphasis on defense transformation. He has written many articles and monographs relating to defense technology and policy.

Keith Pomakoy has been an Assistant Professor of History at Adirondack Community College, Queensbury, New York, since 2003. He has also been adjunct instructor since 2002 at Hudson Valley Community College, Troy, New York. Dr. Pomakoy received a Ph.D. in international history from the University at Albany, State University of New York, in 2004. His primary area of research interest is the study of genocide.

Timothy R. Reese, Colonel, US Army, assumed duties as Director, Combat Studies Institute, in July 2005. Colonel Reese is a native of St. Louis, Missouri. Upon graduation from the US Military Academy, he was commissioned in armor and has served in a variety of command and staff positions in armor units in the United States and overseas with the 1st Cavalry, 3d Armored, 2d Infantry, and 1st Infantry Divisions. He has also served as Associate Professor of History at the US Military Academy. In June 1999, Colonel Reese commanded TF 1-77 Armor, 1st Inf Div, the first US tank battalion to enter Kosovo during the initial NATO occupation of that region. During 2003 he served as Director, Afghan National Army Design Team, Kabul, Afghanistan. Colonel Reese has earned a B.S. degree from the US Military Academy, an M.A. in European history from the University of Michigan, and a Master of National Security Studies from the Army War College. He is a graduate of Command and General Staff College and of the US Army War College.

Robert Scales, Major General, US Army (Ret), is currently President of COL-GEN, Inc., a well-respected consulting firm servicing the Department of Defense and industry. Before joining the private sector, General Scales served over 30 years in the Army and ended his military career as Commandant, US Army War College. General Scales is an accomplished author, having written several books on military history and the theory of warfare, including *Certain Victory, Firepower in Limited War*, and *The Iraq War: A Military History*, written with Williamson Murray, and published by Harvard University Press, October 2003. He is a graduate of the US Military Academy and earned his Ph.D. in history from Duke University.

Charles R. Shrader received a B.A. in history from Vanderbilt University and a Ph.D. in medieval history from Columbia University. Dr. Shrader served as an Infantry and Transportation Corps officer in the US Army, with tours in the United States, Vietnam, Germany, and Italy. Dr. Shrader was the first acting Director of the Combat Studies Institute and later held the General of the Army George C. Marshall Chair of Military Studies, US Army War College. His most recent published works are *The First Helicopter War: Logistics and Mobility in Algeria, 1954-1962* (Praeger, 1999); *The Withered Vine: Logistics and the Communist Insurgency in Greece, 1945-1949* (Praeger, 1999); and *The Muslim-Croat*

Civil War in Central Bosnia: A Military History, 1992-1994 (Texas A&M University Press, 2003; Croatian translation, Zagreb, Golden Marketing, 2004). Now an independent historical writer and consultant, Dr. Shrader resides in Carlisle, Pennsylvania.

Kyle S. Sinisi is an Associate Professor of History at The Citadel. He graduated from the Virginia Military Institute and received both an M.A. and a Ph.D. from Kansas State University. Dr. Sinisi is the author of *Sacred Debts: State Civil War Claims and American Federalism, 1861-1888* (Fordham University Press, 2003) and a coeditor of *Warm Ashes: Essays in Southern History at the Dawn of the Twenty-First Century* (University of South Carolina Press, 2003). He is presently at work on a study of Sterling Price's Confederate invasion of Missouri in 1864.

Mercedes Stephenson is a master's degree candidate in strategic studies in the Centre for Military and Strategic Studies, University of Calgary, Calgary, Alberta, Canada. She is also a military analyst for Stornoway Productions, hosting *The Underground Royal Commission Investigates*.

Pamela Stewart is a master's degree candidate in strategic studies, Centre for Military and Strategic Studies, University of Calgary, Calgary, Alberta, Canada.

Richard Stewart is currently Chief, Histories Division, Center of Military History, Fort McNair, DC. He received a Ph.D. from Yale University in 1986. Dr. Stewart was the Command Historian, US Army Special Operations Command, Fort Bragg, North Carolina, and Historian, US Army Center for Lessons Learned, Fort Leavenworth, Kansas. A retired colonel in military intelligence, USAR, with 30 years of commissioned service, he has deployed as a combat historian for Operation DESERT STORM (Saudi Arabia and Kuwait), Operations CONTINUE HOPE/Support to UNOSOM II (Somalia), MAINTAIN/RESTORE DEMOCRACY (Haiti), JOINT GUARD/JOINT FORCE (Bosnia), DESERT SPRING (Kuwait and Bahrain), and after 9/11 to Afghanistan in support of Operation ENDURING FREEDOM.

Timothy L. Thomas is an intelligence analyst at the US Army Foreign Military Studies Office, Fort Leavenworth. His areas of research interest include Russian and Chinese information warfare, Central Asia and the Indian subcontinent, and the Afghan wars.

Marian E. Vlasak, Lieutenant Colonel, US Army has served for 19 years as an ordnance officer. She holds bachelors' degrees in mathematics from New Mexico Institute of Mining and Technology and from West Point with a double concentration in history and international relations. She holds a master's degree in history from Syracuse University and is currently working on her Ph.D. there.

Previous assignments include tours with the 1st Armored Division and 10th Mountain Division, including service in Somalia. She had served as an Assistant Professor of American History at West Point and taught the core military history courses at the Command and General Staff College, as well as the History of Logistics elective. She was the Arthur L. Wagner Research Fellow, Combat Studies Institute, AY 04-05. Her forthcoming title from the CSI Press is *"Tracking the Goods"—Methods of Critical Supply: World War II to the Present*.

James H. Willbanks is Director, Department of Military History, US Army Command and General Staff College. He is a lieutenant colonel, US Army (Ret), with 23 years' service as an infantry officer in various assignments, including being an adviser in Vietnam and duty in Panama, Japan, and Germany. He is a graduate of the Command and General Staff College and the School of Advanced Military Studies. He holds a B.A. from Texas A&M University and an M.A. and Ph.D. in history from the University of Kansas. He is the author of *Abandoning Vietnam* (University Press of Kansas, 2004), *The Battle of An Loc* (Indiana University Press, 2005), and a forthcoming book on the Tet Offensive to be published by Columbia University Press.

Theodore A. Wilson earned a B.A. in history and political science, an M.A. in history, and a Ph.D. in US diplomatic history from Indiana University. A member of the University of Kansas faculty since 1965, he teaches 20th-century US military, diplomatic, and political history. Dr. Wilson's current research focuses on the intersection of politics, national security policies, and foreign affairs during the period 1940-1975. He is completing a book on the organization of US military forces titled *Building Warriors: The Selection and Training of US Ground Combat Forces in World War II*.

Lawrence A. Yates is a member of the Research and Publication Team, Combat Studies Institute, Fort Leavenworth, Kansas. He received a B.A. and an M.A. in history from the University of Missouri, Kansas City, and a Ph.D. in history from the University of Kansas. He is the author of several articles on US contingency operations since World War II, has written a monograph on the US intervention in the Dominican Republic in 1965, is coeditor and a contributor to a book on urban operations, and is author and coauthor of a study of US military operations in the Panama crisis, 1987-1990, and Somalia, 1992-1994, respectively.

Appendix C
Acronyms

AAC	Army Air Corps
AAF	Army Air Forces
AAN	Army After Next
ACTS	Air Corps Tactical School
AEF	American Expeditionary Force
AFRVN	Armed Forces of the Republic of Vietnam
AGR	Active Guard/Reserve
AIC	Army Industrial College
AIT	Advanced Individual Training
AMC	Army Material Command
AMF	Afghan Militia Forces
AOR	Area of Responsibility
APC	Armored Personnel Carrier
ARS	Armed Reconnaissance Squadron
ARVN	Army of the Republic of Vietnam
ASAT	Anti-Satellite
ASC	Army Staff College (Japan)
ASW	Anti-Submarine Warfare
AWC	Army War College
BCT	Brigade Combat Team
BMD	Ballistic Missile Defense
BRAC	Base Realignment and Closure
BSB	Brigade Support Battalion
C2	Command and Control
CAB	Canadian Armoured Brigade
CAC	Combined Arms Center
CAF	Canadian Armed Forces
CALL	Center for Army Lessons Learned
CAR	Canadian Airborne Regiment
CCRC	Central Cuban Relief Committee
CDEE	Canadian Defence Education Establishments
CDR	Commander (naval rank)
CF	Canadian Forces
CGSC	Command and General Staff College
CGSS	Command and General Staff School
CJTF-7	Combined Joint Task Force 7

CMH	Center of Military History
CONUS	Continental US
CPT	Captain (army rank
CRC	Combat Readiness Center
CSA	Chief of Staff of the Army
CSS	Combat Service Support
CTT	Common Task Training
CV	Aircraft Carrier
CVL	Light Aircraft Carrier
DCA	Defensive Counter Air
DCSPER	Deputy Chief of Staff for Personnel
DLI	Defense Language Institute
DND	Department of National Defense (Canadian)
DSP	Defense Support System
EKV	Exoatmospheric Kill Vehicle
FA	Field Artillery
FAC	Forward Air Controller
FCS	Future Combat Systems
FMTV	Family of Medium Tactical Vehicles
FOB	Forward Operating Base
FSB	Forward Support Battalion
FSC	Field Service Company
GAO	Government Accounting Office
GBMD	Ground-Based Midcourse Defense
GHQ	General Headquarters
GVN	Government of Vietnam
GWOT	Global War on Terrorism
HBCT	Heavy Brigade Combat Team
HBCU	Historically Black Colleges and Universities
IBCT	Infantry Brigade Combat Team
ICBM	InterContinental Ballistic Missle
ID	Infantry Division
IDF	Israeli Defense Force
IED	Improvised Explosive Device
IJA	Imperial Japanese Army
IJN	Imperial Japanese Navy
IPSD	International Policy Statement on Defense
ITW/AA	Integrated Tactical Warning and Threat Assessment

JFCOM	US Joint Forces Command
JFLCC	Joint Force Land Component Command
JROTC	Junior Reserve Officer Training Corps
JTF	Joint Task Force
KIA	Killed In Action
KLT	Thousand Long Tons
KMT	Kuomintang (Chinese Nationalist Party)
LIC	Low Intensity Conflict
LMSR	Large, Medium-speed, Roll-on/roll-off Ship
LOC	Lines of Communication
LSA	Logistic Support Area
LSE	Logistics Support Element
LUMES	Light Utility Mobility Enhancement System
MACV	US Military Assistance Command, Vietnam
MAD	Mutually Assured Destruction
MCC	Missile Correlation Center
MHE	Material Handling Equipment
MP	Military Police
MSO	Mission Staging Operations
MSR	Main Supply Route
MTT	Mobile Training Team
NCO	Noncommissioned Officer
NIC	National Intelligence Council
NER	Near East Relief
NORAD	North American Aerospace Defense Command
NSC	Naval Staff College
NTC	National Training Center
NVA	North Vietnamese Army
NWF	National War Fund
OCA	Offensive Counterair
ODB	Officer Development Board
OEF	Operation ENDURING FREEDOM
OER	Officer Evaluation Report
OFT	Office of Force Transformation
OIF	Operation IRAQI FREEDOM
OODA	Observe, Orient, Decide, Act
OPFOR	Opposing Forces
OSC	Operations Support Command
PAVN	Peoples Army of Vietnam

PBS	Public Broadcasting Corporation
PLAF	People's Liberation Armed Forces
PMC	Private Military Corporations
PME	Professional Military Education
PROVN	Program for the Pacification and Long-Term Development of Vietnam
QDR	Quadrennial Defense Review
QRF	Quick Reaction Force
ROE	Rules of Engagement
ROTC	Reserve Officer Training Corps
RPG	Rocket Propelled Grenade
RSOI	Reception, Staging, Onward-movement, and Integration
RSTA	Reconnaissance, Surveillance and Target Acquisition
SAM	Surface to Air Missile
SAMS	School of Advanced Military Studies
SASC	Senate Armed Services Committee
SBCT	Stryker Brigade Combat Team
SNLF	Special Naval Landing Forces
SOF	Special Operating Forces
SRBM	Short Range Ballistic Missile
SSN	Space Surveillance Network
SSZ	Specified Strike Zone
TF	Task Force
TPU	Troop Program Units
TSC	Theater Support Command
TRADOC	US Army Training and Doctrine Command
TTP	Tactics, Techniques and Procedures
UCP	Unified Command Plan
UN	United Nations
USAAC	US Army Air Corps
USAF	US Air Force
USAFISA	US Army Force Integration Support Agency
USAR	US Army Reserve
USMC	US Marine Corps
USN	US Navy
USNORTHCOM	US Northern Command
USSPACECOM	US Space Command

USSTRATCOM	US Strategic Command
VCSA	Vice Chief of Staff of the Army
WMD	Weapons of Mass Destruction
XO	Executive Officer