

Which Army After Next? The Strategic Implications of Alternative Futures

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As a new millennium approaches, the world is poised at the confluence of two great forces. One is the revolutionary transformation of the global security environment as the Cold War system transmutes. The second is a compression of time, a quickening of the pace of change so extensive and extreme that it too must be considered revolutionary--strategic horizons now reach decades into the future, rather than the more traditional months or years. Together, these forces are changing the way strategists view the world. Conceptual and speculative thinking is no longer limited to scholars but has taken on real and pressing military implications.

General Gordon Sullivan first institutionalized a concept-based, long-term orientation in the Army with the creation of Force XXI. From that base, General Dennis Reimer set his sights further into the future through the Army After Next Project. As a result, conceptual and futuristic thinking is becoming mainstream. Some of the information needed to build the Army of 2020 and beyond is relatively straightforward. For instance, it is possible to extrapolate from current trends a reasonable picture of what might be technologically feasible two decades from now. Similarly, futurists can predict the functions and missions of the Army after next. Other aspects of the future Army are more speculative. One of the most important is the structure and features of the strategic environment.

The orthodox position within the Army and the Department of Defense holds that the strategic environment of 2020 will be much like that of 1997.[1] Sovereign nation states will remain the most important political units. Warfare will continue to be Clausewitzian as nation-states build militaries on a core of professionals and use them to promote or protect national interests. Diplomacy and deterrence will be the primary mechanisms to prevent armed violence. Because of misperception, aggression unleashed by autocratic regimes, or violence used by insurgents or separatists, these will sometimes fail and war will break out. Then coalitions of national armed forces will seek to thwart the aggression and restore a balance of power, or protect a state under attack from insurgents or separatists. While the orthodox position anticipates dramatic improvements in the effectiveness of militaries able to capitalize on the revolution in military affairs made possible by information technology, war will remain essentially *political, episodic, violent, state-centric, and distinct from peace*. The orthodox position expects only evolutionary change in the strategic environment.

Americans should hope that this is accurate. We understand the sort of war on which the orthodox position is based, and when our hand is forced our armed forces are extraordinarily good at it. But there is a chance that the strategic environment of 2020 may diverge from that of 1997 in fundamental ways, changing *who* fights, *why* they do so, and *how* they do so. If this happens, the US Army could be forced to undertake some of the most radical changes in its history. While it is impossible to predict the nature of the future security environment with certainty, it is possible to sketch an array of feasible alternatives and begin to explore the implications each might hold for American landpower and the US Army.

Alternative I: A Trisected Security System

In some feasible security systems, there is a clear, central source of conflict, as in the Cold War. But these are rare. The historical norm is a system shaped by several more-or-less-equal sources of conflict. The future system may fit this mold. Since interconnectedness and demassification are advancing at different rates in different parts of the world, the likely result is a global system composed of three tiers. Trisection is actually a common pattern for describing global or regional political systems. The ancient Greeks and Chinese divided the world into "civilized," "semi-civilized," and "barbarian" parts. Muslims distinguished among those who followed Islam, the "peoples of the book" (Jews and Christians), and heathens. The "world-system" analysis that became popular in Western universities in the 1970s reflected a more economically oriented scheme based on "core," "periphery," and "semi-periphery."^[2] Even more recently, scholars and strategists talked of the First, Second, and Third worlds, while Marxists divided the world into capitalist, socialist, and proletarian segments. This frequent recurrence of trisection suggests that it may be a natural form for international systems.

If the future security system should once again be a trisected one, the First Tier of the system will be characterized by stability, prosperity, and multidimensional integration. Its economies will depend on the management, manipulation, and creation of information rather than traditional heavy industry. Demassification and interconnectedness will be most strongly felt here. Businesses (and eventually governments) will stress flexibility and creativity, with diminishing distinctions among management, development, and production in terms of both functions and people. Economic interdependence and cultural homogeneity will link the First Tier into a seamless web. As the First Tier integrates, concepts such as national interests, national boundaries, and sovereignty will decline in significance. Governments will often see themselves as the agents of business. Even though First Tier regions will experience some serious political conflict growing from the difficulty in adjusting to the various currents of change, governments will be generally effective at least in providing basic resources like security. Democracy will be increasingly participatory as technology allows a regular and sustained citizen role in political decisionmaking. Aversion to violence will be a prominent component of the First Tier ethical system. Force will be seen as an absolute last resort, with intense pressure to keep military activity quick and cheap. Security strategies will stress conflict prevention; military strategies will be defensive.

The Second Tier will be composed of what are today known as "newly industrializing countries" and the more advanced states of the former Soviet bloc. Traditional industrial production will remain the economic bedrock. The distinctions among management, development, and production will persist, with social status and political power closely linked to an individual's position in the productive process. The state and business will sometimes be equals; at other times, one or the other will temporarily dominate. The sovereign nation-state will remain the central political and economic institution. The most intense political debates in the Second Tier will pit those who seek greater integration into the world culture and economy dominated by the First Tier against those who oppose it and, instead, favor economic nationalism and cultural particularism. The Second Tier will see cycles in which representative democracy emerges only later to be replaced by some form of sham democracy or outright authoritarianism. The shifts to and from democracy are likely to be violent. Secessionism will pose a significant challenge to the governability, viability, and stability of many Second Tier states. In fact, secessionism in the Second Tier will pose some of the most dangerous challenges to the stability of the future security system. Sovereignty will be jealously guarded by Second Tier leaders. Their security and military strategies will remain imbued with the notion of just war and the idea that national interests sometimes require the use of state-controlled violence.

By contrast, economic stagnation, ungovernability, and violence will be pervasive in the Third Tier. Informal economies based on subsistence production, barter, and crime will be more important than the formal economy for most citizens of the Third Tier. Parts of the Third Tier will remain linked to the global economy through the extraction and export of primary products and the import of manufactured goods and foreign aid, but this will affect only a small proportion of the population. Governments will continue to

dominate these shrinking formal sectors of the economy, with the relationship largely a parasitic one. Most areas of the Third Tier will abandon or be abandoned by the world culture, thus leading to the emergence of distinct micro-cultures. Ironically, this will be something of a boon since it will lead to the export of intellectual products like art and music to First Tier consumers in quest of "something different."

The Third Tier will experience recurring bouts of ungovernability. The effectiveness of the state will drop dramatically outside major cities, and will be minimal even in large parts of the urban areas. Outright anarchy will be common, and many current states will fragment. Democracy will be attempted but almost always fail. Ungovernability will be exacerbated by an accelerated "brain drain" as the educated and ambitious emigrate. Ironically, though, there will also be immigration into the Third Tier by groups of economic, political, and cultural dissenters from the First Tier who reject integration into the global economy and culture. If history holds, these groups may energize otherwise stagnant economies. Where the First Tier will be characterized by a widespread aversion to violence and the Second Tier by the notion that violence is justified under certain conditions (e.g., when used by the state in pursuit of legitimate national interests), violence in the Third Tier will be a routine part of daily life. Ethical constructs like "just war" or casualty aversion will have little meaning in a region where gunfire, explosions, coercion, and personal brutality are depressingly normal.

In a trisected global security system, each tier would focus on different forms of conflict and configure their military forces accordingly. First Tier militaries will probably develop along the lines suggested by current thinking about the revolution in military affairs.[3] Armed forces will be small in terms of the number of people involved, but will make extensive use of technology. Robotics, information technology, and nanotechnology--the ability to mechanically manipulate molecules and molecular structures during assembly and manufacture--will become increasingly important.[4] Military units will be extremely flexible, able to reorganize rapidly and adapt to a wide variety of tasks. Defensive information warfare--protecting information systems against hostile action--will be an important military mission. First Tier armed forces will also develop offensive information warfare to disable or confuse opponents. In fact, information warfare will be the only type of military action that First Tier states would consider using against each other given the restraints growing from interconnectedness. However, information warfare will also have utility against Second Tier and even some Third Tier enemies.

Even though First Tier states will not wage traditional war against each other, they will occasionally use violence against Second Tier and Third Tier enemies. As First Tier states prepare for this, the need to minimize casualties will play a major role in force development. For instance, weapon systems will be deconstructed in that the sensor, operator, and strike platform will be physically separated rather than coterminous as in many of today's planes, warships, tanks, or infantry units. Soldiers on the future battlefield, Brian Nichiporuk and Carl H. Builder suggest, may be more important as sensors feeding information to distant strike platforms than as a source of firepower.[5] At the same time, robotics and other brilliant weapon platforms will become increasingly important. Long-range, stand-off strikes and reliance on nonlethal or less-lethal weapons (including weapons aimed at psychological incapacitation rather than physical harm) will be the norm.

Because of casualty aversion and the expense of weapon systems based on advanced technology, what might be called "burst" operations will replace sustained campaigns as the most important form of military activity. Political decisionmakers will be unwilling to use their powerful but small and casualty-averse militaries in any activity that cannot be completed quickly. Militaries will adapt to this by the revolutionary transformation of doctrine and mastery of burst operations. Burst operations will not require or allow mobilization, whether of military forces or political support, so military reserves will not be important. Military strategy will consist largely of active defense and spoiling or punishing attacks. These attacks are likely to become more psychologically sophisticated as First Tier military planners learn how to structure and time strikes to have the maximum psychological effect on target audiences. The main tasks of senior

military leaders will be to adapt and reconfigure military organizations rapidly as tasks and conditions change, and to plan burst operations. The essence of strategic leadership will be creativity in complex and compressed decision environments.

First Tier states will also undergo radical changes in civil-military relations. The core dilemma for traditional civil-military relations has been finding a way to cultivate and sustain a body of people with the ability to do things considered abnormal by civilians--to transcend physical discomfort, master fear, and kill or coerce enemies--without undercutting the day-to-day comity that undergirds society. This has required simultaneously cultivating a warfighter's ethos and instilling the belief that violence must be used only under very special circumstances and against specific targets. Stable civil-military relations have kept warfighters separate from the rest of society (physically and psychologically) without allowing them to become so isolated that they might turn against society. In the future, this may not be necessary. First Tier armed forces seldom will need to undergo physical hardships or kill at close range. Killing itself will be limited. When it does become necessary, it can be done from far away or by robots. This means that First Tier states will no longer have to erect a psychological and attitudinal wall between the military and society. Soldiering will be much like any other white-collar job. The notion of a distinct military ethos will become quaintly archaic.

By contrast, the armed forces of Second Tier states will still focus on war in the traditional, Clausewitzian sense with its sequence of preparation, mobilization, combat operations, and demobilization. They will also retain distinct militaries organized around separate services defined by the medium in which they operate. Because Second Tier states will have a higher tolerance for casualties, their militaries will place relatively less emphasis on expensive technology and more on the blood of soldiers, marines, sailors, and airmen. Unlike First Tier armed forces, Second Tier militaries will be capable of sustained, costly, intense operations or campaigns. Second Tier militaries will rely heavily on commercial technology. They will also remain vulnerable to information warfare since they will be end-users of cutting edge technology rather than its master.

Nuclear weapons may be used somewhere in the Second Tier before 2020. If this happens, it will result in such a political backlash that for nation-states, weapons of mass destruction will be relegated to a purely deterrent role (although terrorists will continue to find them useful). Second Tier militaries will have a moderate power projection capability against each other, but will have limited or no success against First Tier armed forces. The essence of strategic leadership for Second Tier militaries will remain synchronization during complex operations and the balancing of short-term and long-term security considerations. Civil-military relations will follow the 20th-century model, with the military psychologically and physically separated from civilian society but usually controlled by civilians.

Third Tier armed forces will take the form of armed gangs, militias, the personal armies of warlords, and terrorist groups. The Third Tier will have no indigenous military production, so its armed forces will have limited ability to wage sustained, combined-arms operations. The norm will be short, intense periods of combat that exhaust military supplies followed by long periods of low-level fighting or maneuver. In general, there will be no clear distinction between war and peace since much of the Third Tier will experience nearly constant low-level organized violence. As in Europe before the Treaty of Westphalia, the acquisition of materiel or loot is likely to be the preeminent objective of Third Tier military operations. Terrorism will be the only form of long-range power projection available to Third Tier political organizations. But, because the nature of Third Tier life will cause an erosion of ethical restrictions or inhibitions on the use of violence, states or warlords will have no compunction about using terrorism. The most important leadership skill will be the ability to motivate subordinates to accept danger and remain loyal. Personal charisma, which will matter less in First Tier and Second Tier armed forces, will characterize successful Third Tier military leaders. There will be little distinction between the military and society, and thus no civil-military relations in the traditional sense.

In general, conflict across the three tiers will be like the children's game "scissors, paper, rock." High-tech First Tier militaries will be able to defeat the large and somewhat lower-tech forces of Second Tier states with relative ease, but will find casualty aversion a serious constraint when fighting the militias, terrorists, and private armies of the Third Tier. Second Tier militaries, with their large size, ability to undertake sustained, intense operations, and greater tolerance for casualties, will have more success against Third Tier forces. And, while Third Tier forces will be unable to stand and face Second Tier militaries, they will find that their lack of inhibition on the use of indiscriminate violence gives them some influence on the First Tier, particularly when they can use terrorism to extort aid or deter intervention. This all means that First Tier militaries will be able to trump Second Tier; Second Tier militaries will be able to trump Third Tier; and Third Tier will be able to trump First Tier.

Alternative II: The Renaissance of Ideology

With the collapse of Marxism-Leninism, the world is not clearly divided by competing transnational ideologies. This may be a temporary lull rather than a permanent "end of ideology" as predicted by Daniel Bell in the 1960s or, more recently, by Francis Fukayama.[6] Humans seem to have an instinctive psychological need for some sort of mass belief system--whether it is called a political ideology or not--that explains social conditions and offers apparently coherent solutions to political and economic problems. As the 21st century approaches, it might seem that nationalism and ethnicism have supplanted ideology as the primary framework of social and political identity. This overlooks the fact that nationalism is on the rise only in a relatively small segment of the global security system--the former Soviet bloc. The same is true of the argument that ethnicity will be the dominant political force in the future security environment. This holds only for regions a generation or two removed from colonialism (whether European or Soviet) and very well may subside in the early 21st century. As global interconnectedness grows, it is possible that nationalism and ethnicism will no longer define political divisions and thus not serve as the primary sources of world conflict. Given the intense pace of change that will characterize the 21st century and the feelings of powerlessness that it will generate among much of the world's population, conditions may be ripe for the reemergence of transnational ideologies.

The ideologies of the future could take several forms. Samuel P. Huntington has argued that the next pattern of conflict may be a clash of civilizations.[7] "Civilizations" in the sense that Huntington uses the term are psychologically related to ethnicity, but are based on beliefs, values, preferences, and norms rather than the sort of physical or linguistic characteristics that undergird ethnicity. In Huntington's schema, the "fault line" running through Europe that divides Western Christianity from Orthodox Christianity and Islam will be particularly dangerous. This could lead to a bipolar security system pitting nations based on Western culture (to include Japan) against a coalition of non-Western cultures. There are other conceivable configurations for an ideological bloc system: democracies versus anti-democracies, capitalism versus anti-capitalism of some sort, modernizers versus anti-modernizers, globalists versus regionalists, and so on.

In any security system dominated by ideological blocs, most armed conflict will occur along the fault lines or gray areas. War will sometimes accompany the process of establishing or adjusting the boundaries between blocs. Violence may break out when a state attempts to move from one bloc to the other. Violence would also be associated with attempts by members of one bloc to support dissenters inside opposing blocs since whenever ideology is intense, governments have little tolerance for internal opposition. Witness the "Red scares" in the United States in the 1930s and 1950s, and Stalin's various purges. Conflict and violence in an ideology-based system would range from terrorism and insurgency through full-scale coalition war, so militaries would need to retain a wide range of capabilities. Within blocs, militaries would probably develop along similar lines, in part to facilitate coalition operations. But, as during other ideological struggles, whether the Cold War or the Crusades, there would be significant differences between the military forces of the blocs. Because violence between conflicting belief systems tends to be particularly vicious, there would

be little pressure to limit collateral damage or civilian casualties during military operations. Decisive victory at any cost would be the preeminent criterion for military strategy and force development.

The inherent rigidity of an ideologically-based security system diminishes the effectiveness of diplomacy. In a world filled with weapons of mass destruction, states will attempt to forestall conflict with diplomacy, but it is always difficult to negotiate on core beliefs and, in an ideologically-based system, that is what is at stake. Many diplomatic stratagems are ruled out *a priori* because they are seen as "striking a deal with the devil." As a result, the military element of national power rises in importance. The US military probably could expect higher defense expenditures and a larger force in an ideologically-based security system than in one built on a flexible balance of power.

An ideologically-based system has a much clearer and more rigid strategic geography than a balance-of-power system since conflict and violence tend to occur along the fault lines or gray areas between the ideological blocs. If American policymakers opt for extensive US involvement in promoting the security of one bloc or in serving as some sort of buffer between several of them, that is where the military would be involved. In addition to deterring aggression and defending along the bloc fault lines, the US military would also be used to reassure weaker or nonaligned states by helping them with external defense and with internal order. Because an ideologically-based system would involve long-standing, formal alliances rather than the fluid, ad hoc coalitions that typify a balance-of-power system, the US military would have the time necessary to resolve interoperability problems with its partners. The problem of asymmetry--which is sure to arise as the United States pursues the revolution in military affairs and other nations cannot or do not--would persist. And, because the zone of conflict in an ideologically-based system would be geographically defined, this is the global security system that would require the greatest amount of US landpower (assuming American policymakers opt for engagement). This does not necessarily imply that an extremely large US Army would be necessary, since the revolution in military affairs is likely to allow technology to compensate for numbers, but effective US landpower would be required to support and bolster allies in the zone of conflict.

Alternative III: Internal Collapse

Strategic thinkers such as Ralph Peters and Martin van Creveld contend that the most significant source of conflict in the future security system will not be traditional state-on-state war, but the power struggles involving sub-state actors such as criminal cartels, militarized gangs, private armies, terrorists, ethnic militias, and insurgents.[8] Even developed states would face serious threats from organized crime, urban gangs, regional separatists, conspiracy-theory terrorism, radical cults, neo-Luddites, and violent environmentalists. War would be less the extension of politics that Clausewitz talks of than an act of theater in which the participants seek psychic fulfillment, personal identity, or a quest for booty. In such a system, the primary threat will be internal disorder.

As internal order erodes, democracy and civil rights would be abrogated in the name of public safety. Authoritarianism would be the norm; anarchy would be common in regions with less resilient or resource-rich states. Governments would be so busy dealing with internal problems that they would have little energy or inclination for traditional interstate war. The prevalent form of military power projection might be the support or threatened support of rebels, insurgents, terrorists, and militias engaged in destabilizing hostile states. Militaries would take the form of national police, gendarmes, or special forces. They might be high-tech, but they would have little capacity for large-scale, long-range power projection. Nations would build armed forces to counter insurgency, terrorism, and other forms of violence within the state's borders and inside friendly states, and to support insurgency and terrorism within the borders of enemies. The factors distinguishing the armed forces of different states would be the level of technological advancement and the degree to which the use of violence against internal enemies was constrained or unconstrained. In general, more advanced militaries could afford to be more restrained in the use of violence, substituting technology,

especially information and psychological technology, for primitive violence. Less sophisticated armed forces would have to rely on old-fashioned brutality.

In a security system dominated by internal disorder and the collapse of state authority, there would be little sustained, state-on-state war. States would use force to intervene in neighboring states and stem the spillover of disorder, but seldom against each other. This would mean that the US military would abandon its conventional warfighting mission and focus instead on internal order, counterterrorism, nation assistance, peace support operations, and humanitarian relief. The Army could be dominated by Special Forces, with small, flexible units given extensive training in languages and local politics and designed to provide advice and training to allies. The revolution in military affairs, which so far has focused on conventional state-on-state warfare, would be altered to produce more efficient and effective means of operating in a low-intensity conflict environment.[9] A security system dominated by internal disorder and the collapse of states would be one in which the US Air Force and the US Navy would play a smaller role than in some of the other alternative futures. Aerospace and naval power would be used primarily for border patrols, anti-smuggling activities, and prevention of illegal immigration, with some capacity for long-range but small precision strikes.

Alternative IV: The Commercialization of Warfare

A final plausible future security system is one where war is less an extension of politics than of business. Corporations, cartels, and states might use violence and coercion--whether traditional, physically destructive violence or new forms such as cyberviolence or psychological violence--to attain access to resources and markets or deny it to others. Organized violence itself may become a common commodity sold on contract. As states and their militaries prove less capable of meeting the security threats of the future, people, organizations, and businesses might look for other sources of security. More and more of the functions now performed by state militaries thus would be assumed by transnational security or mercenary firms or by the security divisions of transnational corporations.

Movement in this direction is already evident. In Africa, a corporation called Executive Outcomes, composed largely of former South African commandos, has been hired by a number of governments, and many former South African spies are forming private intelligence-gathering agencies.[10] Mercenaryism is on the rise in other regions of the world as well.[11] In early 1997, for instance, the governments of Zaire and Papua New Guinea recruited mercenaries to fend off insurgents. This may be only the beginning of a trend. If the revolution in military affairs continues along its current trajectory and militaries become smaller, more technology-reliant, and less dependent on individuals with high levels of physical fitness and the ability to face physical danger, private militaries will become even more competitive with state ones. If a warrior fights from a computer terminal using computer viruses and the like, states will contract out national security rather than undertake the expense of forming and sustaining armed forces. A parallel trend is underway in the world of intelligence. In the United States and Western Europe, private intelligence companies are proliferating.[12] The massive expansion of information and the growth of the Internet are making open-source intelligence of all kinds nearly as good for most purposes as traditional intelligence with its reliance on clandestine sources and expensive technology.

In a system characterized by economic warfare, military force structure, doctrine, and equipment would be designed to minimize collateral damage when used. If the objective of military operations is to acquire or defend resources and markets, the goal would obviously be to do as little damage as possible to infrastructure, plant, and equipment. Since casualties diminish potential customers, nonlethal weaponry will play a prominent role in military operations. The most important military missions would be information warfare against competitors and protection of informational, physical, and human assets against violence and extortion.

In a security system where warfare was commercialized, many of the United States' core strategic concepts would be inapplicable. For instance, the US military could no longer count on the qualitative superiority that has served it so well since the end of World War II. Against high-tech mercenaries, corporate militaries, private armies hired by enemy states, or armed criminal cartels, the US military might have to switch to a Soviet-style strategy using numbers and mass to compensate for qualitative inferiority. The United States would also have to rethink its basic understanding of the rules of warfare when faced with issues like the appropriateness of declaring war, forming alliances, or signing treaties with non-state entities. Washington could face future Battles of New Orleans, where a militarily weak United States formed an alliance-of-convenience with the pirate forces of Jean Laffite. At an even broader level, the United States would have to decide how much of its own security could be "contracted out" rather than left to its very expensive military.

Conclusions

The alternative future security systems sketched here are not mutually exclusive. The world of 2020 and beyond will be an admixture of each. The question is, which of the feasible forms of security and warfare will be the most strategically significant. While this cannot be predicted perfectly, there are two things the Army can do now to prepare. One is to use its impressive intellectual resources to cultivate an understanding of the features and implications of alternative long-term futures. The second is to inculcate conceptual, doctrinal, and organizational flexibility. Many of the feasible future security systems diverge radically from the orthodox position held by the Army, the other services, and the Department of Defense. In most of them, traditional state-on-state warfare is insignificant. While it would certainly be premature for the US Army to abandon its focus on this type of conflict now, it would be equally dangerous for it to refuse to move away from traditional warfighting if the future security environment shows clear signs that such capabilities will not be important. The future will belong to those able to adapt rapidly. Strategic dinosaurs will find their eggs eaten by small mammals which did not initially appear to pose much danger.

NOTES

This essay is a shortened version of *Strategic Horizons: The Military Implications of Alternative Futures* (Carlisle Barracks, Pa.: US Army War College, Strategic Studies Institute, 1997).

1. See, for instance, TRADOC Pamphlet 525-5, *Force XXI Operations*, August 1994.

2. For example, Immanuel M. Wallerstein, *Geopolitics and Geoculture: Essays on the Changing World-System* (Cambridge, Mass.: Cambridge Univ. Press, 1991).

3. See, for instance, Stuart E. Johnson and Martin C. Libicki, *Dominant Battlespace Knowledge: The Winning Edge* (Washington: National Defense Univ. Press, 1995); Martin C. Libicki, *The Mesh and the Net: Speculations on Armed Conflict in a Time of Free Silicon* (Washington: National Defense Univ. Press, 1994); and Barry R. Schneider and Lawrence E. Grinter, eds., *Battlefield of the Future: 21st Century Warfare Issues* (Maxwell AFB, Ala.: Air Univ. Press, 1995). For a theoretical and historical perspective on the revolution in military affairs, see Steven Metz and James Kievit, *Strategy and the Revolution in Military Affairs: From Theory to Policy* (Carlisle Barracks, Pa.: US Army War College, Strategic Studies Institute, 1995).

4. On nanotechnology, see Charles Ostman, "Nanotechnology: The Next Revolution," *21st Century Online Magazine*, <http://www.21net.com/online/nano.htm>.

5. Brian Nichiporuk and Carl H. Builder, *Information Technologies and the Future of Land Warfare* (Santa

Monica, Calif.: RAND Corp., Arroyo Center, 1995), pp. 64-67.

6. Daniel Bell, *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties* (New York: Free Press, 1962); Francis Fukayama, *Have We Reached the End of History?* (Santa Monica, Calif.: RAND Corp., 1989).

7. Samuel P. Huntington, "The Clash of Civilizations?" *Foreign Affairs*, 72 (Summer 1993), 22-49.

8. For instance, Ralph Peters, "The Culture of Future Conflict," *Parameters*, 25 (Winter 1995-96), 18-27; and Martin van Creveld, *The Transformation of War* (New York: Free Press, 1991).

9. For details, see Steven Metz and James Kievit, *The Revolution in Military Affairs and Conflict Short of War* (Carlisle Barracks, Pa.: US Army War College, Strategic Studies Institute, 1994).

10. "Private Intelligence-Gathering Companies Increase," *Financial Mail* (Johannesburg), 17 January 1997, reprinted in Foreign Broadcast Information Service (FBIS)-AFR-97-011, 17 January 1997 (electronic edition).

11. See "We Don't Do Wars," feature story on Australian Radio National, 15 June 1997, transcript at <http://www.abc.net.au/rn/talks/bbing/bb970615.htm>.

12. See the essays of Robert Steele, founder of Open Sources Solutions Inc., at <http://www.oss.net/Main/>.

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