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American Warfare in the Twenty-First Century

Paul R. Camacho

Over the last several years there have been a number of calls for the development of a new theoretical doctrine to govern the force structure of the United States military. The last big change in doctrine occurred in the post-Vietnam era. It involved not simply the change to the all-volunteer force, but an abandonment of escalation brinkmanship and open-ended missions. The subsequent Powell Doctrine demanded the use of overwhelming force and clear objectives and boundaries for military intervention. As the new millennium approached, the deficiencies of the Powell Doctrine became apparent — the multilateral approach of coalition building and the logistic assembly of forces and equipment was too cumbersome to respond to the new threats from non-state entities. This led to the development of the concept of Force Transformation as embraced by Secretary of Defense Donald Rumsfeld. Yet the modernization plans envisioned by him are meeting significant resistance within the military because of September 11, Afghanistan, and Iraq — in short, such dramatic change is too risky given these immediate challenges and the entrenched interests of the military bureaucracy.

This paper outlines a number of changes in the overarching social conditions and the various technological advances in weapons development. Next, the paper discusses the resistance to change in the military that was demonstrated in the first Gulf War and the problem of the overextension of the Guards and Reserves. Finally, the paper examines a few scenarios of reorganization and three possible paths that the military can pursue.

Developing military doctrine and military language has been an evolving art since ancient times. New concepts, buzzwords, and acronyms, are always being invented, but the average shelf life for a term is just short of a year. Occasionally the terms last longer (particularly when they become popular in military sociological and/or military political science circles). The term “revolution in military affairs” (RMA) is one such term. It conjured up and came to imply an imminent change in the structure of U.S. military forces, particularly in the Army. A rumor of backstage conflict in the Pentagon between Secretary of Defense Donald Rumsfeld and high-ranking Army officials has been occasionally mentioned in newspapers and on television. This may have some connection with the demise of RMA in favor of the newest phrase, “America’s New Way of War,” signifying (a more incremental?) change in our military.

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Exactly what this new way of war entails has yet to be determined. Certainly one of the biggest problems is that the potential radical changes are being resisted as a result of the attacks of September 11 and the deployment in Iraq. Any change would be a move away from the Powell Doctrine that was established during the first Bush administration. Colin Powell then Chairman of the Joint Chiefs of Staff, was not alone among senior officers who were determined to avoid the quagmire of a myopically defined conflict. The Powell Doctrine advocated overwhelming force, coalition building, and a clear exit strategy — all to be developed well before troop commitments were made. This conceptualization, and in particular its focus on coalition building, found favor with the first President Bush despite its slow, almost ponderous nature. A second feature of the developing new doctrine was its freedom from the limitations and boundaries of the Cold War, one consequence of which has been an increase in the unpredictability and aggressiveness of second-world and third-world nations, many of which are exploring new-found freedom that came with the dissolution of fifty years of Cold War traditions and political alignments. Another has been the rise in Islamic fundamentalism across the Muslim world. One might argue that these two features were always operating, but they were hidden beneath the sea of superpower alignments. Another feature impacting our military is the incredible growth of electronic technology applications. Sectors of the military such as command and control, logistics, and procurement are finding it challenging to take advantage of the technologies in a manner that supports managerial control. Thus, in barely a decade our military has reached a crossroads and finds it must adjust to the post-industrial world so as to meet the demands of the civilian control structure in order to secure the new world order, particularly when these demands require speed and maneuverability.

Social Conditions as an Impetus for Change

The changing nature of socio-structural conditions within and between states and between nation-states and multinational corporations is providing the impetus for change in military doctrine and the application of that doctrine. The world landscape has changed with the collapse of the Soviet Union and the end of Cold War alliances. The consequence has been labeled a global power vacuum. Perhaps it is better to say that these events created a number of vacuums in institutional arrangements across the political, social, and economic landscapes of the world and drastically changed institutional arrangements within, between, and among nation-states. These changes are of such magnitude that even the United States cannot adequately fill the various voids with the needed treasure or commitment. And yet the United States does not want anyone else to fill these voids, not even the United Nations.4

Globalization and Controlling Oil and the Global Economy

The rise of the global economy as is commonly conceptualized in America today began with the passage of the original General Agreement on Tariffs and Trade Act in 1947, but is more commonly associated with the latest of the adopted sessions or “rounds” in 1986–94. In author Frank Herbert’s Dune it is the quest to control the “spice” that drives the economic, political, and military action of the empire. The spice enabled those who controlled it to control the world around them — it folded time, it powered the empire, and so on. Here on Earth, that spice is called oil, the strategic commodity that will govern the direction of world development over the next hundred years and those who control the oil will control the future.
development of the world. It is crucial for Europe and America, for the security of oil stocks is of paramount interest to those nations and major corporations. Oil is a strategic factor to the power elite and current U.S. policies reflect this concern.

Proven Oil Reserves
1018.7 Billion Barrels

World development as a matter of theory and practice remains stubbornly bifurcated along a North-South divide. From the north looking south, the theoretical perspective is that of modernization theory with its advocacy sponsorship anchored in the policies and programs of the International Monetary Fund (IMF), the World Bank (WB), and the World Trade Organization (WTO). From the south, the viewpoint remains primarily anchored in dependency theory, critical and suspicious of the international corporations and their IMF, WB, and WTO institutions. Global trade is equated with global corporate domination and the export of far more value than is invested. It is asymmetrical warfare on the corporate front. Despite the inventive protests of a tiny internationally networked minority, corporate domination is all but impossible to defend against. Without politics by some other means, the overwhelming victory of the global corporations is all but announced. If there is any schism, it is internal to the corporations of the developed nations and their respective market share of the development and extraction of third-world resources. The recent and temporary balk of France, Russia, and China over the United States proposed UN resolution concerning Iraq cannot but be seen as tied to the development of oil reserves.

Continuum of Conflict
The American way of war is destined to rapidly change in the next decade. To a significant degree this change is the consequence of (1) advances in basic science that have been harnessed to technological innovation in connection with the develop-
ment of new weapons systems, (2) the growth of limited warfare (asymmetrical) conflicts that are increasingly more probable given the hegemony of American military power, and (3) the rise of non-state actors representing, or at least claiming to represent, aggrieved populations.

The focus of the past has been on the Pentagon’s ability to fight two and one half major wars simultaneously. The nature of the war being prepared for has traditionally been conventional war. This seems to have been the case despite the fact that until recently many of the conflicts for which a military response has been deemed necessary have been very limited engagements that have fallen far short of anything close to even a half war. Many writers have discussed the types of conflict in modern U.S. military thinking. One of these would certainly have to be Admiral Henry Eccles. His typology ranged from blockade to nuclear war and was accompanied by a notion of a sliding scale of conflict intensity. More recent authors such as Robert Haass and Richard Connaughton discuss particular types of interventions such as peacekeeping, nation building, reprisal, and so on. Each of these endeavors has its own special conceptualization of the problem and recommendations for the type and limits of the required mission. One can fairly easily envision that each requires a different force structure and style of response.

The Growing Influence of NGOs

During the April 2002 Army War College 13th Annual Strategy Conference in Carlisle, Pennsylvania, a number of predominantly negative comments were made about the growing phenomenon of non-governmental organizations (NGOs) involved in international conflict.

There are many varieties of NGO. Some are involved with poverty/famine relief work or healthcare while others are concerned with development, and some proselytize religion. It is the significant degree of independence of the NGOs in failed states/war-zones that is particularly troublesome for the combatants on all sides. Since they are not under the authoritative military control of any side, their true nature is suspect. On the other hand, because they are non-military, it is less dangerous for civilians in a war zone to interact with them. It is the NGO’s ability to interact more easily with virtually all players that has created a kind of service delivery market niche; thus agencies of governments often contract with NGOs to establish and conduct aid programs. As independent entities they are becoming increasingly important in policy-making within and among nations and at the global level through the UN.

At present the Bush administration is piqued by what it perceives to be the failure of the NGOs to sufficiently advocate for or extol the virtues of American democracy and supply-side economics, and the U.S. Agency for International Development is attempting to exert more control over its contractors. Accordingly, it is requiring that “its” NGOs refrain from speaking with media people or pushing for policy initiatives connected to AIDS or fair trade, and so on. Exactly why the administration is so adamant about this is puzzling since the contradictions are overwhelmingly obvious to many third-world people. The only logical hypothesis is that all of this is part of an ideological domestic equation here in the United States.

Outsourcing: The Privatization of the Military?

Military contractors and suppliers have been around almost as long as large-scale military organizations themselves. Yet, while there are a number of global-sized corporations involved in the military contractor business, it is during the last few
decades that some of these contractors have noticeably crossed over into the area of military operations. One of the most established of these private military companies or contractors (PMCs) is Kellogg Brown and Root, which, when it was Brown, Root & Johnson, became the largest contractor in Vietnam and is currently a part of the Halliburton firm. According to a recent *Business Week* article, military contractors are responsible for between 20 percent and 30 percent of military support services. Yet there is a growing uneasiness about relying so heavily on a PMC, since military fighting capabilities might be virtually crippled if contractors balked at providing assistance in combat situations. The dependency of the military on such contractors was underscored by the attack in Riyadh, Saudi Arabia, in May 2003. Vinnell Corporation personnel were the specific targets in that bombing because of their contract to train the Saudi Arabian National Guard.

There are two broad and overarching concerns here. One involves the question of loyalty: What control does the client state have over the performance and actions of the PMCs under contract, particularly when failure to perform could result in a serious international incident if not possibly a battlefield defeat? A second concern involves the degree to which these PMCs can develop to the point where they could challenge legitimate third-world governments, or be willing to negotiate and even exploit their corporate networks to initiate conflicts that further a corporate agenda. Does the well-financed corporate image really differentiate them from mercenaries?

**Space Corps**

Space will be very important in the not so distant future. We are already familiar with satellites as essential for communication, identification, and targeting. Satellites and thus space are important for viewing the total battlefield, for extending the theater commander’s vision beyond the current event horizon. In space as on the ground, bureaucratic career stakes are operating to advance or hinder organizational change. The fact of stakeholders is an important issue in the military as well as in the large corporation. New systems tend to get “stove piped” into existing structures. This leads to organizational labyrinths and calls for reorganization, streamlining, and so on. But inertia is the rule for individual stakeholders as well as the organizational culture. Thus while incremental change and new weapon systems are supported, resistance hardens when nurtured programs develop a rationale that challenges the current culture.

In a recent paper submitted to *Armed Forces and Society*, the author noted a number of bureaucratic difficulties faced by those trying to transition to a “Space and Air Force.” It concerned the rhetoric of long-range policy articulated by the Air Force leadership in 1996–97 to emphasize the critical role of space in the first Gulf War and all future wars. But moving beyond rhetoric is much more of a fight “on the ground” within the military bureaucracy. On one hand, high-ranking Air Force generals do not want to see space separated from the province of the Air Force command, but they refuse to give it the central role it deserves.

One of the important aspects for the success of change is the presence of influential sponsors. Without bureaucratic sponsorship, potential programs often never get an opportunity to develop, or to develop free from interference from those sponsoring other programs or by agencies that view the new programs as challenges for funding. Simply put, the idea of a space force transition in terms of structure, missions, capabilities, and applications has been too much of a paradigm shift for the Air Force bureaucracy and culture — another vector for career paths, budgets, policy, and programs, that by their very nature will eventually tend to grow out of
their purview. Thus, the bureaucracy with a stake in the status quo resists change by thwarting any development of supporting doctrine beyond the air power theory; space technology is seen as a resource to be integrated into the current organization, not a force for some new doctrine that provides space technology a more powerful location in air power theory. The contradiction of support and resistance within the same organization is an element of the bureaucratic condition.

The militarization of space is another area of concern. The “star-wars” debates of the 1980s and the 1990s raised concerns that are still viable. Early warning, surveillance, navigation, and communications satellites are obviously a standard feature of America’s technological arsenal but, as the Center for Defense Information reported in the mid 1970s, the concept of “killer satellites” was also on the drawing board for both the United States and the Soviets.24 How much this specific technology has advanced since the end of the Cold War is unknown. The basic research and development and prototype development costs of such technology are no doubt prohibitive for virtually all nations outside the first world. With potential competition muted, certainly for the foreseeable future, the United States has possibly lowered the position of space-related projects on the defense agenda.

Non-Lethal Weapons
One of the most recent developments revolves around the concept, development, and production of what has been euphemistically referred to as non-lethal weapons. Non-lethal weapons are those weapons, which, when deployed, account for a mortality rate of less than 25 percent among those impacted.25 The range and scope of these weapons varies markedly. Some of the technologies are relatively familiar though they might qualify as weapons of mass destruction since they involve gas. One set of these agents is referred to as calmative agents. The Russian response against Chechen terrorists at a Moscow theater represents a disastrous misapplication of this type of technology. Others of the same ilk may assault other sensory organs. Infrasound technologies, for example, induce a physical imbalance leading to immediate, if not lethal, bodily illness (general physical orientation impairment, vomiting, and so on.), while other techniques being advanced produce similar effects by assaulting the individuals’ vision. These technologies, if developed and put into production, have significant potential domestic uses such as crowd or demonstration control.

Other technologies involve the use of polymers or caustic materials to disable major weapon systems in unique ways — by cutting off oxygen from combustion engines, by reducing the friction of moving parts and/or traction capability. The delivery mechanism for most of these items is the artillery shell or rocket. Finally, there are also a number of control agents at the storybook stage, which involve biotechnologies — bacteria or enzymes that eat, destroy, or otherwise modify fuel or change the intoxicant/euphoric properties of illegal drugs. One of the most accessible volumes on this matter is Morehouse’s.27

One sensitive question about the new non-lethal technologies is whether they will spill over to civilian use by agencies that come under the Department of Justice. Such technology might lead toward a degree of social control that has never existed before. Obviously, the implications that this intrusive technology may have for our society are immense.

Information War
Another military idea of the last decade is the notion of cyberwar or information
war, and the term cyberwar typically includes the concept of viruses destroying enemy computer systems. More advanced generations of software-probing weapons may be able to penetrate financial systems and create, modify, or destroy specific accounts. Security for and domination over the Internet in general is rapidly becoming a priority for defense institutions. The difficulty is that control over such technology does not make for an easy fit into the warrior mold. High-technology weaponry and advanced real-time intelligence communications are an immediate priority. These systems are for the most part new devices for the warriors to employ or communication technologies that are essential for the warrior on the modern battlefield. But the warrior is still thought of as one employing some type of destructive hardware that inflicts physical damage to a target. Certainly computer experts armed with the appropriate software and hardware would be inflicting damage and are going to become essential cyberwarriors of the future, but the image is less testosterone-filled than the military’s self-perception currently involves.

The term “information war” is becoming more common than “cyberwar.” It contains both the immediately aggressive application of power to enemy technology, that is, cyberwar, but also concerns the public relations and opinion development of any major corporate marketing campaign. The importance of a persuasive message is becoming more fundamental to the conduct of military operations. The development and presentation of this message is falling toward web-based information systems and sites. Marketing the message is becoming increasingly more important for military operations. Some researchers argue that public relations services manage the flow of information and are key institutions in contemporary militaries.

The Defense Departments website, http://www.DefendAmerica.mil, serves as an example of this. It is a carefully developed document presenting the administration’s position — a virtual newspaper dedicated to legitimizing and detailing the present course of action. The public relations approach to war has been recently discussed by a number of commentators. One film critic discussed the recent 2003 war in Iraq — and any future wars — as Hollywood productions, beautifully shot and marketed as “rock-the-casbah patriotism” and credits the effort to imitate Hollywood to the Reagan administration, the realization of the “power elite” described by Mills a half-century ago.

The principal point of the writers who discuss media spin and information is that the important war is the war to control domestic and international public opinion. In that world web pages are to become increasingly important. They advance particular geopolitical views in the highly contested territory in cyberspace. This cyberbattle space involves control over the communication opportunities, the development of cyberwar doctrine — a structure for strategies and tactics for cyberspace control, and the utilization of such websites by the Department of Defense (and by their counterparts in the various ministries of defense in Europe, and the like) — as a strategic Internet tool. What does it mean, and what is the significance of the fact that the Internet has made once sensitive military information more available? Is the information no longer sensitive? Is it less valuable, or does it mean that the military establishment and the Defense Department have to re-conceptualize their communication with the state and the public, as well as with other states and their publics? One set of metrics to measure websites may be ease of access, breadth of access, and quantity and quality of information.

The Weapons Cascade

Another factor forcing change in the conduct of warfare is growth in the dispersion
of weapons systems. U.S policy has publicly focused on weapons of mass destruction (WMD) and linked this concern with the growth of terrorism. The fear is that terrorist networks will gain access to these weapon systems and not hesitate to employ them. Glaringly absent from the public media is comment about the original corporate sources of production and dissemination of WMD technology. Critiques of the defense business have been a serious research subject since Dwight Eisenhower warned the American public about the military defense complex. Barnett wrote about the industrial power of the Pentagon and the defense/corporate industry in the 1970s.\textsuperscript{32} Gordon Adams has referred to this nexus of defense contracting as the “iron triangle.”\textsuperscript{33} More recently, Randall Forsberg has referred to the process of weapons diffusion as the cascade of weapons technology.\textsuperscript{34} Her study, which was particularly focused on the dissemination of high-technology fighter aircraft, points to the contradiction in policy among many western countries, particularly the United States: on one hand there is a declaration of public policy toward limiting the spread of weapons systems around the globe, while on the other hand the United States is the leading exporter of weapons systems.\textsuperscript{35}

Yet the production of and consequent cascade of weapons and weapons technology is not limited to high-technology fighter aircraft. First-world and second-world nation-states sell weapons to second-world and third-world nation-states, from there the weapons are easily disseminated to non-governmental organizations, networks of organized crime cartels such as the narco-mafia organizations, and religious entities such as Al Qaeda and Hamas.

Examination of the origins of Iraqi possession of weapons of mass destruction points back to the West and to “dual-use” technology. Certainly some of these systems and stocks of WMD material came directly from the West, and some portion of that directly from the United States during the time that Iraq with its leader Saddam Hussein was our major ally in the region before and after the war between Iran and Iraq.

Asymmetrical Warfare

Asymmetrical warfare refers to difference, and the use of this difference, to gain an advantage over the opposition. The notion of asymmetry becomes most apparent in the contrast of conflict between very dissimilar cultures with different levels of economic, social, and political structure. This phenomenon was used in one social science study as the basis for a “Good War — Bad War” typology construct.\textsuperscript{36} Today, this difference is referred to as asymmetry.

One of the most direct discussions concerning the development of asymmetry in warfare can be found in the work of Metz and Johnson.\textsuperscript{37} They have developed a conceptualization of several dimensions of temporality, internationality, state of risk, level of integration, style of organization, and several psychological dispositions.

They also support the notions of consequences initially identified by Leventman in that the more heterogeneous or asymmetrical the conflict, the greater the possibilities for incongruous responses to each other’s actions.\textsuperscript{38} Metz and Johnson point out further that if one of the contending societies is much more heterogeneous that the other, the asymmetrical strategy for the more homogenous society is to leverage the advantage that avails itself at the seams of the enemy’s social structure — to attack at the racial, ethnic, cultural weak points. They note that the United States is such a complex society; that the complexity creates seams in the social, political, or economic sectors that constitute targeting opportunities. Since our society is increasingly diverse and interconnected, there are seams to be exploited. The authors offer
a five-point conceptual response for our current military leaders to note in both offensive and defensive terms: organizational flexibility, focused intelligence, minimal vulnerability, full dimensional precision, and integrated homeland security.

In summary, positive asymmetry refers to the advantages one has over the enemy while negative asymmetry refers to one’s weaknesses, the advantages the enemy has over you. Terrorism can be thought of as asymmetrical warfare, and, in fact, has been listed along with information warfare and weapons of mass destruction as forms of asymmetrical warfare since 1995. The most glaring form of positive asymmetry is the technical resource advantage of the United States over everyone else. The most current glaring form of negative asymmetry is the tactical response of the Palestinians to Israeli occupation in the West Bank — suicide bombings.

### Bureaucratic Conflict: Change and Resistance to Change

One of the most common themes in bureaucratic studies is the notion of conflict and it can be a result of internal or external forces or a combination. Change and resistance to change have been a theme in virtually all studies of the military bureaucracy. Ackley focused on the tendency for structure, size, and procedural inertia in the face of forces of change.

As both the theoretical and practical case-level literature on social change makes abundantly clear, much of this change is manifested in the area of technology. In general, the rate and level of adaptation to change is higher in the area of products than in that of social organization or in areas of normative behavior. But changes in technology tend to be cumulative and eventually they are of a degree of magnitude that impacts the organizational or even social structure. Change in both information and weapons technology has reached a threshold where there is an impetus for organizational change. In military affairs jargon this has come to be referred to as RMA — revolution in military affairs.

### Gulf War I Internal Conflict in the Air Force

One of the most interesting accounts of bureaucratic infighting is in the work of Mandeles. This account of the official Gulf War Air Power Survey (GWAPS) was commissioned by the Air Force in August 1991 after the first Gulf War. It is quite focused on internal details, and thick with military acronyms. The account raises interesting questions about the capabilities of knowledge management in the military. Its overarching theme is the complexity of the relationships within and between organizations in connection with the management of complex weapon systems commitments and missions. The notion of a play with front- and backstage action is useful here. At frontstage is the discussion of organization and development of the command and control structure of three inter-related sectors of the air war: the air tasking order (ATO), the guidance, apportionment, and targeting procedures (GAT), and the bomb damage assessment analysis (BDA). The backstage action involved matters of careerism and bureaucratic competition among high-level commanders who operate just below the threshold of public media interest.

The backstage maneuvering constituted a “turf war” with organizations and their personnel jostling for position. The social conditions that engendered this were the inertia and ponderous nature of the Air Force bureaucracy. The internal argument of one set of players was that U.S. Air Force Central Command (CENTAF) could not develop an organizational plan quickly enough and that any delay in planning would
potentially engender political conflict among the coalition forces. These two issues created a rationale for those military commanders favoring Air Power Doctrine theory over Air-Land Battle Doctrine and led to the establishment of a secret planning group called “Black Hole.” On one side were those members of the traditional CENTAF planning groups who were comfortable with their established procedures, and on the other side there were those coalescing under the Black Hole group. The agents for change had the edge in élan and far fewer communication channel restrictions.

The point was that the Black Hole group insisted that reorganization was required not only to strengthen and standardize operations, but also to enable commanders in the theater to get operational control of their assigned assets that were held by commanders outside the Gulf Theater. Eventually the Black Hole group was incorporated under CENTAF, but the Air Power Doctrine people had won the day and essentially came to dominate developments inside the tactical air control center (TACC), and controlled the planning and development of the master attack plan (MAP).43

The student of the Mandeles text 44 comes to realize that he is studying a factor in the revolution in military affairs — the ever-burgeoning level of military technology has created very serious organizational challenges in terms of managing knowledge and technology with regard to the development and implementation of command and control structure. Three specific new problems are (1) wide-open communications, (2) dangerous technological imbalance within and among necessarily related organizational substructures, and (3) inadequate training exercises for the operations personnel in the “back room” are revealed in the authors’ discussion about the ATO, GAT and BDA. Serious inefficiencies in processing the massive volume of missions and issuing the appropriate air tasking orders (ATO), disseminating the accompanying GAT information (what kinds of ordnance to use for each particular target, and so forth), and compiling accurate post-mission damage assessments (BDA).

- First, the new technology had an incredible volume of open communications that any planning group could acquire from unofficial channels. This means that the command structure is increasingly porous and increasingly influenced by bureaucratic sectors outside of the immediate theater-level structure.45

- Second, the authors identified a seriously mismatched technology, particularly in bomb damage assessment: there was no LAN network in the BDA shop; they were using entirely incompatible operating systems and/or software programs. Data about BDA had to be translated to ASCII text and hand-loaded by floppy disk into the other machine.46 The huge volume of missions and sorties and the incredible volume of data (such as digitized satellite phone data, calls, handwritten reports, and the like) overwhelmed these shops.

- Third, this study revealed the need to refocus some training exercises for which the focus in the past had been on the delivery of the air package. The execution of the ATO, the design of the GAT, and the assessments about BDA had been taken as given in the training environment. It has been assumed that these three critical processes would always run smoothly. Yet in the Gulf, there was no standardization of input into the BDA. Information came from everywhere with little quality control.

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The first Gulf War illustrated how assumptions about the past can constitute a dangerous precedent, a kind of Catch 22 here. The U.S. military had more resources than it could manage but felt the need to reuse them because we were uncertain about the results of our first use of them. The more the resources were used, and the more that data was asked for about the efficiency of their use, the more the military analysts were overwhelmed, and the more errors cascaded down the procedural chain of command. Thus one can argue somewhat ironically that this need for rapid and fluid data “from everywhere” also carries with it a need for formal procedures to complement and contain it. To employ the computer programming metaphor, the focus of the past has been on “hierarchical” and “procedure-driven” organizational structure, when perhaps the military should be moving in the direction of a more “object-driven” organizational structure. What is really raised here is the question of knowledge management, and this has to be addressed throughout the Armed Services.

The Overextension of the Guards and Reserves
The turmoil of the Vietnam decade created an atmosphere where once again (as with the Civil War) the draft was the subject of great debate. It was the failure of Vietnam and the intertwining relationship of the draft with racial discrimination and “channeling,” as was the outcome of such 1960s draft efforts as Project 100,000 that directed 100,000 minorities per year to the infantry, that created the support to repeal the draft and move to an all-volunteer Army in 1973. The changing trends were, of course, of sociological interest to many military researchers such as Moskos and Segal, as well as to entities such as the Inter-University Seminar on Armed Forces and Society.

Prior to the voluntary Army, the Reserves were not used or given much attention by the Department of Defense (DoD). They were far down on the equipment and training list. It was the change to the volunteer Army in 1973 and a reworking of the Force Structure in the mid 1980s that dramatically changed the service commitment for the Reserve and National Guard, as the structure shifted from mass force to swift mobilization. This meant a smaller active duty component — one that would have to be relied on, or supplemented by, a Reserve/Guard component. Consequently, training and equipment for the Guard and Reserve was dramatically improved and they began to be more actively deployed.

The conflicts in the Balkans, Afghanistan, and Iraq have all required extensive call-ups. Currently, Reserves and particularly Guards are the “main force” in Bosnia and Kosovo. According to Senator Kay Bailey Hutchison (R-TX), 136,000 Reserve and Guard troops have been activated, representing a sizable proportion of the troops strength in U.S. military deployments worldwide, including Afghanistan and Iraq and this will be the case for the next several years. This extensive level of call-up has begun to take its toll on both public and private sector employers. In the public sector some 10–14 percent of police and fire forces in local governments across the country have been activated. This has led to staffing problems, which in turn has meant more overtime pay and the consequent budget dilemmas for these local entities.

At some point, this overextension of the Guards and Reservists will have to be addressed by those seeking to reorganize the nature of U.S. warfare. The American brand of Blitzkrieg works extremely well in terms of disabling traditional military organized resistance, but the follow-through has to be completely reorganized. The inability to contain unrest and restore law and order has undermined the
administration’s credibility. That is to say, if one believed the administration’s claims, or went along with them quiescently, assuming that the war would be short and contained, then that willingness and quasi-support ebbed quickly in the three months following the President’s declaration of victory. Defense Secretary Rumsfeld’s plans for reorganization, such as they were, are now in tatters. The Iraqi resistance illustrates that the danger of the small, quick, and mobile force structure is its lack of depth and breadth to carry out the broader nonwarfare functions. The United States simply does not have the numbers of troops available or trained to do the extensive and critical occupation work. Guards and Reservists have been extended to the point where enlistment and retention is in serious jeopardy — and it appears that there may be even more call-ups in the near future.\textsuperscript{51} The lightning-maneuver doctrine of the high-technology military that Rumsfeld wants has two linchpins: a strong, well-trained Reservist and Guard component with a “plug and play” — “off the shelf” — capability that can deploy virtually instantly and second, an occupational-nation-building capability that it currently does not have, nor can it engineer the use of proxy troops to do it for the United States. The point is that overextension of Guards and Reservists will eventually decimate those units when family and civilian career commitments demand priority. The consequence is that the doctrine of small and light, rapid and technologically sophisticated force deployed under a theoretical strategy of maneuver becomes too risky or useless to execute — because the follow-through to secure the peace/nation-building is nonexistent.\textsuperscript{52}

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Reorganization: Doctrinal Change and the New Way of War

Warfare and, more particularly, the theory of warfare have undergone many changes over the last few hundred years. The pace or tempo of war has increased with technological advance in general. In an anthology concerning future warfare, Major General Robert H. Scales argues that the nature and speed of warmaking has followed a reciprocal pattern of capability, one cycle favoring offensive war followed by another favoring defensive war — action and counter-action in styles of military dominance.\textsuperscript{53} Thus there is a kind of pendulum effect between a focus on firepower and attrition (generally defense) and on speed and maneuver (generally offense). The tactical advantage of firepower is found in its paralytic impact on the enemy; that of speed and maneuver is control of the battlefield so as to increase one’s opportunities and to limit those of the enemy. Yet, though firepower and maneuver are crucial for military operations in the field, they are not substitutes for understanding the nature of political, social, and economic changes that determine military action in the first place.

One of the interesting viewpoints about the end of the Cold War is that the world may be simultaneously both more secure and more dangerous than during it. Our society is more secure in that nuclear brinkmanship such as the Cuban missile crisis is not a readily plausible scenario, and more vulnerable to danger in that the once aligned nation-states on each side are much more unpredictable in their foreign policy activities than before. Indeed, we can argue that many of our allies have “jumped the reservation” of U.S.-determined foreign policy and are embarking on paths that could destabilize entire regions, engage in relations with anti-American non-state actors, and so forth. The recent actions of France and Germany at the UN in the months before the American invasion are a case in point. More recently, the
U.S. candidate for election to the Organization of American States Inter-American Commission on Human Rights in Latin America was rejected. This represents the first time in four decades that the U.S. has had no representation.54

The overarching theme in any discussion about the new American military and its way of war revolves around reorganization capable of adjusting and responding to the challenges at the opening of the new millennium. For many military theorists and practitioners this means organizational change in all branches of service. The service facing the greatest challenge is the Army because only the Army can guarantee definitive results in anything greater than island-seizing. Occupation of significant territory is beyond the capability, and is not even in the mandate of, any other branch of service. As we now see in Iraq, definitive results require controlling sizable territory for a significant length of time. Yet the current force structure in the Army is designed for a Cold War-style massive land confrontation that is no longer a likelihood of military conflict. Symmetrical warfare is history.

Macgregor makes an analogy between the Greeks and Romans in 200 BC.55 The Romans were able to overcome the previously invincible Macedonian phalanx by using smaller and more mobile Legions with principles of organization and strategies of confrontation that were adaptable. His point is that currently the United States Army is like the Macedonian phalanx and that it needs to become the flexible Legion if it is to successfully address the problems it will have to confront in the new styles of warfare in the new millennium. Obviously, any planning for reorganization must be linked to concepts or visions about the character of future war. The problem is that thinking gets blurred because there is a tendency to focus on weapons systems as the element of change — (1) because it’s obvious that the arms industry is constantly working on weapons systems and (2) because people become enamored with the technology of firepower. This is a potentially dangerous set of errors because weapon systems are not a substitute for innovative organizational structure, solid strategy, or even tactical planning.

He argues that the Army’s standard ten-division structure is too large, complex, and centralized, which results in a slow deployment and potential vulnerability from even guerrilla-grade WMD technology. For Macgregor, even the brigade organization suffers deficiencies in command and control. His remedy calls for the breakup of the Cold War division force structure into twenty-five to thirty “plug and play” combat groups under a unified joint command.56 All of this discussion and argument for reorganization butts against the prevailing social conditions of inertia in the military corporate structure. Again, not just individual careers, but career paths are at stake.

This is the problem Rumsfeld is currently facing. The situation in Iraq has imperiled his theoretical doctrine of maneuver warfare with rapid, mobile, technologically superior troops as the way of the future. It appears that guerrilla war will have another opportunity to exhaust the conventional forces and the patience of the civilian society at home. All this may serve as a serious caveat to those enamored by technology and lightning maneuver. This possibility also illuminates another requirement for the new way of war: the ability to deploy “troops” capable of winning the peace. Currently “winning the peace” is a slippery concept, but for this administration in the grip of numerous imperial-minded Republican political theorists, it apparently means reconstructing societies in the American image, or at the very least reorganizing entire societies until they are willing to pay cultural homage and accept the current lopsided agreements concerning free trade as espoused by the global corporations: no other arrangement seems acceptable to the
current administration. Yet, even advocating or accepting this as a national policy to pursue globally, the U.S. has no nation-building “divisions.” The natural entity for this is the UN, but U.S. policy is decidedly determined to be thoroughly independent of the UN. It is apparent from the remarks of President Bush that the current U.S. policy is to demand the UN subject itself to the designs of U.S. global policy — not the other way around. This is not likely to happen, or at least not happen without tremendous resentment and dubious commitment. This leaves us with the alternative of creating our own “nation-building force” that is, expanding the concept and size of civil affairs units, construction battalions, and the like, or contracting it out to ideologically loyal NGOs or profit-oriented corporate entities. It remains to be seen whether these alternatives can succeed, but they are the only alternatives to creating our own nation-building forces.

Conclusion: Paths to Change

The situation in Iraq has created a special opportunity for the United States military to engage in a serious re-examination of its most fundamental concepts and doctrines. The changing nature of the socio-political and economic nature of the world requires those who advocate American world hegemony to develop new warfare doctrines and grand strategies, which currently favor rapid deployment, joint-force participation, and a seamless structure and process of command and control capability. Yet there is great resistance to such change within the military, in part because stakeholders in power zealously guard the maintenance of the present structure and in part because the future seems to contain a fog thicker than the fog of war on the present-day battlefield. The difficulty to be surmounted here is that the battlefield can no longer be though of as a landscape of conflict, but rather as the profile of conflict that rests on a socio-political-economic landscape. The end of the Cold War has created a more independent third world, the global economy has begun to encounter more resistance from the third world, and the rise of non-state actors has developed as a response to American dominance. Much of this concept has been incorporated into the current political sound bite, that is, “we won the war, but are in danger of losing the peace.” — because “war” is slipping over into other arenas of social life.57

There are a number of reasons for this, both political and military. One of the political reasons involves the hubris of the current administration, which has handled its foreign policy very poorly and is locked into an extremely unilateral position engendered by a few imperial-minded think tanks. The military bureaucracy is locked into the possibility of losing the peace principally because it resists changing to incorporate the less-than-war-fighting functionalities it needs to do the nation-building job and cannot seamlessly transition command to those who could accomplish these functions, even if those resources were in place (which is definitely not the case). Significant analysis concerning the reconstruction of Iraq has been performed by entities such as the Strategic Studies Institute (SSI) and some parts of their four-stage formula seem to have been implemented, but this author doubts that it will be completed. There will be too much political resistance from sectors of the administration and the military to actually gradually relinquish control and/or to insist on micromanaging affairs after they ostensibly do relinquish control.58 All those willing to provide assistance will be alienated and isolated if they balk at the predefined administration storyboard.
Remain the Same . . . for Now

The Rumsfeld Doctrine is filled with unrealized promise of flexibility of execution and application of forces appropriate to any situation — the principal endeavor of “Force Transformation.” The first part of the equation, flexibility and execution, is now a proven capability, but the second part of the equation, the application of appropriate forces (in the postwar fighting phase) requires considerable work if the Rumsfeld Doctrine is to be successful. The problem lies within the military culture, which, like many large corporate organizations, suffers from two bureaucratic maladies, trained incapacity and professional deformation. The first is the old Thorston Veblen observation that bureaucracies set firmly in their organizational structures tend to recognize all new problems as old problems requiring the standard means of treatment. New features are treated as unwanted information and simply sheared from the intelligence reports. Janis addressed this as a condition of “groupthink” in a work of the same name.59 Professional deformation is a condition described by Robert Warnott as a situation where the means become ends in themselves and are preserved as sacrosanct rituals or entities in the traditionally anchored organization. A presentation of both these conditions can be found in Merton’s discussion of reference groups.60 Hence, the countervailing forces resist the change they desperately need to make, and thus the nation is at a junction in its military structure. Some writers argue that September 11th and the wars in Afghanistan and Iraq have preempted Secretary Rumsfeld’s plans to implement “Force Transformation” that in his opinion is a radical but necessary reconfiguration of the U.S. military.61

Incorporating New Capabilities within the Established Structure

This path represents an incremental approach that may or may not achieve the ultimate goal — a new military and way of war that is “total” in that the United States achieves its goal of reconstructing those societies and nations identified by the current administration as requiring such intervention. As mentioned above, this would require that the military (1) create a solid and very extensive nation-building capability or (2) establish far better relations among the international NGO groups and the United Nations or (3) establish our own ideologically loyal NGO configurations and/or contract nation-building functions out to private sector corporations. Another alternative is to reincorporate some old capabilities with a renewed commitment. Specifically, if the U.S. military mission is now going to encompass nation-building and it would rather keep control of the implementation of such an endeavor, then it has to possess the capability to carry out essential infrastructure construction and institution building. This would involve no small commitment. The situation in Iraq could easily accommodate a division of a modern-day version of the old Navy Seabees (Construction Battalions). If NGOs and other volunteer groups and contractor corporations are unable or unwilling to participate because of security concerns, then what other choice is there for an administration that refuses to allow the UN a major and independent role there?

Yet there are other factors that are currently on the back burner, such as the incorporation of space-based technologies. Eventually, the advance of technology will pass a kind of event horizon that cannot be contained, much less controlled, under the traditional force structure arrangement, even in the face of maximum joint operations cooperation. This will probably leave the United States extremely vulnerable to very mobile and lighter opponents. If the tide of war has shifted to the
offense as Scales has indicated, then the rise of small nation-state or state-like actors with considerable resources-to-overhead ratio are a viable threat to consider. The United States could end up thrashing at real terrorist/guerrilla threats or at surreal political-media generated enemies. The end result is a military that can inflict considerable damage, but with little real impact on the enemy. It is the path that encumbers the least internal resistance, but is fraught with the danger of being woefully inadequate should non-state entities, such as Al Qaeda, achieve the capability to design and implement strategies and execute tactics beneath our technological scope and/or perhaps equal to them, or achieve technological breakthroughs of their own that enable them to inflict serious first-strike damage to our offensive and defensive weapons systems.

Pulling the Commit Switch: A New Military

The development of a thoroughly new Armed Services is a virtually impossible task because it would require the complete cooperation of the entire military bureaucracy and its related defense contracting corporate linkages. Under this model the present structure of all branches of service would have to divest themselves of various functions and capabilities. The rearrangement would require a leap of faith and allegiance to a type of diversified and specialized set of self-contained battle and civil affairs groups under a joint command rubric that would be capable of developing and employing a variety of “plug and play” configurations for specific types of interventions. If one entertains just the overviews presented by Haass, Connaughton, Macgregor, and so forth, it is readily apparent that the task requires an overwhelming commitment on the part of the Armed Services to divest themselves of established traditions and career stakes; accept new, independent, and equal military force structures such as space corps, civilian affairs corps, special operations corps, and the like, as well as the participation of other non–war-fighting “civil affairs/nation-building organizational entities (also as equals); and concede control to a similarly expanded “joint” structure of decisionmakers and operations planners. Established military planning entities such as the Strategic Studies Institute indicate that the theoretical “ideal vision” of an authoritative handoff from the military to the U.S. civilian entities in Iraq is unrealistic. If that is the case, then how much less realistic is a vision of such a complete military reorganization effort such as “Force Transformation”?

The U.S. military is coming to a point of decision. It has perhaps a few years during which to consider all the reconfiguration possibilities. If it is to embrace nation-building as a critical component of post-intervention war fighting, then it cannot avoid developing the capabilities to do so and incorporating them into the military force structure. The handoff from war fighting to social/economic restructuring would take place in-house. From there, the eventual establishment of the pro-United States indigenous government would take place. This leaves the administration relatively free from international encumbrances, that is, the UN with its own conception of a new world order. This path has the inevitable consequence of further isolating the United States from the international community, but that is apparently of little concern to the present administration and the institutions providing it with unilateral policy positions.

2. This was, in fact, the title of the Fourteenth Annual Strategy Conference at the U.S. Army War College held in April 2003 in Carlisle, Pa.

3. See “The Fighting Next Time,” by Bill Keller, *New York Times Magazine*, March 10, 2002, 32. One of Keller’s discoveries is that, lo and behold, vested interests in the military bureaucracy are using the fact of the present conflict to deflect arguments for change. The upshot is that changes present too great a risk at the present time.

4. The irony here is that although we cannot possibly fill the vacuum by ourselves, the current administration’s disdain for the UN and its proclivity for control and domination prevents it from genuinely seeking UN assistance. Thus the tendency for chaotic conditions of failing nation-states increases, which in turn fosters the development of terror groups that the administration seeks to curb. We acknowledge the coming of a new world order, seek to further it, and ask others to embrace it, but we approach those we seek to influence with what are now outdated rationales and strategies based on the old order of the bipolar world.

5. See website llrx.com for a variety of references pertaining to GATT/WTO as guided by Jeanne Rehberg, Reference Librarian for International and Foreign Law at New York University School of Law.


10. This has been a standard claim or requirement that has never been openly challenged. I have had the opportunity to review a few papers on Guard and Reserve preparedness for such deployment. The assumptions embedded in such studies only hint at problems, but refrain from directly confronting the Pentagon’s claim of such capability.


13. The World Bank Group Poverty Net Webguide lists over seventy NGOs. These are among the most well-known international entities. See http://poverty.worldbank.org/webguide/category/5. Another Internet site claims a listing of over 33,000 NGOs in 165 nations. These range from local community-based organizations to well-credentialed international organizations. Another listing is located at www.ngos.net

14. See “Bush to NGOs: Watch your Mouths” by Naomi Klein, [Toronto] *Globe and Mail*, June 24, 2003. See also, “The Rigged Trade Game” cited in note 9. The lopsided nature of free trade is obvious to the general populations of all the third world countries that are having their local economies destroyed by the global corporations. There is growing bitterness toward the United States over trade realities, thus it is
incongruous that they should have faith in any positions the administration takes in
the name of democracy and anti-terrorism.
15. See “Outsourcing War,” by Anthony Bianco and Stephanie Forest, Business Week
online, September 15, 2003, www.businessweek.com/magazine/content/03_37/
b3849012.htm. Currently the top-tier corporations include KBR, Dyncorp, Vinnell,
Military Professional Resources, and AECOM Government Services. The article in-
cludes a brief mention about civilian contractors refusing to deploy in dangerous
combat areas.
17. See “Soldiers R Us: The Corporate Military,” by Diane Alden, SpinTech, September
Westminster Press, 1974); Richard Gabriel and Paul L. Savage, Crisis In Command:
Mismanagement in the Army (New York: Hill & Wang, 1978); William L. Hauser,
America’s Army in Crisis (Baltimore: Johns Hopkins University Press, 1973); Mark
D. Mandeles, Thomas C. Hone, and Sanford S. Terry, Managing Command and Con-
trol in the Persian Gulf War (Westport, Conn.: Greenwood Publishing Group, 1996);
20. The term refers to the addition of duties and responsibilities that are often grafted
onto the existing organizational structure, such that a drawing of the organizational
chart would represent a “jungle-gym” arrangement. It just so happens that the term
employed is “stove-piped.” An entire paper could be devoted to just the creation,
life, and death of military acronyms and phrases.
21. This author read the paper as a reviewer for the journal Armed Forces & Society.
The authors’ names were not available to me.
22. In fact, more than 13,000 satellite photos inundated the command and staff in Gulf
War I, far more than they could handle. The real technological problem for the Air
Force in that war was controlling and coordinating things in the back office. The fog
of war shifted from not having enough information about what was happening on the
battlefield to having too much information and being unable to determine what was
important.
23. There are a number of works describing the ponderous nature of the military bureau-
cracy. See Acklley and Mollerhoff, Modern Military, The Pentagon. The inertia of the
military bureaucracy works to prevent real change until external events create such
turmoil that the bureaucracy must respond. The point is that the overwhelming social
trend in Western life is the increasing domination of technology and science. Space
as the new technological frontier is vulnerable to setbacks because of such disasters
as endured by NASA recently. But progress in space exploration is as inevitable as
part of nation-state competition.
24. See David T. Johnson and Barry R. Schnieder, eds., Current Issues in U.S. Defense
Policy (New York: Praeger Publishers with the Center for Defense Information,
1976). The scenario storyboard had the “killers” orbiting in deep space, coming in to
track and destroy enemy satellites when required, and then returning to their deep
space orbit.
25. See Nick Begich, “New Non-Lethal Weapons Systems May be Used Against U.S.
Nolethalwarfare.htm.
26. The more frightening of these technologies are those that can attack the muscular,
nervous systems of the human body. There are claims that some of the technology
will be able to impact the mental condition of individuals. These technologies are
evidently falling under the radar of public comment, but evidently are being devel-
oped with the application of controlling mental attitudes and decision-making. Ac-
cording to Begich this is being called “psychotronic war.” The idea is to disrupt the
psycho-physical inner body signals if not control them.
27. David A. Morehouse, Nonlethal Weapons — War Without Death (Westport, Conn.:
Praeger, 1996).
30. Several questions have been raised by a variety of research personnel in Europe about this. For example, is the communication process itself a contributor to security or is the information content of this communication process (i.e., the website), or is it both. Does this establishment of a direct access for mass communications simplify or complicate the nature of relations between the military and the public? What are the positive and negative consequences of this for our society? What about the notion of “spin”? The public receives one presentation from one site and an entirely different presentation from another. As the reach of the Internet grows and other “spins” become more available, are these other spins to be blocked out or anticipated and responded to? A good example of this is to view the U.S. media presentation of the war in Iraq with that presented by al-Jazeera TV. How different are websites from newspapers and TV newscasts? Are they not a blend of both?
31. This author reviewed a paper (authors unknown) for publication in Armed Forces & Society. As a draft the authors had made several interesting points. This was one of them.
35. In the nuclear case, the United States demands that certain nations refrain from production, while others working in such a direction (Israel and Pakistan) are ignored. In addition, the United States reserves the right to develop an entire new generation of nuclear weapons. This is the kind of domination and contradiction that creates resentment toward the United States in various parts of the world.
36. See Seymour Leventman and Paul Camacho, “The Gook Syndrome: The Vietnam War as a Racial Encounter,” Strangers at Home: The Vietnam Veterans Since the War, ed. C. Figley and S. Leventman (New York: Praeger, 1980), 55–68. This study was concerned with the aspects of race as they may have entered into the combatants’ equation of each other. In short, it appeared that the greater the differences in the cultural, social, economic, and political structures of the conflicting nation-states, the greater the chance for race/ethnic consciousness to color the attitudes of the combatants. War among more homogenous nation-states would exhibit less racism, more “agreement” about the rules of engagement, than war among more heterogeneous nation-states. Hence, war against Germany in World War II was a “good war” while war in Vietnam was a “bad war.”
38. Leventman and Camacho, “Gook Syndrome.”
39. Metz and Johnson point out that in most warfare the more powerful conventional force has the advantage. But this advantage can be thwarted and even leveraged against the more powerful force by the use of asymmetrical tactics — guerrilla operations, protracted warfare, and political warfare. This readily proved to be the case in Vietnam where guerrilla forces outlasted the conventional armies of both the French and the Americans. As one wry journalist noted during the 1960s, the Vietnamese refused to die according to the rules of war designed by the Rand Corporation.
40. Ackley, Modern Military.
42. There is strong historical evidence that occasionally simple breakthroughs occur that
change everything. Although thinking in our time tends to associate breakthroughs with advances in complex technological developments, e.g., nuclear weapons, it may be that complexity is not an essential part of the equation. Lynn White, Jr., *Medieval Technology and Social Change* (New York: Oxford University Press, 1975) and John F. Guilmartin, Jr., "Light Troops in Classical Armies: An Overview of Roles, Functions, and Factors Affecting Combat Effectiveness" in *The Military and Conflict between Cultures: Soldiers at the Interface*, ed. James C. Bradford (College Station, Tex.: Texas A&M University Press, 1997) and others have noted how the invention of the stirrup changed the military configuration tremendously in the development of the feudal system and the Middle Ages. One can argue that a direct analogy is preposterous given the vastly different levels of technology between then and now. But the point here is that points of leverage can suddenly appear with unexpected innovation and/or clever application. Surprises in asymmetrical warfare can appear where they are not expected as the disaster on September 11th illustrated. That the enemy could realize such a weapon is only obvious now — after the fact. This begets the truism that the obvious is never obvious until some party that realizes it points it out.

43. For those unfamiliar with the concepts, the MAP may be thought of as a continuous three-day cycle where each day’s (1) air tasking order (ATO) and (2) guidance, apportionment, and targeting information (GAT) is influenced by (3) bomb damage assessment data (BDA) of the previous day. According to Mandeles, there were significant problems throughout the command and control structure and process for the duration of the Gulf War. Each of these three shops endured organized chaos, taking in disparate information, in some cases not sharing what information they had, and at times making conflicting decisions.

44. Mandeles and others, *Managing Command*.

45. For example, individuals and groups not always cognizant of the problems they were creating at the wing level frequently changed the ATO, even after it was issued. At wing level, also, individuals became justifiably concerned over whether targets were correctly identified and appropriately matched (in terms of location and timing) with the mission statements, the correct aircraft, the appropriate ordnance, support aircraft, etc. The view from the wing was often very different from that experienced by those higher in the organizational structure.

46. Apparently there was no hierarchal, distributional or relational database structure. Data tables even had some field incompatibilities. For example, the Black Hole group had developed an alphanumerical code for BDA codes, while other shops used only numerical designations; thus look-up tables were incompatible. A great deal of the work, particularly in the ATO shop was done by hand, changes made on notes. Thus, there was poor technological coordination between the ATO, GAT, and BDA shops.


49. Segal, *Recruiting*.


51. Numbers of articles concerning this matter have finally been appearing in both the national and local press. Included in these articles and opinion sections are comments from soldiers and reservists expressing doubts about the war and the extension of commitment of Guards and Reserves. See “Reservists Families Settling in for Long Wait,” *Concord Monitor*, September 11, 2003; see also “Boots on the Ground, Family Back Home,” *New York Times* Op Ed, Sunday, September 21, 2003. The author, Lt. Col. Mark L. Kimmey, questions whether the Army is “taking advantage of its re-
servists?” The Associated Press correspondent, Barry Schweid, recently reported that
the vice-chair of the Joint Chiefs of Staff, General Peter Pace, has indicated that
there may be a need to call more reservists; see “Germany Offers Bush Support,” Concord Monitor, Thursday, September 25, 2003, A5.
52. See Conrad C. Crane and W. Andrew Terrill, Reconstructing Iraq: Insights, Challenges, and Missions for Military Forces in a Post-Conflict Scenario (Carlisle, Pa.: Strategic Studies Institute, 2003).
53. See Maj. Gen. Robert H. Scales, Future Warfare Anthology (Carlisle, Pa.: U.S. Army War College, 2000). He notes how the pattern of cycles in the development in the technology is very apparent in the production of complementary goods. One obvious example resides in the computer industry where for years cycles of hardware development were matched and exceeded by software developments, the requirements of which were in turn matched and exceeded by hardware development so as to spur another round of software development.
55. See Douglass A. Macgregor, Breaking the Phalanx: A New Design for Landpower in the 21st Century (Westport, Ct.: Greenwood Publishing Group, 1997). Macgregor envisions each group or groups as being mission-specific in capability, to be employed as needed. This is reflective of the computer hardware/software concept of “plug and play.” The lack of police capability we are currently experiencing in Iraq would ostensibly be overcome under this reorganization. So we would have peacekeeping forces and a nation-building group, a war-fighting group, etc.— a group or set of groups for each type of intervention mode/model. He addresses a number of issues where change has to be applied including in the area of logistics, command nodes, and the incorporation of new technology.
56. Ibid.
57. The global economy is not economic exchange, but rather a trade war. The issue is not modernization, but rather dependency. The politics of change is not democracy but client-state. The political economic landscape is shifting again, from the Thatcher-Reagan supply-side, free-market, economics back toward government intervention, and in nations that Jergin and Stanislaw touted in their The Commanding Heights: The State and the Markets,” Union Press, 1998.
58. Crane and Terrill, Reconstructing Iraq. The study indicates that the scenario played out in Afghanistan alienated many of the civilian aid organizations. Particularly worrisome for the NGOs was the entrance of Special Operations Forces into the aid arena. The nation-building tasks will require an incredible commitment of time (a minimum of at least five to six years), and human and economic capital to accomplish the twenty-one missions across a four-stage timetable that includes 35 critical, 32 essential, and 68 important tasks.
62. Scales, Future Warfare Anthology.
63. Haass, Intervention; Connaughton, Military Intervention; Macgregor, Breaking the Phalanx.
64. In the Crane and Terrill monograph on reconstructing Iraq (at page 45) two graphs are presented. The second “realistic vision” has the military handing off authority directly to the indigenous organizations rather than their U.S. civilian counterparts. Why is this? The only logical answer is that it is a matter of power and control.