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**BATTLING THE “HYDRA”: CHANGING OPERATIONAL FACTORS IN 4TH  
GENERATION WAR**

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract of

**BATTLING THE “HYDRA”: CHANGING OPERATIONAL FACTORS IN 4TH  
GENERATION WAR**

September 11, 2001 marked the end of an era. On that sorrowful day, our nation was brought face to face with an enemy unlike any for which we had previously prepared -- warfare's very *nature* had changed. It confirmed the evolution of war beyond its first three generations to a 4th generation; the realm of the amorphous that exacerbates our ability to identify, exploit, or apply our superior military power in ways that can directly (or indirectly) effect the adversary's center of gravity. It is our nation's and her armed forces greatest fear -- a 'Hydra' -- unified only by a 'dream' that is grounded in non-Western rationality and subject to varied interpretation even among its disciples. This paper demonstrates that the normal determinants of an *operational* center of gravity, *time*, *space*, and *force*, become incidental when analyzing an adversary whose power lies not in quantitative 'means,' but in its qualitative 'roots.' It is warfare that compresses the traditional levels of war, requiring new measurements based upon the intangible realities of *culture*, *psychology* and *information*. Finally, it examines how CentCom can use these expanded factorial assessments to better leverage its warfighting capabilities.

## Overview

September 11, 2001 marked the end of an era. On that sorrowful day, in horrific fashion, our nation was brought face to face with an enemy unlike any for which we had previously prepared. On that day, America became aware that warfare's very *nature* has changed. It confirmed the evolution of war beyond the primary characteristics of its first three generations to a 4th generation. From state on state confrontation that employed identifiable armies, to the realm of 'shadow' warriors and organizations whose strategic and operational center of gravity disappear in the ideological and intangible miasma of transnational groups and terrorist cells.

This war embraces brutality, it justifies bloodshed through a misconstrued piety and rewards its adherents with promises of spiritual redemption. It is the province of warriors who are at once invisible and frustratingly public, determined and willful, silent and indiscriminate. They are, "erratic primitives of shifting allegiance, habituated to violence, with no stake in civil order." [1] They do not respect treaties, conventions or customary law; their tactics characterized by measured indifference, balanced by an evil purposefulness in the targets selected. It is our nation's and her armed forces greatest fear -- a 'Hydra' - - unified only by a 'dream' grounded in non-Western rationality and subject to varied interpretation even among its disciples.[2]

It is the realm of the amorphous, exacerbating our ability to identify, exploit, or apply our superior military power in ways that can directly (or indirectly) effect the adversary's "characteristics, capabilities, or sources of power from which their military force derives its freedom of action, physical strength, or will to fight" -- its center of gravity. [3] It is an adversary that refuses to play by the rules or to play even the same game.

This paper will demonstrate that the normal determinants of an *operational* center of gravity, grounded in the current factors of *time*, *space*, and *force*, and focused upon tangible assessments of combat power, force ratios, and attritional capacities, are incidental in analyzing an adversary whose power lies not in these conventional quantitative ‘means,’ but rather in its qualitative ‘roots.’ That this warfare, by its reliance on an a unifying ‘dream,’ compresses the traditional levels of war, requiring us to consider new methodologies and measurements for identifying the main effort of our military actions based upon intangible realities -- *culture*, *psychology* and *information*. Most importantly, it will examine how CentCom can, through the use of such filtered assessments, better leverage our military technology, organization, and operational doctrine to defeat al-Qaeda.[4]

### **War by Generation**

For many military commentators, war has been compartmentalized by ‘revolutions in military affairs’ based predominantly upon advances in technology or the emergence of a ‘new elite’ (such as armor, air, or information). In the mid-90's, prophetic writers like William Lind, G.I. Wilson, and Thomas Hammes went beyond the ‘tangibles’ and explored war as a series of ‘generations;’ conceptually incorporating the technical evolution with the overarching social implications of political, social, and economic changes. From this analysis, they concluded that warfare had evolved through three generations, and was rapidly advancing towards its next, or 4th generation -- their theory validated by the eerily similarities to the tactics used by the criminals of September 11. [5] (See Appendix A for explanation of 4th Generation War.)

The first three generations of modern war focused, in turn, on massed manpower, massed firepower, and finally in the merging of both in the application of maneuver. [6] Their commonalties were their focus on defeating the enemy *militarily* -- through armed conflict. The most dramatic change

in the predicted 4th generation would be its tendency towards *complex engagement*, fought not only among the spectrum of conflict but across the full continuum of human activity and engaging new means of national power. The 'new' war would prefer selected demonstrations of high brutality designed to produce dramatic *psychological* effects. Actions would be synchronized, not in time or space, but in ways seeking to maximize their impact in the political, economic, and social arenas. Military power would be employed, but its real strength would lie in its ability to effectively exploit the informational realm by a combination of networks and the mass media -- sustaining their dream and enrapturing their adherents. In wars where military power is less pronounced, traditional methodologies for analyzing the *nature* of the enemy become less useful. This suggests that military planners must reconsider our methods and means of strategic assessment.

Military strategic planning has been based upon accepted historical constants and norms that were bounded by a defined physical environment, an identifiable territorial state, a distinct national character, and the tacit acceptance that there exists a balance of power corollary to interstate relations.[7] But, as these authors warned, 4th generational war would challenge historic precedent. The 4th generation physical environment would be less defined and, as Al-Qaeda aptly demonstrates, increasingly more global in nature. It transcends the territorial state, having little respect for sovereignty or balance of power mechanisms. While possessive of a discernible character, grounded in a defiant and well-developed hatred for the United States, they are not necessarily culturally homogeneous. They are an 'army,' but its character defies the orthodox application of massed military power or strategies of annihilation and decisive battle.

Unlike conventional 1st -3d generation operations, where tactical actions link to a recognizable operational scheme, organizations like Al-Qaeda provide few indicators of a concerted operational

design. Each offensive action, tactical in execution, appears random and seemingly independent of intentional integration in a definable grand ‘campaign.’ It has eschewed and compressed the operational level; tactical action is tied directly to strategic ends. Without a discernible ‘operational’ level, military planners are denied a clearly defined *operational* center of gravity, traditionally the concentration of the enemy’s armed force [8].

With an enemy no longer constrained by the conventional constraints of attaining predicated force ratios, our decision templates and matrixes, reliant upon massed, targetable military force, have less utility. This is the challenge of Al-Qaeda and proponents of 4th generational war. By their design, methodology, and inherent complexity, they render many traditional means of assessing enemy strengths and weaknesses indeterminable, incidental, or worse, inapplicable. Instead, as Al-Qaeda validates, the predominant operational factors of 4th generation warriors will be more ‘intangible,’ challenging us to change current doctrine and attempts to reduce war to algebraic formulae.

### **Current Operational Doctrine**

Operational art, as advanced by the senior military war colleges, is the evolutionary product of our national experience in conflict. While exposing senior leaders to a variety of noted theorists of war, American thought has gravitated towards the teachings of Carl von Clausewitz. His emphasis on absolute victory, achieved by physically destroying an opponent’s armed forces in battles of annihilation, have become the American military planners “gospel.” [9] From his teachings, we have derived our recognized, orthodox, “American” approach to war -- one reliant upon technology, mass, and the concentration of force applied at a decisive, determinable, and usually geographically or force-oriented point.

War is taught in compartmentalized form, consisting of three hierarchical, but interrelated levels. The highest is the strategic level, where national policy holds preeminence over theater military strategy, its requisite subset providing direction to winning wars and employing military force. The lowest, the tactical, focuses upon the application of combat power to defeat an enemy at a particular time and place through the arrangement of 'things' in different schemes and methods. The operational level, a 1960's phenomenon, was derived, ironically, from Soviet doctrine and provides a link, allowing planners to sequence and synchronize the national, theater, and tactical objectives with the resources and forces to ensure mission success across the spectrum of conflict.[10]

Senior service schools focus upon the operational 'science;' developing elaborate campaign plans based upon operational factors and tables that capture the measurable. Hours are spent in contemplating movement rates (time), areas of operations (space), and order of battle (forces), all tempered by those combat verities recognized as 'principles of war.' Future operational planners at these institutions are inundated with the 'fundamentals' of *joint*-ness, and focus on consolidating, moving and synchronizing large multi-service forces in major operations and as parts of theater *campaigns*. Their normal objectives remain aimed at the destruction of like forces -- large, identifiable, and *conventional* -- Desert Storm redux.

Relatively speaking, only 'seconds' are dedicated to providing the future leader with a true appreciation of the military 'art' that allows you to gain experience, to develop the *coup d'oeil* that allows you to generate innovative approaches to victory. A crucial aspect of 4th generation (or any) war, insists that planners go beyond the physical to consider the moral and mental aspects -- the will -- that motivates your enemy. Despite the embarrassing lessons of Vietnam, Somalia, and Lebanon, we remain steadfast in our focus on 'things.' We continue to dismiss the anomalies of unconventional

success as the products of a flawed application of superior technology, adamant that victory is obtained by better planned application of unrestrained technology and forces.

Doctrinally, operational assessments, even of unconventional enemies, are mired in the measurable factors of *time*, *space*, and *forces*. These determinants, are rational only when applied to professional, recognizable nation-state armies, reliant upon the existence of identifiable force structures with their inherent limitations/constraints. In most ‘wargame’ simulations at the senior schools, the enemy graciously provides the ‘form’ necessary to facilitate their applicability.

Of more serious concern, if challenged by students as to ascendancy of the asymmetrical armed forces like Al-Qaeda, the schools adamantly insist that, by learning the intricacies of planning massive, major theater enterprises, it makes you better prepared to do lesser, limited, and progressive operations. This contention, that if you can do the ‘big stuff,’ the ‘little stuff’ is easy, was proven wrong in Vietnam. Worse, it dangerously dismisses the historical lessons of unconventional wars of which 4th Generation is most asimilar. The future holds that, if the army is not so organized, if they are more amorphous or consist of an ‘ecosystem’ that is more ‘dragon’ than ‘elephant,’ then time, space, and forces, the traditional measurements, must be reconsidered and altered. [11]

*Time* is both a combat multiplier and an inhibitor; a constant concern for both adversaries in war. For Americans, normally engaged in distant wars demanding force projection, it is essential in the development of operational plans. Time is viewed relative to the enemy’s capacity to respond or transition to our actions and, inarguably, remains an important strategic parameter even against forces like Al-Qaeda. What has changed, however, is that these forces are not linked to synchronized activity or reliant on large mobilizations. For Al-Qaeda, patience and unpredictability is an ally, they operate on a different, less perceptible time schedule. .

Unlike professional armies that require marshaling to move, the elemental independence of these groups precludes a distinguishable cycle of movement. This stymies our ability to predict the timing required for supposed action. Al-Qaeda is a dispersed 'global' army, whose independence makes the nature of tomorrow or the measurement of yesterday varied within and between their loosely-controlled network of adherents.

But, while protraction is an ally for the terrorist, maintaining the faith of its adherents demands action -- this is a weakness. Terrorist action must be taken periodically to ensure quick recognition and to obtain perceivable and rapid 'victories to retain allegiance to the cause -- the dream that constitutes their strategic center of gravity. To regain control of time, our planners must learn to preempt this necessary 'cycle of action' through a better understanding of the *cultural* and *psychological* underpinnings critical to maintaining their 'cause.'

*Space* considerations define the physical parameters for military action. While not intentional, space has normally been addressed linearly, confined in recognizable boundaries that delineate the 'playing field.' In preparing the battlespace, we identify the obstacles to movement -- weather, environment, facilities -- acknowledging restrictions and limitations of sovereignty and political/legal convention. In war with Al-Qaeda, our dilemma is how to define the 'space' of an international organization uninhibited by such rules or boundaries. Where the enemy is not restricted to territory or nation-state and who can leverage commercial satellite information and communications, the world becomes the battlefield. To define or limit space by traditional factors becomes increasingly difficult for the 'operational' planner.

Finally, *force* factors are currently examined to assist in developing force ratios, requirements and exploitable asymmetries. For all the reasons noted above -- dispersion, decentralized command

and control, and presumed autonomy of initiative, timing, and action -- computations for correlating procedural force-on-force formulas are of marginal utility. As currently taught, implicit in force analysis are the consideration of the combat intangibles of will, morale, and motivation -- the elements of culture and psychology. But, our assessments currently lack a recognized methodology to provide the necessary granularity to address unconventional forces like Al-Qaeda.

In wargame after wargame, instead of confronting these challenges, the preponderance of planning stays tethered to the traditional tangibles of physical force, materials and people. While this simplifies the essential planning tasks of recognizing enemy and friendly centers of gravity, determining critical vulnerabilities, and determining a desired endstate, it does not prepare us for the realities of future war. As recent operations in Afghanistan clearly demonstrated, even when devoid of an enemy who will stand and fight (Taliban/Al-Qaeda), conventionally-trained planners resort to 'finding' an enemy that will allow conventional confrontation -- seeking a means for orthodox response to an unorthodox threat. As many in the Bush administration now acknowledge, our campaign was, "a desperate attempt to fit the 'round' Taliban/Al Qaeda peg in to the 'square' hole of conventional (war) planning"[12]. Well executed, it allowed the military to respond 'in kind,' providing a tangible and definable force that could be readily attrited. While symbolically destroying a repressive regime and interdicting Al-Qaeda paramilitary training bases and 'sources of support,' we must carefully question how much it actually reduced or damaged Al-Qaeda's strategic center of gravity -- its dream of a glorious Islamic republic governed by the tenets of Islamic law and its avowed hatred for America (See Appendix B).

To counter a force like Al-Qaeda, one that is sophisticated but reliant on superstition, spiritual but reliant on economics, amorphous but unable to remain invisible, we must distill new factors that will extract and expose his weakness and allow us to dissipate and destroy this 'dream' from which his

power emanates. If, as in the case of Al-Qaeda, his strength is vested in the less corporeal domain of 'ideas,' current assessments of *time*, *space*, and *force* will not suffice. While we still need to consider and respect his traditional military capabilities [13], we must revise, refocus and expand our assessments.

### **Operational Factors in the 4th Generation**

The 4th generation of war will require a fundamental shift in priorities among the elements of national power, with military power being, perhaps, the least applicable to the threats of the future.[14] Within the realm of national military power, a similar shift must occur among the three primary categories of national military power: people, ideas, and hardware. [15] While changes in conventional war have often centered on the last category, 4th generational war is grounded in the first two. People and the human mind will be the point of main effort, the driver that will advance ideas and provide the focus and catalyst for the hardware. This demands that the operational factors utilized in our planning must likewise focus on the factors that influence and provide substance to the people and their ideas. These factors are encompassed in the comprehensive consideration of *culture*, *psychology*, and *information*.

### **Culture**

*Culture* provides us an understanding of what is important to the enemy, allowing us to consider it from his perspective and through the prism of his religion, ethnicity, and societal background. From this we learn the importance and value he places on the objective -- this dream that he protects. Cultural understanding is the critical underpinning to determining the ways to address the 4th generation enemy. To provide a foundation, we must develop a template that defines culture and incorporate it as absolutely essential to the Commander's preparation of the battlespace. Currently, no such template

exists, resulting in minimal cultural assessments that are haphazard, limited, or worse, permitted to be wrongly filtered through Judeo-Christian perceptions of what is important to us -- not the adversary. The example in Appendix C provides the operational planner a wide range of factors to be considered, factors that will bring specificity to cultural analysis. But, to assess culture requires much more than simply adding factors or incorporating a planning checklist -- the 'how' presents the greater challenge.

To broaden our base of cultural experience, we must consider a program similar to a recent proposal by former Secretary of the Navy Richard Danzig. He initiated a program that permitted mid-grade officers the opportunity to work in the private sector on a professional 'sabbatical' to enhance the connection between the military and civilian communities. An expansion of this program might allow similar military sabbaticals to such agencies as the Peace Corps, United Nations, and as observers within various theaters in turmoil. Like Major Pete Ellis, whose experience in traveling the Pacific prior to World War II gained him an unmatched understanding of the rising Japanese threat and tactics, these officers would spend time immersed in cultures and in conflict -- both invaluable to leadership in war. [16] Further, it should be extended to include our senior noncommissioned officers, the individuals who will, by the nature of 4th generation war, be required to also directly interface and overcome cultural barriers.

Like assignment to special education and military skills courses, military leaders should receive incentives for language proficiency beyond the current programs. At a minimum, officers should be required to acquire and maintain foreign language capability as a prerequisite to operational command. By learning another language and culture, assignment and promotion opportunities should be enhanced. It is not important which language is learned, rather it is the experience of learning to understand a

different culture that provides us advantage. Just as we qualify in rifle marksmanship and map reading, cultural knowledge should be a required proficiency.

Finally, the Defense Department must standardize all-service assignment policies to volatile, culturally-sensitive areas. We can ill-afford more incidents like those of Air Force LtCol McSally, whose disdain for Saudi and Islamic custom strained Arab relations and served as fuel for the diatribes of Al-Qaeda. While I applaud her service and respect her reasons for protest, her actions did little to help her country counter international accusations of our cultural arrogance that feed the terrorist ‘dream.’ In war, all of our men and women are needed; in peace, we must weigh the advantages of selective, screened assignment. Service personnel must make cultural accommodations on behalf of the greater strategic objective of assuaging host nations’ mistrust of our presence.

### **Psychology**

*Psychology* is an adjunct to understanding the culture. It determines the constituency, coalesces their commitment, and sustains their motivation. Understanding the psychology of groups like Al-Qaeda allows us to better discern viable military, economic, or even spiritual approaches to defeat them. This assessment permits us to refine and focus our means of combat towards our goal to cause the adversary to reconsider the legitimacy of his belief -- to deny the dream. We seek to force his hand, to cause, “(s)hifts in time and alignments, cultural assumptions, players and local conditions,” purposefully, “eliminat(ing) the applicability of the faith. One destroys the regime from within...” [17] More importantly, such dislocation sets a condition that invites the enemy to make tactical mistakes that amplify their military vulnerabilities.

Our cultural assessment ‘piece’ is the guidepost for determining military means to effect the adversary’s psychology. For Al-Qaeda and 4th generational warriors, American forces must depart the

conventional and enter into the realm of ‘controlled irrationality.’ [18] Our goal in any offensive action, is to take the initiative from the adversary. Initiative can be taken a number of ways, but each is grounded in attaining surprise -- physically, geographically, technologically, or through *psychological dislocation*. The lessons of war reveal, as even the orthodox Clausewitz warned,

“...he must not be given time to recover. Blow after blow must be struck in the same direction; the victor in other words must strike with all his strength, and not just against a fraction of the enemy’s . Not by taking things the easy way -- using superior strength to filch some province, preferring the security of the minor conquest to a major success -- but by *constantly seeking out his center of power, by daring all to win all, will one really defeat the enemy* (emphasis added).” [19]

To fight Al-Qaeda we must, lacking the physical, seek the psychological. Al-Qaeda and their patrons must not know when, how, or if we will strike them. They must be shown that our pursuit is relentless, our retribution terminal, and complete. When we strike, it must be hard and fast, understanding that risk is essential to victory. Our nation and allies must accept that, to erode terrorist organizations demands more than incarceration, it will demand violent action. National leaders must recognized that we will need to take unilateral action to, as our President has stated, refuse sanctuary to our enemy within the sovereign boundaries of our enemies -- or even our allies. We must sustain this psychological initiative to disrupt their cohesion and destroy the belief that they are somehow ‘protected’ by the supernatural. This fear of extermination -- unannounced, unexpected, and executed in a most terrible and violent way -- is intended to psychologically unbalance our enemy and best allows us to dictate the ‘rules of the game. The roots of this strategy are found in the writings of British theorist Sir B.H. Liddell Hart who proposed the indirect approach, concluding that, “In offensive strategy...(w)hatever the *form*, the *effect* to be sought is the dislocation of the opponent’s mind and dispositions...” [20]

Such action requires a shift in the cultural mindset of our nation and her military forces. Indeed, “(t)he American military, war shaped by the dynamics of the unconventional is beyond our experience. Even to explain by analogy or historic example fails because the conventional are attuned to other responses.” [21] We are disdainful of military preemption because, “especially in America, any recourse to violence seems alien, aberrant. The warlords of Bosnia, the tribes of Sierra Leone, the urban guerrillas in Rome or Berlin are all weird, abnormal, unreasonable and unreasoning.”[22] As a nation, we remain inscrutably respectful of nations who do not proffer us the same respect in return and, as a result, American responses had, even post-September 11th, been reasonably predictable. Just as we have demonstrated throughout the ‘80’s and ‘90’s, when forced to react, we are content for the ‘military’ solution to be a technological fix. If ground buildup is necessary, and this option is usually fought vociferously, we prefer to insert stodgy, oversupplied forces encumbered with orthodox weapons and schedules, seeking to win with minimal casualties. We fight as Americans, with little regard for the cultural implications or psychological impact of our military actions. To win in the 4th generation, this must change.[23]

American leaders and her warfighters must acknowledge the changing face of war and adapt our military means to fit divergent, and often, seemingly aberrant, warrior cultures. It will demand the expansion of unique, specifically-trained forces that are, first and foremost, aggressive, flexible, and understanding of the culture and psychological ‘triggers’ of the adversary. This does not suggest that our moral conduct should be compromised, but admits that we must become more irregular and unconventional. As noted, we must be willing to raise our level of violence -- seeking retribution not against a people, but decisive action against individuals -- in order to overcome the violent. As our operations in Afghanistan did clearly demonstrate, the nucleus of these forces exists in the élan of both

our special operations and deployed Marine forces. But, as the expanse of 4th generation-type war will, inevitably, stretch the existing force structure too thin. Central Command must take the lead in advancing this as a warfighting priority for future DoD force structure allocations.

### **Information**

*Information* perpetuates the ‘cause’ and forms the adversary’s perception of reality and connectivity -- both critical to retaining psychological focus and direction. By the manipulation of information, Al-Qaeda can aggrandize the ideal and solidify their ‘psychological’ foundations. Denial of public recognition would obfuscate the dream and disrupt the effectiveness of his terrorist campaign. “What is sought by the terrorist is legitimacy: righteousness in action and recognized by the avowed constituency by the international community, and even by the opponent.”[24]

In this arena, our enemy again retains the initiative. They have exploited our societal strength, our openness to presenting information to the world, ‘warts and all.’ They selectively portray us in the light of their choosing -- jaded to ‘sell their desired perceptions and reinforce their ‘dream.’ We continue to allow them to utilize and employ overtly biased sources and outlets that eagerly disseminate and perpetuate their misconstrued piety and openly support and justify their abhorrent actions. Here at home, civil libertarians insist we provide terrorist and their organizational cells privacy protection, even at the expense of national security.

To date, despite being the most technologically advanced nation in the world, we have chosen to limit our military technology to passive (defensive) actions in information warfare.[25] We must be willing to use our knowledge to interdict cyberspace and defeat hate groups seeking to use it as a vehicle for our nations’ destruction. The 4th generation adversary has no qualms of striking our systems; we must then ensure they understand that, like attempts at conventional military confrontation,

this is a war they assuredly cannot win.[26] At the very least, we must demonstrate and make it perfectly clear that we can, and we will, interdict their ability to disseminate their fraudulent messages and information -- when and if we choose to do so. As James Adams expressed in his seminal text on information warfare, The Next World War,

“Information warfare promises real solutions to the challenges of the post-Cold War world. Not only might it be possible to take on the drug barons and terrorists with the new tools that are either available or being developed, but there are wars that might be won as well.[27]”

Instead, our passive mentality has permitted Al-Qaeda to continue to dominate the informational (not to be confused with the intelligence) realm of strategy. They leverage high-tech commercial communications to bind their adherents and demonstrate their arrogance and resilience. They are seen as masters at hiding, misdirecting, and obscuring the truth -- controlling the *psychology* of this war through information. Unquestionably, we are militarily capable of reducing their effectiveness in their control of information.

A clear understanding of this enemy strength provides us with a potentially exploitable vulnerability -- the reliance of decentralized forces on information. To neutralize their advantage, we must pursue *active* means of informational warfare. The same technologies that allow us to incapacitate conventional military command and control nodes can also intrude, interfere, and jam their preferred commercial means for disseminating their hatred to their target populations. Additionally, ‘worms’ and ‘trojan horses’ are but a few of the active means we could employ to interdict an enemy reliant on information to survive and sustain their ‘dream.’[28] Such action is only precluded by our uniquely western sense of ‘fair play,’ a misplaced sense of morality that allows organizations that cultivate hatred, like Al-Jazeera, to seed and cultivate the Islamic world in the mythology of terror groups like Al-Qaeda and manipulate the media to present jaded misrepresentations of American actions and policies, while

we provide no balanced response. We must apply our existing means and the technology to limit such diatribes. We require only the will and national approval to take the initiative.

Beyond technology, we must leverage our own national information capabilities through the expansion of “reach-back” programs for forward-deployed programs and exploit our academic and interagency capability. Scientists and University professors, “...scholars with profound insights into the nations that produce or harbor terrorists.” [29] Each could provide us needed expertise and ‘out of the box’ thinking to assist our warfighters. As Adams noted,

“Today, competent scientists and engineers are part and parcel of the efforts of the Department of Defense, the Central Intelligence Agency, the National Security Agency, and the Federal Bureau of Investigation. Together, these agencies have a bewildering array of programs designed to connect them to new knowledge and technologies. It is, however, unclear whether that knowledge is effectively shared by different programs within the agency.” [30].

The problem is that the bureaucratic morass of interagency cooperation and lingering, Vietnam-inspired mistrust of ‘academics’ must first be overcome to capitalize on these sources. We must remain focused on the truth, that “Our fight against international terrorism will require their attention and ideas if it is to succeed.” [31]

### **Conclusions -- Defeating the Hydra**

The advent of 4th generational warfare, of which Al-Qaeda provides the most recognizable example, demands a new approach to defining and fighting our enemy. [32] It assumes that we will afford our commanders the opportunity to fight with all the means at their disposal. Next, that our leaders will recognize that this enemy applies tactical action for strategic gain, not operational design. It presupposes that our wartime ethics will remain morally inscrutable (Americans will, after all, fight American), but that we are willing to deal with terrorists, summarily, violently, and on occasion, unilaterally. Finally, it assumes that today’s military can think ‘outside’ the conventional ‘box’

recognizing that, while technological superiority is an invaluable advantage, ultimately, our ability to win in combat will rest in the minds and moral courage of combat leaders.

When the strategic-operational-tactical centers of gravity are compressed and inseparable, the operational level fails to exist or be relevant. In this case, the factors of culture, psychology, and information provide us with new means to mitigate the unconventional and a useful methodology for dissecting their more elusive center of gravity -- an inherent challenge of 4th generation war.

### **Recommendation**

To effectively use these intangible factors and knowledge, we must have the courage to develop and initiate innovative tactics, organizations, and doctrine, applying all assets of our force in new and unconventional ways. Our nation must evolve to an unfamiliar strategy of 'sudden unpredictability,' challenging traditional use of the military and demanding ways and means to overcome the parochial morass of national interagency and institutional cooperation.

We are on the cusp of a generational change in war, of which Al-Qaeda is only the vanguard. This paper provides CentCom a catalyst for inculcating our forces with new, preferred means to assess the 4th generational enemy. By enhancing our ability to anticipate, adapt, and learn the enemy, and the nature of his war, by expanding our knowledge of the nuances of his culture, psychology, and information now, we provide our nation the best opportunity to win tomorrow.

## Appendix A War by Generation

Following the Peace of Westphalia in 1648, wars became the domain of the nation-state and armies developed accordingly. At first, weapons' sophistication dictated that successful armies would rely upon massing of the army on field. Short ranges and even slower rates of fire demanded tactics and techniques to concentrate and maximize the firepower available while ensuring support would be orderly and predictable. Often, no more than three volleys might reasonably be expected as forces closed in open battle, many ultimately decided by sword and bayonet. Professional armies, (themselves a product of nation-state government) developed methods of movement, wheels, and engagement tactics - what every military member knows today as close order drill. To Americans, the epitome of *first generation war* is cemented in our historical perceptions of the 'Redcoats' of our own Revolutionary war.

By the mid-nineteenth century, the industrial revolution had changed all of society and, as might be expected, had matured its implements and means of warfare. Now more easily produced and economically affordable, improved weaponry propelled war to evolve to a *second generation*. Small arms had tripled their ranges with rifled bores and increased their rates of fire by more efficient loading and repeating mechanisms. Artillery had evolved in both range and lethality; exploding shells (the dreaded Civil War 'canister' rounds) made engagements from defilade and distance possible and deadly effective. Steamships and trains had increased strategic reach, battlefields expanded, and Napoleonic/Prussian-style mobilization ensured mass armies would meet in conflict over terrain -- the image and concept of 'classic' war.

Armies turned to 'science,' relying upon mathematical probabilities and algebraic formulae for force ratios and presumed power differentials as the means to victory. Generals religiously sought more firepower to pummel their adversaries into submission. Failure, assuredly, was not possible provided the enemy was outgunned and outmanned. Maneuver was minimal, massive loss accepted, provided even trivial geographic gain had been achieved. Command was centralized to ensure desired massing and concentration the place of choice. Large staffs evolved, now required to produce complex plans coordinating artillery and infantry advances. Each defeat was scrupulously analyzed, resulting in even more complex, new formulations and better synchronization tables; each presupposing that material superiority, technology, and personnel numbers were still the true keys to victory.

For the industrialized nations, in particular the US, these second-generation tactics held a special allure. With its unmatched resources, geographic isolational advantage, and burgeoning defense industrial base, the US was able to repeatedly leverage its technological advantage into decision and victory. The 'total war' of the '40's validates our dominance and ingrains this 2d generation of war as 'America's own.'

Countries not so resource blessed, however, were evolving. Those nations whose economic, industrial, or diplomatic power was restricted, or whose geographical position was exposed (like Germany post-Versailles), channeled their efforts away from expensive technology. Instead, they placed their limited assets and emphasis on a professional officer and NCO corps to neutralize the advantage of the physical means of war by confusion, speed, maneuver, and initiative. Command and control was decentralized, units worked based upon mission and commander's intent, and independent action in support of the whole was encouraged. It advocated that the primary criterion in war remained, *"...decisive action. Everyone, from the highest commander down to the youngest soldier, must*

*constantly be aware that inaction and neglect incriminate him more severely than any error in the choice of means* (emphasis in original).[1] They were evolving into war's *third generation*.

Third-generation tactics showed great promise early in World War II as Germany wins impressive early victories. But tactics alone proved less decisive; the industrial age material superiority that dominated the second-generation retained its importance in the prolonged battles of attrition in Europe and amphibious operations of the Pacific. In a war where the enemy was identifiable and chose to fight, industrial might would, seemingly, remain the major determinant to success. Logically, with its overwhelming success in defeating Nazi Germany, the US remained hesitant to commit to change. Subsequent actions in Korea and Vietnam, and its resultant stalemate and defeat, finally led America to question and reexamine its reliance on technology and second generation warfare - but its movement to 3d generation was markedly slow and only marginally accepted by her military services through the '80s.

Despite the grand 'maneuver' of Desert Storm, the US remained convinced that technology and attrition, validated by the video-game wizardry of its air war, was again the predominant means to victory; arguably wavering continuously between semi-3d back to 2d generation warfare augmented by technologic means of attrition.

Our service transformations continue to follow this bend. Sadly, even the Army's proposed transformation, to date our most ambitious and opportunistic attempt to gain speed, mobility, and lethality, remains grounded in an absolute reliance on technology and the promise of future combat systems. The *Joint Vision's* overarching themes of *full spectrum dominance, informational*

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[1][1] Bruce Condell and David Zabinski, translation of On the German Art of War: Truppenfuhrung, Boulder: Lynne Rienner Publishers Inc., 2001) p.19.

*superiority, precision engagement, assured access*, all are supported by emerging or envisioned technologies. They perceive clarity that achieves few casualties, makes enemy actions predictable, and where our only mission is merely to service the targets generated from infallible or near-infallible informational systems: a return to Jominian war of algebraic formula and mathematical probabilities, vice accepting the 3d generation premise to cause and thrive within chaos. Lacking innovative methodologies for employment and deployment, and floundering in its utopian search for absolute certainty, it remains only in the shadow of a true revolution in generational war -- while war, as we know it, has notably continued to change.

Ironically, it was our overwhelming success in southwest Asia, in conventional war against massed armies in large formations, that accelerated others towards the next generational change in warfare. As America again demonstrated its unmatched superiority in technology, massed manpower, global reach, and firepower, future adversaries recognized the futility of conventional engagement and turned to explore new methods to contain the world's lone 'hypermilitary.' They found their answer rooted in guerrilla war, partisan operations, and even the lessons of our own Francis Marion, William Rogers, Nathan Bedford Forrest, or 'Red Mike' Edson, adapting the old in new ways - the *fourth generation* of war.

### **Fourth Generation War**

In the mid-90's, prophetic writers like William Lind, G.I. Wilson, and Thomas Hammes cautioned our military on the emergence of a new type of warfare having its foundations not solely in emerging technology, but in exploiting the dramatic changes in the world's political, social, and economic

relations.[2] With the end of the Cold War, many nations, fractured along ethnic and religious divides, found loyalties to traditional states becoming less important than one's faith, clan, or tribe -- the emergence of sub-national groups. While the outward mechanisms and political appearance of statehood remained, its influence has been degraded and altered as international organizations, both governmental and non-governmental, become increasingly influential and determinant in international and internal affairs. Transnational actors such as drug cartels and terrorist groups, spurred by religious fundamentalism, growing economic inequities, and cultural intrusions, have presented nations with a new adversary that transcends national boundaries and disdains ethical or moral convention. Aided by the diffusion of informational technologies, economic globalism, and an expanding trend toward religious and ethnic internationalism, a new, dangerous warrior caste is developing -- one that refuses to play the game by the rules.

It is an army of 'have-nots' that leverage their paucity of equipment and technology by brutality and violence. They paralyze technologic target and intelligence acquisition by reverting to formless armies; frustrating the professional soldier by giving them nothing to 'hit.' Communist guerrillas, mujihadeen, and insurgents in Eritrea, Namibia, and Somalia, have exploited their opponents' technocentrism by denying them targets to address. Without these targets and identifiable enemy, industrially-based armies forfeit the initiative and become merely reactive; their very size and technology becoming a vulnerability instead of an advantage. Our recent consternation over the lack of available terrorist targets proves that Bin Laden fully understands these lessons.

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[2][2]See Thomas X. Hammes, *The Evolution of Warfare: the Fourth Generation*, Marine Corps Gazette, (September 1994), and William S. Lind, et al *The Changing Face of War: Into the Fourth Generation*, Marine Corps Gazette, (October 1989).

What are the other characteristics of this 4th Generation? Strategically, it exploits the media and the informational technologies to sell its message and perpetuate its cause. Unlike 'freedom fighters' of the past, it does not brag; rather, silence is used to paralyze its enemy's retaliatory decisions. It binds together the technologies of today with the tactics and theories of the past, moving freely among the new and the old -- it is controlled chaos. It is amorphous; many headed, but coordinated. It is complex; intersecting the realms of crime, terrorism, and war. Worldwide and determined, its warriors are young and dedicated, bound together by a common thread of ideology, culture, religion, or quest for worldly or eternal riches. It is low-tech, seeking "cheap kills" that consider all aspects of national power -- including its citizenry -- as viable targets. It refuses to stand and fight, choosing the time, place, and means of attack, unshackled by conscience and principles that traditionally govern war -- morally wrong, but brutally effective. It seeks decision but not decisive battle -- it refuses to play by our 'civilized' rules.

## Appendix B Al-Qaeda and Center of Gravity

While beyond the scope of this paper, to understand 4th generational war, we must analyze the strategic context in which these organization functions. To do so correctly demands we go beyond simple demographics. In the case of Al-Qaeda, we must examine and consider the Koran -- the singularly most important guide for understanding this region *culturally* and *psychologically*. Informationally, it is provides the nexus that differentiates between Islamic fundamentalism and mainstream Islamic beliefs and practices.

The Koran, beautifully constructed, appeals to reason and possesses a tradition of humanism and receptivity to other cultures that marks it among the great religions of the world. Extremism, conversely, with its penchant for defiance, resentment, and abhorrent violence, is rooted in a bastardized interpretation of selected passages. It seeks to couple these contextual aberrations with history of the Muslim decline from world prominence, the result of oft-repeated unhappy encounters with the West.<sup>3</sup>

Western (read: American) popular culture has saturated the region, fanning resentment as expectations rose and cultural identities were challenged. While oil revenues presumed economic growth, Islam is centered among the least developed regions in the world. It continues to wrestle with uncontrollable birthrates, lopsided distributions of wealth, resources and growing migration. It's population, progressively younger, repeatedly uprooted by war and turmoil remain deprived of privileges that they see on television but cannot have. It is a future that promises only continued rampant unemployment, widespread official corruption, and inefficient and uncaring bureaucracies. Even the

middle class, of which men like September 11th terrorist Mohammed Atta arose, grow increasingly impatient with the lack of democratic reform and the uneven leadership of faux-democratic regimes and dwindling resources. In this ‘environment of despair’ groups like Al-Qaeda thrive, promising empowerment and recalling past glory.

Like any successful organization, military or civilian, Al-Qaeda has clearly established goals and objectives. Its’ members believe themselves to be defenders of the “nation” or “kingdom” of Islam, a kingdom at war with the United States.<sup>4</sup> The fundamental causes of their hatred centered around grievances regarding the presence of US troops on sacred soil, the morally ambiguous economic expansionism of the West, and the inevitability of clashes between disparate religions, cultures, and ways of life -- the sins of globalism. With this as its start point, Al-Qaeda has rallied its adherents by artfully integrating Islamic history and symbology by merging confrontation of Zionism as incumbent to the expulsion of infidels.

Al Qaeda promises equality, a departure from apostate, secular oppression, and governance by *Sharia* -- the law based on a literal reading of the Koran -- victory ensured by God himself. The dream downplays the disparity in physical power and justifies the irrationality of its means and methods by the righteousness of its purpose. Thus, Al-Qaeda’s attacks, representative of American economic and military might, were presented as apocryphal; likened to the Prophet’s attacks on enemy caravan’s that brought victory to Islam in the past, an intentional admixture of the messianic and the pragmatic.

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[3]<sup>3</sup>Since the end of World War II, the area extending from Egypt in the west to Afghanistan in the northwest and Yemen in the south has suffered ten major wars -- many funded, conducted or caused by the Western powers.

[4]<sup>4</sup>Carr, Caleb, The Lessons of Terror, (New York, NY: Random House, 2002), p. 228

To hold its adherents psychological commitment, it must remain defiant. Each time the US punished bin Laden by bombing or firing missiles into his camps, his emergence unscathed only enhanced his organizations reputation for invincibility. If they cannot achieve their strategic goal by confronting the US by military force, they are justified by God to resort to one of the oldest of strategic means for the weak against the strong -- terrorism. Terrorism is, as Caleb Carr has so succinctly defined it, "...simply the contemporary name given to, and the modern permutation of, warfare deliberately waged, against civilians with the purpose of *destroying their will* to support either leaders or policies that the agents of such violence find objectionable. (emphasis added)"<sup>5</sup>

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[5]<sup>5</sup>Carr, p. 2.

**Appendix C**  
**A Template for the Analysis of Culture**

**SUPERSTRUCTURE**

RELIGION  
IDEOLOGIES                      PHILOSOPHIES  
TRADITIONS                      MYTHS  
RITUALS                              SYMBOLS  
TABOOS                              AESTHETICS  
ART                                      LITERATURE  
SPORTS/GAMES/HOBBIES

**STRUCTURE**

Association Hierarchies

Group Identification  
The Individual's role in Society  
Homogeneity of the culture  
Inherent Conflict/Cohesion

Domestic Factors

Component Structure  
Component Division of Labor  
Roles  
Socialization  
Education

Political Factors

Political Organization  
Societal Division of  
Labor  
Tax/Tribute System  
Political Education  
Class/Caste System  
Police/Military Role

**INFRASTRUCTURE**

Production

\_\_\_\_\_ Agriculture  
Industry  
Natural Resources  
Services  
Trade  
Volunteerism

Reproduction

\_\_\_\_\_ Native Born  
Immigration  
Recruitment  
Conscription

To assess the cultural environment of the 4th generation enemy demands analysis beyond the traditional intelligence preparation of the battlespace. In this template, Major Jim Trahan, USMC categorized culture in three tiers or structures as provided below.<sup>6</sup> To assess culture, it cannot be viewed in isolation. For instance, we cannot label Al-Qaeda simply ‘Islamic,’ as extremism is derived from supporting structures different from the average believer. By breaking the culture apart at each level, we begin to identify psychological vulnerabilities that will permit exploitation across the elements of national power (military, diplomatic, economic, and informational)

**Superstructure factors** constitute the over arching non-secular factors that must be considered. These are the products that drive, encompass, and incorporate the subordinate structures. Often these are the factors that are traditionally considered in cultural analysis. But the methodology must be discriminated to see how variances in the non-secular occur (e.g., difference in the Sunni and Shiite sects of Islam). This will find it’s roots in the subordinate structures.

**Structural factors** reveal the secular factors for consideration. We must be very careful not to attempt to ‘mirror-image’ or apply our Judeo-Christian mores and values to the structural factors and associations.

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<sup>1</sup> I am indebted to classmate, now-LtCol Jim Trahan, for his enlightenment and for allowing the inclusion of this template from his unpublished paper, “*Cultural Intelligence Preparation of the Battlefield and Methodology of Cultural Analysis*,” prepared for the School of Advanced Warfighting, Quantico. Va. in 1996.

**Infrastructure** addresses two critical underpinning upon which the culture is built. First, how does it get it's means to support the society (Production), and second, its ability to recruit and replenish membership in the culture and society (Reproduction).

All the structures are inextricably related. Elements of one level will continually drive or serve as a catalyst for changes and adjustments in other structures, such as dwindling natural resources are altering the migratory patterns in the Middle East have affected the means of reproduction, homogeneity, conflict, hierarchies, and even religious practices and fundamental adherence in a given region or among a people.

Major Trahan provided a workable strawman that can be applied across the spectrum of conflict and is a applicable in conventional as well as unconventional strategic, operational and tactical analysis. Of note, he is currently refining this template and proposing its inclusion as a critical element of the Commander's Joint Intelligence Preparation of the battlefield -- an element long neglected.

## BIBLIOGRAPHY

- Adams, James, The Next World War, (New York, NY: Simon and Schuster, 1998)
- Alexander, Bevin, The Future of Warfare, (New York, NY: W.W. Norton, 1995)
- Bell, J. Bowyer, Dragonwars: Armed Struggle & the Conventions of Modern War, (New Brunswick, NJ:Transaction Publishers, 1999)
- Carr, Caleb, The Lessons of Terror, (New York, NY: Random House, 2002)
- Clausewitz, Karl von, On War, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984)
- Condell, Bruce and Zabinski, David, translation of On the German Art of War, Truppenfuhrung, (Boulder, CO: Lynne Rienner Publishers, 2001)
- Grossman, Elaine M., "Is the US Military Ready To Take On A Non-Conventional Terror Threat?" Inside the Pentagon, October 18, 2001
- Hammes, Thomas X., *The Evolution of Warfare: the Fourth Generation*, Marine Corps Gazette, (September 1994)
- Hart, B.H. Lidell, Strategy, (New York, NY: Praeger, 1968)
- Hashim, Ahmed S., *The World according to Osama Bin Laden*, Proceedings, (Autumn, 2001)
- Hill, Charles, essay, "A Herculean Task: the Myth and Reality of Arab Terrorism," in The Age of Terror, edited by Strobe Talbott and Nayan Chanda, (New York, NY: Basic Books, 2001)
- Joint Pub 3-0, Doctrine for Joint Operations, (Washington, DC: CJCS, 10 Sep 2001)
- Lind, William S., et al *The Changing Face of War: Into the Fourth Generation*, Marine Corps Gazette, (October 1989)
- Marine Corps Doctrinal Publication 1-1, Strategy, (Washington, DC: HQMC, 12 Nov 1997)
- Marine Corps Doctrinal Publication 1-2, Campaigning, (Washington, DC: HQMC, 1 Aug 1997)
- Metz, Steven, Armed Conflict in the 21st Century: The Information Revolution and Post Modern Warfare, (Carlisle, PA: Strategic Studies Institute, 2000)

Peters, Ralph, Fighting for the Future: Will America Triumph?, (Mechanicsburg, PA: Stackpole Books, 1999)

Pillar, Paul R., Terrorism and US Foreign Policy, (Washington, DC: Brookings Institution, 2001)

Rashid, Ahmed, Taliban: Militant Islam, Oil, & Fundamentalism in Central Asia, (New Haven, CT: Yale University Press, 2000)

Saunders, Clayton D., Al Qaeda: An Example of Network-Centric Operations, unpublished Operational Research paper submitted to the Naval War College (Newport, RI, 2002)

Singer, Maxine, "The Challenge to Science: How to Mobilize American Ingenuity," in The Age of Terror, edited by Strobe Talbott and Nayan Chanda, (New York, NY: Basic Books, 2001)

Strange, Dr. Joe, *Centers of Gravity & Critical Vulnerabilities: Building on the Clausewitzian Foundation So That We Can All Speak the Same Language*, Marine Corps University Perspectives on Warfighting, Number 4, (Quantico, VA: Defense Automated Printing, 1996)

Trahan, Major James, *CIPB and Methodology for Cultural Analysis*, unpublished manuscript submitted at the US Marine Corps School of Advanced Warfighting, (Quantico, VA, 1996)

Vandegrift, Donald, editor of Spirit, Blood and Treasure: The American Cost of Battle in the 21st Century, (Novato, CA: Presidio Press, 2001)

Vego, Milan N. Operational Warfare, (Newport, RI: 2000)

Webster, William, "Ex-CIA Chief Revitalizes 'Truth Serum' Debate," USA TODAY, 26 April 2002, p. 12A

## ENDNOTES

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- [1] Peters, Ralph, Fighting for the Future: Will America Triumph?, (Mechanicsburg, PA: Stackpole Books, 1999), pp. 32-47.
- [2] One of the mythical twelve labors of Hercules, the Hydra was a many-headed serpent or monster of Greek mythology whose severed heads were magically replaced by two others. An interesting analogy comparing the war on terrorism to the twelve labors of Hercules is offered by Charles Hill's essay, "A Herculean Task: the Myth and Reality of Arab Terrorism," in The Age of Terror, edited by Strobe Talbott and Nayan Chanda, (New York, NY: Basic Books, 2001), pp. 108-111. For this paper, when capitalized, it is analogous to the multifarious evil we face today that cannot be overcome by a single effort.
- [3] Joint Pub 3-0, Doctrine for Joint Operations, (Washington, DC: CJCS, 10 Sep 2001), p. GL-4
- [4] While this paper focuses on the al-Qaeda, it is illustrative of most transnational threat organizations with necessary minor modification for specific geographic, cultural, and psychological conditions.
- [5] See Thomas X. Hammes, The Evolution of Warfare: the Fourth Generation, Marine Corps Gazette, (September 1994), and William S. Lind, et al The Changing Face of War: Into the Fourth Generation, Marine Corps Gazette, (October 1989).
- [6] A history and explanation of 4th Generation War provided in Appendix A.
- [7] Marine Corps Doctrinal Publication 1-1, Strategy, (Washington, DC: HQMC, 12 Nov 1997), pp. 20-31
- [8] While no Joint definition discriminates the strategic, operational, or tactical center of gravity, accepted usage at the Naval War College suggests that operational center of gravity will *usually be* the most significant enemy military concentration. This is also the position noted in Marine Corps Doctrinal Publication 1-2, Campaigning, (Washington, DC: HQMC, 1 Aug 1997), p. 42. Even in Military Operations Other than War (MOOTW). The focus is on the tangibles, while tactical action effects strategy, military action focuses upon a geographic point or area of concentration of enemy activity.
- [9] But many scholars feel, as does the author that Clausewitz's statements were taken with too much literalness and too little analysis.
- [10] At the Naval War College, Milan N. Vego's Operational Warfare, (Newport, RI: 2000) is the preferred text for joint/operational warfare. It is a collection of articles and essays by Professor Vego and is considered the definitive text for senior students at this senior-level school. While intended to combine art and science (hence the title, Operational Warfare), it is mostly formulaic and geared to Soviet operational science; hard pressed to address the unconventional war proffered by our current adversary.
- [11] Of all the research done, the most fascinating overview of this growing phenomenon of evolving, transnational, unconventional armies was provided in the book by Bell, J. Bowyer, Dragonwars: Armed Struggle & the Conventions of Modern War, (New Brunswick, NJ: Transaction Publishers, 1999).
- [12] Grossman, Elaine M., "Is the US Military Ready To Take On A Non-Conventional Terror Threat?" Inside the Pentagon, October 18, 2001, p. 1

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[13]Nothing suggests that we should not address physical form when encountered. Bin-Laden and his educated associates are noteworthy for their infrastructure. Refining business models (of which he is most familiar) to generate and invest revenue, creating and possessing a disciplined cadre, incorporating other extremist groups, organizing and maintaining worldwide cells, he has organization and, like any other command and control entity, he must issue orders and guidance through a franchised network of communications and semiautonomous cells and leaders.

[14]For the purposes of this paper, traditional elements of national power include diplomatic, information, military and economic efforts.

[15]Introduction by Vandegrift, Donald, editor of Spirit, Blood and Treasure: The American Cost of Battle in the 21st Century, (Novato, CA: Presidio Press, 2001), pp. xxvi-xxviii.

[16]Historically, they would be following in the footsteps of Sherman, McArthur and others.

[17] Bell, p. 106

[18]Former CIA and FBI director, William Webster suggested that, “We ought to look at what options are out there.” (USA TODAY, 26 April 2002, p.12A). His recommendation of the use of Sodium Pentathol (truth serum) reflects the growing frustration of US security officials that are bound to carefully balance security with civil rights issues -- an issue that our enemy seems ill-concerned about. UN investigators in 1999 did propose that use of drugs would constitute torture because it is physical abuse aimed at extracting information. Most civil libertarians are admittedly more concerned about rule of law than force protection -- Webster believes there can be a balance.

[19]Clausewitz, Karl von, On War, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), p. 596

[20]Hart, B.H. Lidell, Strategy, (New York, NY: Praeger, 1968), pp.163-164

[21]Bell, p.31

[22]*ibid.*, p.79

[23]Historically, I can find only one precedence for this type of dramatic shift in strategic and tactical factors. T.E. Lawrence’s analysis during his escapades with the Arabs in WWI hinged on what he Lawrence called *bionomics*. This is a science that respects the relationship between the organism and its environment. Psychologically, he explored what Xenophon called the diathetic; not only did he have to influence the mindset of his army (the Arabs) but,, he had to influence the mind of his enemy and his allies. To Lawrence, “the contest was not physical, but moral...” See Osprey, Robert B., War in the Shadows: The Guerrilla in History, (New York, NY: Doubleday, 1975), pp. 257-271.

[24]Bell, p. 71

[25]Even Network Centric Warfare, the vanguard of the use of information is not offensive, instead it chooses to deny the enemy the capability to deny our access and interdict our integration of systems. While used to take offensive action, we focus on the internal, vice external advantage of centralized common operational pictures.

[26]It is encouraging to see that we are now beginning to leverage some of this informational supremacy to eradicate Al-Qaeda’s economic transfers -- but we need to do more in the satellite, media, and electronic realms to counter what is now an enemy strength.

[27]Adams, James, The Next World War, (New York, NY: Simon and Schuster, 1998), p.310

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[28]Worms are aggressive viruses that can be targeted to consume and destroy vital lines of code in a computer; Trojan Horses are the IW equivalent of espionage ‘sleeper’ agents, that are put in place within the computer software and are activated on-call.

[29]*ibid.*, p.200.

[30]Singer, Maxine, “The Challenge to Science: How to Mobilize American Ingenuity,” in The Age of Terror, edited by Strobe Talbott and Nayan Chanda, (New York, NY: Basic Books, 2001), pp. 195-205

[31]*ibid.*, pp. 200-201

[32] In discussion with colleagues, some contend that these factors are already expressed in counterinsurgency doctrine; that terrorism is but insurgents on a broader scale. Reviews of existing doctrine do stress the importance of these new operational factors -- but it treats them only relative to tactical operations that seek to integrate the population with a reliable popular government (culture) and to isolate the counterinsurgent -- similar to this destroying his dream (psychological). But, counterinsurgency manuals remain anchored in the conventional military force model -- an enemy that masses, looks, and fights like an ‘army,’ against government (nation-state) forces. Terrorism is treated only as an adjunct tactic, not as the primary strategic means. Certainly none address the scope of 4th generation war. I would suggest that this proposal takes the tactical and expands it to the operational. Al Qaeda is not an insurgent; its army more amorphous, the arena more dispersed (the enemy does not concentrate), and its limitations of sovereignty different. More alarming, despite the existence of this doctrine, As Martin Van Creveld, in Transformation of War, (New York, NY: Free Press, 1991) p. 22, poignantly reminds us, none of the world’s premier fighting forces “(n)otwithstanding this ruthlessness and these military advantages, the ‘counterinsurgency’ forces have *failed* in every case (since 1945).” This amplifies the need to refine and reconsider these factors in new ways, in a ‘4th generation’ mindset; one not tied to massed forces and unit movements. Recent experience suggests that current counterinsurgency doctrine is not understood, unclearly defined, and rejected by planners. It is similar, yes; broader, undoubtedly; but it not accepted, practiced, or successful, as it is currently taught in our conventionally-oriented military schools.