Cover

The Spanish navy\'s sail-training ship Juan Sebastian de Elcano approaches the Claiborne Pell Bridge on Sunday, 2 July 2009, during the Parade of Tall Ships in Narragansett Bay off Newport, Rhode Island. The 3,240-ton, four-masted topsail schooner, which carries a crew of 224 plus eighty cadets, has been in service since 1928. Visible in the background, on Coaster\'s Harbor Island just forward of the ship\'s bow, is Hewitt Hall of the Naval War College. Photograph by PHC Jon H. Hackettsmith, U.S. Navy.

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Vice Admiral Cebrowski has commanded Fighter Squadron 41 and Carrier Air Wing 8, both embarked in USS Nimitz (CVN 68). He later commanded the assault ship USS Guam (LPH 9) and, during Operation DESERT STORM, the aircraft carrier USS Midway (CV 41). Following promotion to flag rank he became Commander, Carrier Group 6 and Commander, USS America Battle Group. In addition to combat deployments to Vietnam and the Persian Gulf, he has deployed in support of United Nations operations in Iraq, Somalia, and Bosnia. He has served with the U.S. Air Force; the staff of Commander in Chief, Atlantic Fleet; the staff of the Chief of Naval Operations; on four occasions with the Joint Staff (as J6); and as Director, Navy Space, Information Warfare, and Command and Control (N6). Vice Admiral Cebrowski became the forty-seventh President of the Naval War College in July 1999.
While achieving institutional change has always been an uncertain and perilous undertaking, it is all the more so when we find the foundations of our decision rules to be on shifting sands, as they are now. Put another way, the very factors that make institutional transformation so difficult have made it imperative.

The ability of America’s defense forces to adapt and maintain a process of continuing transformation will be the key to an enduring competitive advantage, yet it remains a vexing challenge. The spring 2000 intersessional conference at the Naval War College focused on “Strategic Change, Transformation, and Military Innovation”—both timely and pertinent issues.

Strategic Change and Contradictions. To say that such efforts are difficult in these times of great change understates the problem and does not adequately characterize this era. Governing rule sets are changing. Well-understood principles are no longer reliable. This is evident at many levels in the form of contradictions. For example, as the sole superpower and as the world’s single largest economic force, the United States is a status-quo power in a rapidly changing world. The United States causes much of the change, and we cannot prevent it. We see ourselves as not only a benign giant but also a well-intended one. Yet our dominating global presence disrupts and even destroys the cultures of people with whom we intend stable relations. Another apparent contradiction is that even as the process of globalization, with its unifying forces, moves forward at an ever-quickening pace, we are witnessing a historic rate of growth in the number of political, social, and economic entities. The United States may have made the world safe for “demassification” of such entities; that is, there is a sense of safety without mass. Yet another apparent contradiction is that wealth increasingly accrues to those who desert the well understood and highly optimized means of wealth generation in favor of emerging and not-yet-understood concepts.

In the national security and military areas, we see similar evidence of tectonic shifts in the reference framework for decision making. Our military theory
springs mainly from the intersection of the industrial age and the concept of mobilizing a nation-at-arms for foreign wars. One is gone, the other defunct. The ramifications are profound but not yet understood. Furthermore, the outcome of military action is no longer closely coupled to the degree of destruction. Even as militaries pursue precision weapons, it is increasingly difficult to see how they can achieve precision effects—that is, those that affect the behavioral aspects of an opponent, especially at the policy level. So while achieving institutional change has always been an uncertain and perilous undertaking, it is all the more so when the foundations of our decision rules are on shifting sands, as they are now. Put another way, the very factors that make institutional transformation so difficult have made it imperative.

The era of great power military competition is only temporarily over. In the meantime, new hedging strategies are required. Uncertainties force us to consider a host of military contingencies across the full spectrum of conflict. Perhaps the most important of these involve adversaries who seek ways to deny us the ability to project military power into their regions of the world.

A second challenge is the accelerating pace of technological development, especially in the area of information-based systems. Rapidly emerging technologies hold the prospect of significant changes in the character of warfare over the coming decades—perhaps leading to what have been termed “revolutions in military affairs.” Most of these new technologies have yet to be exploited fully for military use or tested in combat; thus, we have only limited insight into either the opportunities or the challenges they may hold for us.

Overarching these challenges is a U.S. defense budget that is static or even declining relative to need. Some see this as greatly limiting the number of options that the nation can comfortably select for our military force of the future. Others see in the budget pressures an opportunity to open our minds to new options and liberate ourselves from our past.

_The Need for Innovation_. Our military is not alone in having to face a rapidly changing competitive environment. Over the past two decades, the revolutionary pace of the information age has forced virtually every commercial business to reorganize and adapt—or be overrun by the competition. Those who have adapted successfully can give an indication of the scope and depth of organizational transformation with which the military must deal.

This is not the first time that militaries have faced this type of challenge. The history of warfare is a story of both evolution and revolution in military systems and capabilities, as adversaries have sought to exploit new technologies for competitive advantage on the battlefield. A review of military history reveals that some countries have done well in this competition to innovate but that others
have done poorly. Some militaries have failed because they did not see or understand the changes that were occurring in the character of warfare. Others had a clear vision but failed in their efforts to implement that vision. Still others understood what needed to be done but innovated too late or too early. (Yes, it is possible to be right too soon.)

The Process of Innovation. For both the military and for commercial business, innovation has proven very difficult to achieve. Most organizations were created to establish and maintain order and predictability in their operations. Successful organizations are naturally oriented toward continuous improvements in what they do—that is, they perpetually seek to optimize the familiar tasks that they have performed so well.

By contrast, an innovation is a major departure from this linear path of continuous improvement. It changes the rules of the competition and introduces new measures of effectiveness. A successful innovation can offer significant advantage to the side that first achieves that capability—competitors must emulate and adapt or face the prospect of defeat.

Since major change entails cost and risk, the burden of proof is on the innovator to demonstrate that the bold new approach is a desirable alternative to the existing order. The innovation finds natural opposition within most organizations, because it proposes to trade a familiar and usually successful set of systems and concepts for new and untried methods. Moreover, any innovation alters the social and cultural order established around current systems and operational methods. In the military this often translates into different command relationships and new professional qualifications for promotion and command. This overall disruption of the organization and its culture, often extending well beyond the military itself, serves as the primary impediment to truly innovative activities.

The central lesson is that an innovation is more than just the introduction of new technology. The process of innovation requires the articulation of a vision of how a technology or operational concept can be used to gain a significant advantage in the future competitive environment. Innovation requires implementation of the vision at the right time and across the entire organization—generally in the face of significant resistance. Understanding the technological opportunities, articulating the vision, and actually implementing that vision constitute the essence of the transformation process. Innovators can expect to be confronted by the simple reality that the need has not yet been articulated in an acceptable way and that consent to the indicated changes in methods, organization, careers, etc., is being withheld. What they face can be described simply: "I don't need it, and I don't want it!"
**Becoming an Adaptive Organization.** Despite the natural impediments to change, many organizations do innovate successfully. History offers broad insights into the pathway to success. Foremost among these is that militaries that have been particularly innovative have tended to focus more on the **process** than the product. Rather than attempting to build forces for predicted futures, they created organizations that could adapt successfully and rapidly to many possible paths and developments.

At its heart, then, transformation is a journey, not a destination—a process, not a goal—a continuum, not an achievement. Efforts at transformation must focus on recognizing, developing, and guiding emergent behavior that will position the enterprise favorably for an unknown and unpredictable future that is also recognized as emergent.

This theoretical discussion of transformation, however, leaves us with many questions, which must be worked out on a continuing basis. For example, how are the character of military operations and their utility to the nation evolving? What new means and methods for securing the national interests will emerge? How do we best exploit emerging technologies and leverage the nation's advantages in these technologies and processes? How do we keep our concerns about the present from consuming our future? What specific qualities will be required of our military—after-next to ensure that it retains dominance even as the definition of dominance shifts? How do we destroy the world's most efficient fighting machine to create a new one appropriate to a new age that we do not yet understand? These issues and others are being addressed here at the Naval War College. But that work cannot be confined to Newport. It must be exported and debated broadly in America. Our future may depend on the expanse and quality of that debate.

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This article is adapted from a Contemporary Civilization Lecture delivered at the Naval War College on 14 October 1999.
THE END OF WARS AS THE BASIS FOR A LASTING PEACE

A Look at the Great Wars of the Twentieth Century

Donald Kagan

Peace agreements may be judged from several perspectives—their gentleness or severity, their equity or injustice—but perhaps the most important criteria are their prospects for longevity. Whatever its other qualities, a peace cannot be deemed successful if it soon gives way to another war. The Second World War emerged from flaws in the previous peace and the failure of the victors to alter or defend vigilantly and vigorously the settlement they imposed; the collapse of that peace provided influential lessons for the victors in the resulting war. The First World War ended when the collapse of the Central Powers' armies in the Balkans forced the Germans to seek peace. That was not, however, the picture received by most Germans, who for the most part were unaware that their army had been defeated and was crumbling. No foreign soldier stood on German soil. The socialist chancellor of the newly founded republic greeted returning soldiers with the words, "As you return unconquered from the field of battle, I salute you"; it was generally believed that Germany had voluntarily laid down its arms, and that only when President Woodrow Wilson made a reasonable offer of peace. One German town greeted its returning troops with a banner reading, "Welcome, brave soldiers, your work has been done, God and Wilson will carry it on." The peace the Germans were ultimately required to sign was different from their expectations, and many of them came to believe that Germany had not been defeated but tricked by the enemy and betrayed—even stabbed in the back—by pacifists, Jews, republicans, and socialists at home. This version of history helped bring Hitler to power.

The Second World War richly deserves the title applied to it by Churchill, "the unnecessary war." The victorious nations in the First World War brought it to an end using language of idealistic generosity in which they did not believe,
creating utopian expectations whose inevitable collapse produced bitterness and cynicism and permitted complaints to excuse irresponsible behavior of more than one kind. They vaguely put their hopes for peace in international organizations such as the League of Nations, though no nation abandoned any measure of sovereignty and the League had no armed forces. When the United States failed to ratify the treaty, join the League, or guarantee French security, the entire basis for preserving the peace in the face of a large, bitter, and mainly intact Germany was undermined. The task of preserving the peace fell to France and Britain. Given France’s many weaknesses, that meant chiefly Britain.

British leaders in the years between the wars were powerfully impressed by what they took to be the lessons of the First World War. For them the Great War and the terrible destruction that came from it had been caused not by German ambition abetted by British hesitation but by the prewar arms race, the alliance system, and the willingness of Britain to commit a land army of significant size to a war on the continent. British leaders were easily persuaded by the liberal and radical intellectuals of the day who rejected traditional ideas of power balances and military strength as necessary devices for keeping the peace.

Revisionist historians and publicists convinced many in Britain’s governing class that the Western allies had been at least as responsible as the Germans for the war, that greater understanding, more generosity, and patience were better ways to avoid war than military deterrence. The British accordingly failed to react to the menace created by German ambitions between the wars, even to the extent they had before 1914. Few took the League of Nations seriously. It served chiefly as a form of self-delusion or an excuse for inaction. Whenever tested, it proved the emptiness of the concept of collective security when not led by states having the will and the means to resist aggression.

Pacifism, isolationism, and other forms of wishful thinking were widespread in Britain and contributed to the mood favoring disarmament and concessions. The idea of maintaining peace through strength was not in fashion. The main damage to international security and the prospect of peace was done in the 1920s, when Britain rapidly disarmed and abandoned its continental responsibilities, deliberately disregarding and denying the threat that Germany would inevitably pose. The British were driven by the traditional desire to remain aloof from continental involvements and maintain “the free hand,” by an unwillingness to spend money for arms rather than for increasing social concerns, and by a determination to lower taxes, but most of all by the horrible memories of the last war and the deadly fear of a new one.

The French, much less influenced by the intellectual currents so powerful in Britain and America, were psychologically crippled by the memory of the slaughters of 1914–18, when excessive reliance on the offensive had led to
disaster. French military and political leaders were dominated by that one historical analogy alone. They built the Maginot Line and tried to hide behind it, though it was incomplete and provided an inadequate defense. Their war plans, such as they were, contained no suggestion of taking the offensive first, even against so puny a force as the Germans placed in the Rhineland in 1936.

Had the French and the British between the wars examined their political and strategic situation objectively and realistically, they would have seen that an offensive element was essential to their thoroughly defensive goals of maintaining the peace and security of the new Europe. There was no point in feeling guilty about what they had done to Germany at the peace conference.

The Second World War richly deserves the title applied to it by Churchill, “the unnecessary war.” They were willing to change the terms of the peace, and without compulsion, but what changes would have satisfied Germany? Berlin would consider sufficient only alterations made at the expense of the new nations of Eastern Europe, which had been established on the high principle of national self-determination, as well as the lower one of security for France against a revived and far more powerful Germany. Even a reasonable German nationalist like Gustav Stresemann sought changes unacceptable to the successor states. Adolf Hitler repeated many times, in speeches and in writings, that he wanted the new nations obliterated. Changes like those the Germans wanted were not possible without abandoning both high and low principles. The Western democracies, therefore, had no choice but to defend the status quo against all but minor revisions unless they were prepared to abandon all principle and all security. Had they faced that hard fact, they would have seen that the easiest, cheapest, and safest way to accomplish that end was to keep the Germans effectively disarmed for the foreseeable future. Failing that, they had to keep the Rhineland demilitarized and be prepared to launch an attack through it if the Germans attacked the eastern states. Whatever its faults, such an approach would have been operationally easy and inexpensive; it would have protected the security of Britain, France, and the successor states; and it would have avoided a major war.

No such program was undertaken, because the Western leaders, and many of their people, examined their situation not objectively and realistically but emotionally and hopefully. They were moved by horror of war, fear of its reappearance, and blind hope that refusal to contemplate war and prepare for it, combined with conciliation and generosity toward the beaten foe—never mind the cost to its potential victims—would somehow keep the peace. They paid for their mistake with the most terrible war in history.

The peace that ended the Second World War, however, was entirely different from the one that concluded the first. The leaders of the countries who won the
second conflict learned very different lessons from those that had influenced their predecessors. They insisted on a policy of “unconditional surrender” and held to it, at least in Europe. This time the victorious forces smashed into Germany from east and west, bringing home the reality of defeat to the losers; they were prepared to occupy the enemy’s land until a satisfactory peace had been made. It is ironic that so complete and unquestioned a victory was not concluded by a peace treaty. Even before the end of the war, the split between the Soviet Union and the Western allies began to appear, and the two sides could not agree on a general peace. To deal with immediately unavoidable issues, Russia’s western frontier was moved far into what had been Poland, including part of German East Prussia. In effect, Poland was moved about a hundred miles west, at the expense of Germany, to accommodate the Soviet Union. The Allies agreed that Germany would be divided into occupation zones until the final peace treaty was signed. But it never was signed, and Germany remained divided until the collapse of the Soviet Union almost a half-century later.

A Council of Foreign Ministers was established to draft peace treaties for Germany’s allies. Growing disagreements made the job difficult, and it was not until February 1947 that Italy, Romania, Hungary, Bulgaria, and Finland signed treaties. The Russians, dissatisfied with the treaty that the United States made with Japan in 1951, signed their own agreements with the Japanese in 1956.

By that time Europe was informally but firmly divided, in the context of an informal and uncertain peace. No sooner was the old war over than there seemed to be a threat of a new one between victorious allies. Out of such unpromising beginnings grew a peace that lasted for a half-century without a major war, concluding with the peaceful collapse of one of the competitors in the Cold War and with excellent prospects for peace in the future if the relevant nations learned the proper lessons from this great and surprising success.

The end of the Second World War found Europe in a shambles, potentially a prey to poverty, misery, and the political and military power of the Soviet Union. Only the United States had the economic and military power to restore balance in Europe, but the Americans now began their traditional practice of rapid demobilization, disarmament, and withdrawal from commitments overseas. The threat from the Soviet Union and the onset of the Cold War, however, imposed a recognition and acceptance of reality, a recognition that changed American attitudes and policies. The imposition of communist regimes in Eastern Europe, the menace to the independence of Greece and Turkey, the communist coup in Czechoslovakia, and the blockade of Berlin presented immediate dangers that enabled America’s leaders to persuade their people to undertake the responsibility of continuous engagement in order to create and preserve an international order compatible with their ideals and interests.
The long-range strategy pursued by the United States and its allies was the policy of containment, first set forth by George F. Kennan and gradually adopted in the early years of the Cold War. In this view, America's policy should be guided by traditional, realistic considerations of power: to restore the balance of power in Europe and frustrate Soviet efforts to expand its power and influence, in that way convincing Soviet leaders to change their behavior. This could be accomplished chiefly by economic, political, and psychological means designed to surround the Soviets with strong, confident nations, societies that were able to defend themselves against intimidation of whatever sort. This kind of thinking produced the Marshall Plan to restore the strength, confidence, and independence of Europe, and also the reconstruction of the defeated enemies, Japan and West Germany. Kennan understood the importance of military forces in achieving these ends. "You have no idea," he said, "how much it contributes to the general politeness and pleasantness of diplomacy when you have a little quiet armed force in the background. . . . [Its existence] is probably the most important instrumentality of U.S. foreign policy." But he regarded the Soviet threat as chiefly political, not to be checked by military means alone—a thoroughly reasonable judgment when communist parties were large and threatening in France and Italy, and before the Soviets had an atomic bomb. Kennan's focus was on Western Europe, but his vision of American security was worldwide, with different tactics needed in different parts of the globe.

Kennan also hoped that a successful policy of containment would subject the Soviet empire to internal strains that might dismember it. He even thought that a frustrated Soviet regime might one day crumble internally and be overthrown.

Early in 1950, Paul Nitze replaced Kennan as the head of the State Department's Policy Planning Staff. He and his staff were charged with producing a comprehensive statement of national security policy, the general foundation (that Kennan had never written) of the containment strategy; the result would be the document known as NSC-68. That formulation sought to frustrate Moscow's goal of expanding Soviet power by undermining and overawing other nations. Confronted by steady, determined resistance, Russian leaders might change, live in peace, and behave in tolerable ways. The point was to get the Soviets to accept "the specific and limited conditions requisite to an international environment in which free institutions can flourish, and in which the Russian peoples will have a new chance to work out their destiny." There were also important weaknesses of the Soviet state that might defeat its aggressive designs from within. The problem of succession faced by all dictatorships might cause internal instability; nationalism and unreasonable Soviet demands might lead satellites to break away, as Josip Tito's Yugoslavia had done, leading to the dissolution of the Soviet empire; the flaws of its domestic system might bring it down.
Only firm resistance, however, could bring these weaknesses to the fore. “So long as the Kremlin retains the initiative, so long as it can keep on the offensive unchallenged by clearly superior counterforce—spiritual as well as material—its vulnerabilities are largely inoperative and even concealed by its successes. The Kremlin has not yet been given real reason to fear and be diverted by the rot within its system.”

NSC-68 sought to provide a plan for the needed resistance. Important changes had occurred since 1947. Kennan had regarded the international system as stable; recent events, however, suggested anything but stability, as new territories fell under communist rule and Soviet military power grew. Defending even the strong points that Kennan had thought important called for an increased American military commitment. In the absence of American military power, these nations would be intimidated and lose the confidence on which the theory of containment rested. Beyond that, the two-sided struggle had come into focus, bringing the whole world into the picture. While hoping to pursue containment peacefully, through deterrence, the drafters of NSC-68 recognized that it might be necessary on occasion to fight local wars on the periphery.

Nitze therefore called for a vast increase in America’s military capacity and expenditures to permit resistance by conventional forces, not merely by the menace of the atomic bomb, whose credibility had been undermined by its acquisition by the Soviets. There was considerable opposition to the high cost of the program; some feared that it would ruin the American economy. However, NSC-68 argued that with military expenditures representing only 5 percent of the gross national product and the economy operating well below capacity, the needed funds could be acquired by stimulating the economy through the very program being proposed, without inflation and without damage to domestic well-being. That Nitze’s argument was sound would be shown by the economic boom that lasted from the 1950s until the economic distortions caused by the government’s handling of the Vietnam War. In 1950, however, that prospect was far from clear, and President Harry Truman did not give formal approval of the policy until September. By then the outbreak of the Korean War in June seemed to have confirmed the evaluation presented by NSC-68, which thereafter became the foundation stone of American foreign policy.

The policy of containment laid out in these years was a rare example of a state making a rational evaluation of the problems it faced, the nature of its opponent, and the character of the threat to stability and peace, and then deciding on a reasoned course of action with the sacrifices and commitments needed for
success. It was a realistic and nuanced approach that gave full weight to the importance of ideas, economics, institutions, culture, and the need to adapt to change, at the same time as it acknowledged the need for military power and a manifest willingness to use it when necessary.

The adoption of the fully shaped policy of containment required a sharp break with America’s past. Contrary to its traditions, the United States thus joined in a continuing alliance with nations in Europe and later in other parts of the world. It consciously undertook the chief burden of preserving the peace under conditions tolerable to itself and its allies, gearing its economy for the purpose and adopting military conscription in peacetime. These taxing and extraordinary measures were taken to meet what American leaders took to be a serious and imminent threat, but they were shaped also by their understanding of the origins of the Second World War. These they took to have been the failure of the Western democracies to meet their responsibilities after the First World War, their withdrawal into isolation, and their unwillingness to bear the cost of keeping the peace, which had been the maintenance of the capacity and will to resist detrimental changes in the balance of power caused by dissatisfied states, which used subversion, threats, and military force to achieve their purposes.

For a time, however, weakened and divided by the war in Vietnam and by domestic travails, American leaders wavered, reverting to an earlier model. They seemed to retreat, to seek to win peace through unilateral reduction of the nation’s military power and through attempts at appeasement; the result was détente, culminating in the Jimmy Carter administration. In those years Soviet power and influence around the globe grew to unprecedented levels, in extent, boldness, and intensity. “The 1970s witnessed three massive Soviet airlifts and sealifts to client regimes at war, the deployment in combat of over forty thousand Soviet-armed Cuban troops in Africa, and the outright invasion of a Third World country by the USSR—all phenomena unheard of during the [early years of the] Cold War.”2 By 1982 Soviet combat forces and advisers were to be found in many countries in Asia and Africa: Angola, Cambodia, Iraq, Libya, Mali, Mauritania, Mozambique, the Seychelles, Syria, Vietnam, and North and South Yemen. To these forces could be added military and paramilitary forces from East Germany, Czechoslovakia, and Cuba. Men and equipment from the Soviet Union and its satellites enabled communist forces to gain control of Angola in 1975 and permitted the victory of Haile-Mariam Mengistu’s brutal Ethiopian regime over the Somalis in 1978.3

None of these interventions could be dismissed by the usual explanations offered by Soviet apologists—that is, some version of self-defense—for such places had no inherent strategic importance or even any historical connection with Russia or the Soviet Union. Western analysts, in fact, had a difficult time
understanding what the Soviets were after and why they were after it. A clue may be provided by the comparison between the Soviet Union and Kaiser Wilhelm's Germany. Like imperial Germany, the Soviet Union displayed a combination (characteristic of arriviste powers) of clamoring aggressiveness, great sensitivity to any slight to its pride, and remarkable indifference to the concerns of others. In 1971 Foreign Minister Andrei Gromyko said, in words not too different from those the kaiser had been wont to use, “Today there is no question of significance which can be decided without the Soviet Union or in opposition to it.”

The most striking similarities, however, were in the way the two states, dissatisfied with the distribution of power in the world, restlessly sought to undo the status quo and bring about desired changes by building great military forces and trying to use them for political purposes. A sympathetic scholar described the Soviet Union in these terms in the last year of Carter’s presidency:

To say it simply, the Soviet Union is interested in fomenting conflicts, escalating conflicts, maintaining them at a high level of intensity, and exploiting them, but not in their peaceful solution, especially in the early stages when they are most susceptible of solution. . . .

The Soviet Union is obviously not a “sated power.” Even when measured only from the viewpoint of great-power competition, it is a new, dynamic great power. . . . This situation in itself would render difficult, highly competitive, and unstable any relations with the Soviet Union now and for the foreseeable future. It would certainly preclude realization of those exaggerated hopes of the early [Henry] Kissinger détente construed as a long-range balance of power and agreement of spheres of interest.16

The Soviet Union’s adventurism was surely encouraged by American policy after the Cuban missile crisis. As American military spending decreased, the Soviets did not reciprocate but increased their own expenditures. The signing of the Strategic Arms Limitation Treaty (SALT), in fact, preceded the greatest advance in the growth of Soviet strategic weapons. Secretary of Defense Harold Brown ruefully drew the conclusion that attempts to encourage arms control by inducing emulation of unilateral restraint had failed: “We have found that when we build weapons, they build. When we stop, they nevertheless continue to build.”17 The only plausible explanation of the Soviets’ behavior was that they were seeking to acquire the capacity to force the United States, through intimidation, out of the way of their ambitions. At the same time, the United States allowed its conventional forces to decay. It was only the Soviet invasion of Afghanistan in 1979 that produced a turn away from détente, a return to a policy of containment resting on increased military strength and political will.

Thus, the Carter administration rescinded its proposal for a second SALT agreement, stopped grain shipments and forbade the sale of high technology to
the Soviet Union, withdrew from the Olympic Games to be held in Moscow in 1980, returned to the rhetoric of the early Cold War, and launched a significant increase in military expenditure and preparations. All this came too late to save Carter from defeat in the 1980 elections. He was succeeded by Ronald Reagan, a well known critic of détente and identified with the older policy of containment through strength. The new president had run on a platform calling for rejection of SALT II and for a swift increase in defense spending to gain military preponderance over the Soviet Union.

The Reagan administration moved quickly to keep its promises to increase America’s military strength. Among its officials were the foremost critics of previous efforts at arms control, which seemed to them always to have favored the Soviets without reducing either the number and power of weapons or the danger of war. They now insisted on the removal of all the Soviet nuclear-tipped SS-20 missiles that threatened Europe, promising to introduce American intermediate-range missiles with nuclear warheads (as had been planned by Carter) if the Soviets refused. They rejected arms-limitation negotiations (like SALT I) and proposed arms-reduction talks instead, calling for deep cuts in the number of nuclear warheads on each side. Their critics denounced these proposals as cynical efforts to undermine any serious arms negotiations. Indeed, the Soviets broke off negotiations, worrying those who regarded arms control as essential to the prospects of peace and thus feared the consequences of their interruption. The Soviets launched a vast campaign of intimidation to prevent the installation in Europe of intermediate-range Pershing II and cruise missiles, which could reach the Soviet Union and thus would deter use of the SS-20s. They also instigated a worldwide propaganda effort demanding a nuclear “freeze,” an idea that won considerable support. Reagan responded with a speech denouncing the Soviet Union as an “evil empire” and “the focus of evil in the modern world.” The resort to such language, rarely used since the Truman administration, alarmed those who believed that peace required friendly accommodation and cordial intercourse at all times.

In the “third world,” the Reagan administration took the initiative against Soviet expansion. Employing what came to be called the “Reagan Doctrine,” it sent aid to the opponents of communism—whom the president called “freedom fighters”—in Afghanistan, Angola, Ethiopia, Cambodia, and Nicaragua, and it used direct military force to remove the communist government of Grenada. Finally, Reagan introduced the Strategic Defense Initiative, a plan to build a system that would provide a defense against missile attacks. Critics called the idea
absurd and labeled it "Star Wars." On one hand, they insisted it would not work; on the other, they assumed it would and feared that it would destabilize the nuclear status quo, based on "mutually assured destruction." Like his other actions,

it called into question the President’s seriousness in seeking an end to—or even a significant moderation of—the strategic arms race. . . .

Anyone who listened to the "evil empire" speech or who considered the implications of "Star Wars" might well have concluded that Reagan saw the Soviet-American relationship as an elemental confrontation between virtue and wickedness that would allow neither negotiations nor conciliation in any form; his tone seemed more appropriate to a medieval crusade than to a revival of containment. 13

In 1984, the best-known writer on arms control gloomily wrote:

The Administration’s conduct of the INF [Intermediate-Range Nuclear Force] talks and START [Strategic Arms Reduction Talks] brought about an unprecedented crisis in the already strained quarter-century-old arms-control process. And the crisis in arms control contributed to three others: in the alliance between the U.S. and Western Europe; in the partnership between the executive and the legislative branches of the U.S. government; and in the Soviet-American relationship. Even if it proved temporary, the deadlock in the negotiations lasted long enough to become one of the factors making Ronald Reagan’s stewardship of foreign policy and national security a contentious issue in the 1984 presidential election. 14

Such dark forebodings were unwarranted. The administration held fast to its course and installed the Pershing IIs and cruise missiles in the Nato countries. Strains between the executive and legislative branches were no greater than usual. Reagan was reelected by an overwhelming margin. Nato was strengthened, not weakened. The Reagan Doctrine’s effort to "roll back" Soviet influence . . . [produced] impressive results at minimum cost and risk to the United States." 15 The Soviets returned to the negotiating table for arms control talks that ultimately produced unprecedented reductions.

There is reason to believe, moreover, that the pressure applied on the Soviets by the growth of America’s military strength, particularly the exploitation of its lead in technology to produce advanced weapons, had beneficial effects. Far from crippling arms control and increasing tension, the determination to counter the Soviet SS-20s with equivalent missiles for Nato contributed powerfully to arms reduction. At a conference at Princeton in February 1993, Anatoly Chernyaev, who had been a personal consultant on foreign affairs to Soviet president Mikhail Gorbachev, would make clear the relationship: “The SS-20s were a nightmare for Europe, and the Pershing IIs were, of course, a nightmare for us, because they were a gun aimed directly at—our very head.” This situation in
1987 led Gorbachev to decide on "the first treaty of real disarmament that really reduced the number of nuclear weapons[,] which was[ ] concluded in Washington in December."\textsuperscript{16} Alexander Bessmertnykh, deputy foreign minister under Gorbachev, would later make even clearer the connection between the Americans' firmness and the progress of arms control. Referring to the Soviets' efforts to prevent the installation of intermediate-range missiles into the Nato countries, he was to recall:

I don't remember when we . . . [had ever] raised this kind of campaign. [We] used all methods possible: pressure, persuasion—everything. . . . So the decision was definitely a great disappointment. And there was a certain mood suddenly cast on Moscow that we [had] failed[,] in that . . . the situation had tremendously deteriorated as far as Soviet interests were concerned. But looking back from today's position I think that the fact itself has helped to facilitate, to strongly concentrate on the solutions. If it were not for that [deployment[,] which was negative to us, maybe the developments would have been slower, took many more years. . . . So it kind of pushed the whole process into much higher speed and finally brought us to a solution.\textsuperscript{17}

Gorbachev was driven by other considerations as well. At the same conference Bessmertnykh would report, "As for the Soviet Union, we were already feeling the pressure of the arms race, Gorbachev wanted to go on with the reforms[,] and the continued arms race, and especially the nuclear area, was a tremendous hindrance to the future of those reforms."\textsuperscript{18}

The Reagan administration's approach of seeking to keep the peace through strength fit the circumstances well. Some of its members sought chiefly to hasten the decline of Soviet power, and thereby its capacity to threaten the peace and security of other nations, by wearing it down through competition. The president appears to have sought to achieve security through negotiation after achieving a position strong enough to discourage dangerous ambitions. He was prepared to negotiate arms agreements that truly reduced the threat of nuclear war, so long as they did not give the Soviets an advantage. Confident that the Western way of life would triumph in a competition free of intimidation, he was prepared to seek accommodation. His insistence on doing so from a position of strength, and also the confidence the American people had in him and his approach, made such arrangements possible. As one scholar, by no means uncritical of Reagan, has put it:

Others may have seen in the doctrine of "negotiations from strength" a way of avoiding negotiations altogether, but it now seems clear that the President saw in that approach the means of constructing a domestic political base without which agreements with the Russians would almost certainly have foundered, as indeed many of them did in the 1970s. For unless one can sustain domestic support—and
one does not do that by appearing weak—then it is hardly likely that whatever one has arranged with any adversary will actually come to anything. . . .

It fell to Ronald Reagan to preside over the belated but decisive success of the strategy of containment George F. Kennan had first proposed more than four decades earlier. For what were Gorbachev’s reforms if not the long-delayed “mellowing” of Soviet society that Kennan had said would take place with the passage of time?19

The collapse first of the Soviet empire, then of the Communist Party, and then of the Soviet Union itself was, of course, chiefly an internal phenomenon. Its main cause was certainly the perverse unsuitability of the Soviet economic, social, and political system, which might well have brought it down someday in any case. The role of Gorbachev was also very important. His attempt to reform a system incapable of reform inadvertently but surely hastened the collapse. The peaceful resolution of the Cold War, however, was not inevitable. It would be a mistake to minimize the role played by the United States and its allies in bringing it to a peaceful end. It is not only that the leaders of the Soviet Union might have been less cautious and brought on a war through recklessness. In the 1970s the leaders of the United States came very close to abandoning the strategy that was ultimately to succeed, thereby encouraging the very adventures that might have touched off a war. From the John F. Kennedy administration after the 1962 missile crisis through the 1979 Soviet invasion of Afghanistan, American administrations pursued unilateral disarmament and appeasement under the title of détente, an apparent failure of will that reduced America’s power and prestige and encouraged the Soviet leaders to undertake adventures that might have sparked a conflict. The return after Afghanistan to the original policy of containment and deterrence through superior strength permitted Soviet power to decay in a context of resigned inferiority rather than dangerous adventure.

Without the resistance presented by the containment policy, the Soviet Union might have gained control of most of Europe and acquired resources that would have given it a much longer run. Instead, the West, employing and returning to the vigorous policy of containment described by Paul Nitze and the team that drew up NSC-68, achieved its goals without a major war. It succeeded in frustrating the Soviet Union’s attempts to expand its power by undermining and overawing other nations, which helped persuade its leaders to change their ways and live in peace. It did not seek actively to overthrow the Soviet government or to impoverish or subdue its people. The goal was to get the Soviets to accept “the specific and limited conditions requisite to an international environment in which free institutions can flourish, and in which the Russian peoples will have a new chance to work out their destiny.” There is no more Soviet Union, and that is the place at which the Russian people and their former subjects have arrived.
The collapse of the Soviet Union and the end of the Cold War demonstrate the soundness of the strategy adopted by the United States after the Second World War, that policy's ability to turn a strange and incomplete peace into an unusually successful one. Its leaders resisted the powerful historical, geographical, and political tendencies that had led their predecessors to isolation and irresponsibility after the First World War. Instead, they chose to accept the burden of preserving the peace by constructing an international order that would require the United States to expend money and effort, to make sacrifices and run risks, and to do so indefinitely. They and their successors were to succeed for the following reasons:

- They faced reality and accepted the responsibility and the price—in money, effort, and risk—of preserving the peace that had cost so much to win.
- They had, and were understood to have, no aggressive or expansionist intentions of their own. This won them the trust and cooperation of the other states that wanted to preserve the peace and were fearful of the intentions of the dissatisfied nations.
- Fully aware of the importance of a wide range of means, they nonetheless faced the fact that political, economic, and military power remain the most important weapons for resisting aggression and preserving peace.
- They had, and despite some lapses maintained, the military strength and economic resources to deter attempts to change the balance of power by force or the threat of force.
- In spite, again, of some important lapses, they retained the will to use their resources and the military strength needed to resist aggression and intimidation.
- They were prepared to accept and adjust to changes that came peacefully and did not threaten the safety of the international order.

The United States in the Cold War carried out its responsibility to its own interests and safety, as well as to those of most of the states in the international system, and thereby helped preserve the peace. Oddly enough, the peace of 1945 that was no peace—in the senses that there was no general treaty and that the victorious powers at once fell out and engaged in a dangerous rivalry that many believed could end only in nuclear war—proved to be one of the more successful peace in history, and its success provides a valuable lesson. Peace does not keep itself. The formalities and even the conditions of a peace are less important than the determination of those who wish to preserve it. The remarkable men who worked out a strategy to preserve the unpromising peace that
ended the Second World War, and those who tenaciously held to it in spite of the greatest tests and difficulties, deserve the gratitude of all in the world who seek peace and freedom.

NOTES


2. Ibid., p. 561.


7. Ibid., p. 396.


11. Ibid., p. 304.


13. Ibid.


16. Transcript of "A Retrospective on the End of the Cold War," conference sponsored by the Woodrow Wilson School of Public and International Affairs at Princeton University, Princeton, N.J., second session, p. 22. I am grateful to the sponsors for providing me with transcripts of the meetings.


18. Ibid., vol. 6, p. 2.

THROUGH A GLASS, DARKLY
Some Reflections on the Future of War

Martin van Creveld

The purpose of this article is to offer a brief, late-twentieth-century account of what has happened to war during the last millennium and where it may be going in the near future. To this end, the article is divided into four parts. The first provides a very brief outline of the development of major war from about A.D. 1000 to 1945. The next part explains how that development was affected, not to say interrupted, by the introduction of nuclear weapons. The third part shows how, even as major war began to retreat and wane, the period since 1945 has witnessed the growth of forms of war that are simultaneously old and new and that now threaten to take over many countries all over the planet. Finally, we conclude with observations on the consequences of all this for the future of air forces, navies, armies, and even war itself.

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THE DEVELOPMENT OF WAR, 1000–1945
Looking back, the outstanding characteristic of war since A.D. 1000 or so has been its progressive consolidation. As might be expected, this consolidation took place more or less simultaneously in all possible fields: namely the political, the economic, military, and the technological. The following paragraphs will attempt to provide an outline, however brief, of the main developments in each of those four spheres.

First, the political: In A.D. 1000, Western, Central, and Northern Europe were divided into thousands, if not tens of thousands, of small political organizations. Most of the organizations in question were secular, but others were ecclesiastical. Most were of the type known as
feudal, but some (particularly in the relatively undeveloped north) belonged to an older type that is best characterized as tribal. Still others consisted of urban communities that, resting upon various legal principles, contained within themselves the seeds of future political power. In one extent or another, all had this in common: they possessed the legal right to defend themselves, weapon in hand. This right they exercised by setting up and maintaining armed forces of some kind, be they retainers, feudal warriors, or mercenaries; by manufacturing or purchasing defensive and offensive arms; and, the most visible symbol of all, by building fortified walls, of which they were often inordinately proud.

For reasons beyond the scope of the present article, the number of political units that possessed the right and the ability to wage war tended to decline over the centuries. To be sure, the process was not unilineal, nor did it proceed with equal speed during all periods and in all countries. There were many ups and downs, particularly in France during the Hundred Years’ War, which was as much a civil conflict as it was a war with England. The same was true of England during the so-called Wars of the Roses, and of Germany during the Thirty Years’ War. Nevertheless, the direction of development appears clear in retrospect. Some political organizations developed into big fish and, swallowing others, expanded. Others were fated to serve as bait and, having been swallowed, disappeared. Some acquired the quality known as “sovereignty,” whereas the majority lost it. The number of war-making political units decreased, and the power of the remaining ones increased.

Again for reasons that cannot be explored here, the most important aggregations of power appeared in Europe; indeed, such was the discrepancy in power between European-type states and the political organizations that formed themselves on other continents that by the late nineteenth century the former were capable of taking over most of the remaining world almost as an afterthought.

The process of political consolidation was supported by, and in turn supported, growing economic power. Even during the late Middle Ages, feudal lords, kings, and even emperors were not necessarily much richer than their vassals—one remembers, for instance, how Emperor Maximilian died penniless (during the last days of his life, no inn could be found that would lodge him and his followers) and how Charles V’s election was brought about by the money provided by the Huguenots family. Later, the situation changed. In England, Henry VIII, having changed his religion and confiscated church lands, was able to increase his revenue by a factor of three and thus become the first monarch who was richer than all his lords put together; in France, between 1523 and 1600 the royal income quadrupled. Once the Thirty Years’ War had ended, the economic power first of rulers and then of states vis-à-vis their own subjects continued to
grow. By the second half of the eighteenth century, the personal resources of even the monarchs themselves were being dwarfed by those of the political organizations over which they ruled.7

The industrial revolution that began in England around 1750, the transport revolution that followed it, and the communications revolution that accompanied helped reinforce these trends. Throughout the nineteenth century, the economic power of the state grew and grew; not only that, but the first successful experiments were being made to decouple money itself from bullion and turn it into a state-manufactured commodity.7 By the time World War I broke out, states had become richer and more powerful than ever.

Thanks to new administrative techniques, such as the systematic registration of entire populations and the collection of statistics of every kind, states were also in a position to take away as much as 85 percent of their citizens' wealth for the purpose of making war—a figure never thereafter surpassed, though not infrequently approached.4 To provide a contemporary example, Microsoft's Bill Gates, with a hundred billion dollars at his command, is reputed to be the richest man who ever lived.8 Still, his business empire is dwarfed by the U.S. government, the annual budget of which is on the order of two trillion dollars, and the assets of which, built up over many generations and including everything not owned by private individuals and corporations, are simply impossible to calculate.

Expanding political and economic power provided the foundation for a corresponding growth in military might. During the Middle Ages, hardly any territorial lords were, and not a single city was, in a position to raise more than a few thousand troops. The majority had to content themselves with far fewer; not seldom, the contingents that they sent to their lords' aid numbered in the hundreds or even the mere dozens. By the middle of the sixteenth century, the most important armed forces, now consisting mainly of mercenaries rather than feudal warriors or urban levies, already numbered in the tens of thousands. By the eighteenth century the forces had grown into the low hundreds of thousands. These forces, moreover, consisted of long-service regulars. Consequently, they were now available not only in war but in times of peace as well.

During the years between 1793 and 1815, following the declaration of the levée en masse by the French National Assembly and the subsequent adoption of the principle by other countries as well, the expansion of armed forces continued. After the battle of Waterloo there was a temporary return to professional armies, and growth tended to level off, only to be resumed after 1860 or so. By

Looking back, the outstanding characteristic of war since A.D. 1000 or so has been its progressive consolidation.
this time it was supported by the railways and the telegraphs, the twin instruments that made it possible to mobilize hundreds of thousands of people. It culminated during the period 1914–39, when the main belligerents called up between them over a hundred million men (as against perhaps two million women), put them into uniform, armed them, trained them, and sent them to slaughter each other on battlefields that stretched from Leningrad to El Alamein, and from the North Atlantic to the South Pacific.  

Finally, the enormous growth in the political-economic-military power of the state could never have taken place without corresponding technological progress, both military and civilian. To focus on the main developments only, from A.D. 1000 to 1945, the tank replaced the horse as the most powerful weapon on land. At sea, the size of capital ships grew from perhaps a hundred tons to as much as fifty thousand tons; entire media, notably the deep sea and the air, were invaded for the first time, by means of the submarine and the aircraft, respectively. Many of the most important developments of this era took place during the period of the industrial revolution, specifically during the twentieth century, but others, such as gunpowder, firearms, and the full-rigged sailing man-of-war, came earlier. All made possible vast increases not only in the power of weapons but in speed, range, rates of fire, and accuracy; in turn, they were supported by vast advances in such fields as communication, transportation, and production.

The climax of these developments was reached during the era of the world wars, above all World War II. Seven mighty states, the least of which had a population of approximately forty-five million people, battled each other for six years on end; the Soviet Union alone called up almost thirty-five million men. Servicemen in that conflict were armed with literally hundreds of thousands of heavy war machines—guns, tanks, aircraft—and manned thousands upon thousands of naval vessels of all sorts. Waging “total war” against each other, the states undertook operations so large and so fercocious that in the end, forty to sixty million people were dead, and the best part of a continent lay in ruins. Then, dropping out of a clear sky on 6 August 1945, came the first atomic bomb, changing everything forever.

THE IMPACT OF NUCLEAR WEAPONS

Whereas during the thousand years before 1945, the size of war had grown and grown, after that year the trend reversed itself. From the beginning of history, political organizations going to war against each other could hope to preserve themselves by defeating the enemy and gaining a victory; now, assuming only that the vanquished side retained a handful of deliverable weapons ready for use, the link between victory and self-preservation had been cut. On the contrary, at least the possibility had now to be taken into account that the greater the
triumph gained over an opponent who was in possession of nuclear weapons, the greater the danger to the survival of the victor.\textsuperscript{15}

Appearing as they did at the end of the largest armed conflict ever waged, it was a long time before the stultifying effects of nuclear weapons on future war were realized. During the immediately post-1945 years, only one important author seems to have understood that “the absolute weapons” could never be used;\textsuperscript{14} whether in or out of uniform, the great majority preferred to look for ways in which the weapons could, and if necessary \textit{would}, be used.\textsuperscript{15} As is always the case in human affairs, inertia and “lessons” (in this case, of World War II) played a part. So long as the number of available nuclear weapons remained limited, their power small (compared to what was to come later), and their effects ill understood, it was possible to believe that they would make but little difference. To the people who had gone through the world war and whose job it was to look into the future, the outstanding characteristic of twentieth-century “total” warfare had been the state's ability to mobilize massive resources and use them for creating and deploying equally massive armed forces.\textsuperscript{16} Hence it was not unnatural to assume that similar resources, minus of course those destroyed by the occasional atomic bomb, would continue to be thrown into combat.\textsuperscript{17}

At first, possession of nuclear weapons was confined to one country only, the United States, which used them to end the war against Japan. However, the “atomic secret” could not be kept for very long; in September 1949, five years earlier than the West had expected, the USSR carried out its first test.\textsuperscript{18} There were now two states capable of inflicting “unacceptable damage” on each other, as the phrase went. More and more weapons were produced. The introduction of hydrogen bombs in 1952–53 opened up the vision of unlimited destructive power (the most powerful one built had about three thousand times the destructive force of the fission weapon that had demolished Hiroshima) and made the prospect of nuclear war between the superpowers even more awful. At the end of World War II there had been just two bombs in existence; now the age of nuclear plenty arrived, with more than enough “devices” to “service” any conceivable target.\textsuperscript{19}

To focus on the United States alone, the number of available weapons rose from perhaps less than a hundred in 1950 to some three thousand in 1960, by which time each Hiroshima-sized target on the other side of the Iron Curtain was being targeted by fifty times the explosive power that had destroyed that unfortunate city. There were ten thousand warheads in 1970 and as many as thirty thousand in the early 1980s, when, more for lack of suitable targets than any other reason, the expansion of the arsenal was brought to a halt. The size of the weapons probably ranged from under one kiloton (that is, a thousand tons of TNT, the most powerful conventional explosive) to as much as fifteen megatons (fifteen million tons of TNT); because the introduction of new computers and
other navigation aids as time went on permitted more accurate delivery vehicles to be built. There was a tendency in the United States for the yields of “strategic” warheads to decline, from the megaton range to as little as from fifty to 150 kilotons. With some variations, notably a preference for larger warheads and a greater reliance on land-based delivery vehicles as opposed to air and sea-based ones, these arrangements were duplicated on the other side of the Iron Curtain. At its peak during the mid-eighties, the Soviet arsenal probably counted some twenty thousand warheads and their delivery vehicles.

By basing them on the ground, at sea, and in the air, as well as greatly increasing their numbers, the superpowers could protect the nuclear forces themselves against attack, at any rate enough to deliver the so-called “second strike.” However, the same was not true of industrial, urban, and demographic targets on both sides of the Iron Curtain. During World War II, a defense that relied on radar and combined fighters with antiaircraft artillery had sometimes brought down as many as a quarter of the bombers attacking a target (for example, in the American raid against Schweinfurt in 1943). Should an attack be made with nuclear weapons, though, a defense capable of shooting down even 90 percent of the attacking aircraft would be of no avail. A single bomber getting through would destroy the target just as surely as Hiroshima and Nagasaki had been, to say nothing of the damage that radiation, fallout, and electromagnetic pulse were capable of doing to entire geographic regions.

In the absence of a defense capable of effectively protecting demographic, economic, and industrial targets, nuclear weapons presented policy makers with a dilemma without precedent in history. Obviously, one of the weapons’ most important functions—some would say their only rightful function—was to deter war from breaking out. Not considering deterrence to be part of war, previous military theorists (with Clausewitz at their head) had seldom even bothered to mention it; now, however, it became a central part of “strategy,” and entire libraries were devoted to it. On the other hand, if the weapons and their delivery vehicles were to be capable of deterring an aggressor, they had to be capable of being put to use if necessary. What was more, they had to be employable in what came to be called a “credible” manner—one that would not automatically lead to all-out war and thus to the user’s own annihilation in a nuclear holocaust.

The West, owing to the numerical inferiority of its conventional forces, believed it might be constrained to make “first use” of its nuclear arsenal. The search for an answer to this problem started during the mid-1950s, when it became clear that the Soviet Union would not be left behind in the arms race. The
search went on for the next thirty years, involving very large numbers of analysts in government, the military, and various think tanks. Of the numerous theories they proposed, not a single one ever showed the slightest promise of achieving its goal. Meanwhile, however, a series of acute confrontations culminating in the Cuban missile crisis of October 1962 caused the superpowers to become notably more cautious. There followed such agreements as the Test Ban Treaty (1963), the Nuclear Nonproliferation Treaty (1969), the two Strategic Arms Limitation Treaties of 1972 and 1977, and the cuts in medium-range missiles and warheads that were achieved in the late eighties by President Ronald Reagan and Chairman Mikhail Gorbachev. Needless to say, each agreement was brought about under specific circumstances and reflected the problems of the moment. All, however, reflected the two sides’ willingness to put a cap on the arms race. As well as the growing conviction that should a nuclear war break out, there would be neither winners nor losers.

By the time the Cold War came to an end, the number of nuclear states, originally just one, had reached at least eight. From Argentina and Brazil through Canada, Western and Eastern Europe, all the way to Taiwan, Korea (both North and South), Japan, Australia, and probably New Zealand, several dozen others were prepared to construct bombs quickly; at any rate, they were capable of doing so if they put their minds to it.20 One nation, South Africa, pranced itself on having built nuclear weapons and then dismantled them—although, understandably, both the meaning of “dismantling” and the fate of the dismantled parts remain somewhat obscure.

The entry of new members into the nuclear club was not, of course, favorably received by those who were already in it. Seeking to preserve their monopoly, the latter repeatedly expressed their fears of the dire consequences that would follow any expansion. Their objective was to prove that they themselves were stable and responsible and wanted nothing but peace—and that, whether for ideological, political, cultural, or technical reasons, this was not the case elsewhere.21 Some international safeguards, such as the Nonproliferation Treaty and the London Regime of 1977, were set up to prevent sensitive technology from falling into undesirable hands—which in practice meant those of third-world countries. However, the spread of nuclear technology proved difficult to stop. If, at present, the number of states with nuclear weapons in their arsenals remains limited to eight, on the whole this is due less to a lack of capability than to a lack of will on the part of potential proliferators.

The time since the Soviet Union tested its first atom bomb suggests that the fears of nuclear proliferation proved to be greatly exaggerated. Instead of leading to war, let alone nuclear war, the world’s nuclear arsenals have tended to inhibit military operations. Nor has the effect been limited to nuclear war only. Instead,
the fear of escalation has become stronger with the passage of time, with the result that nuclear countries and their major allies were progressively less able to fight each other directly, seriously, or on any scale. Today, in fact, a strong case could be made that wherever nuclear weapons have appeared or their presence is even strongly suspected, major interstate warfare on any scale is slowly abolishing itself. What is more, as we have noted, any state of any importance is now by definition capable of producing nuclear weapons. Hence, such warfare can only be waged either between or against technologically third and fourth-echelon countries.21

Since 1945 first and second-order military powers have found it increasingly difficult to fight each other, so it is no wonder that, taking a global view, both the size of armed forces and the quantity of weapons at their disposal have declined quite sharply. In 1939 France, Germany, Italy, the USSR, and Japan each possessed ready-to-mobilize forces numbering several million men. The all-time peak came in 1944–45, when the six main belligerents (Italy having dropped out in 1943) between them maintained some forty to forty-five million men under arms. Since then the world’s population has almost tripled, as has the number of states, and international relations have been anything but peaceful; during over forty years of Cold War, one “crisis” followed another. Yet the size of regular forces fielded by the most important states has declined.21

To adduce a more specific example, in 1941 the German invasion of the USSR—the largest single military operation of all time—made use of 144 divisions out of the approximately 209 that the Wehrmacht possessed; the forces later deployed on the Eastern Front by both sides, particularly the Soviets, were even larger. By contrast, since 1945 there has probably not been even one case in which any state has used over twenty full-size divisions on any single campaign, and the numbers are still going nowhere but down. In 1991, a coalition that included three out of five members in the UN Security Council brought some five hundred thousand troops to bear against Iraq; that was only about a third of what Germany used—counting field forces only—to invade France as long ago as 1914. As of the late nineties, the only states that still maintained forces exceeding a million and a half were India and China—and of these, the latter has announced that half a million men are to be sent home. What is more, the forces of both countries consist mainly of low-quality infantry, some of which, armed with World War I rifles, are more suitable for maintaining internal security than for waging serious, external war.

While the decline in the number of regular troops—both regulars and, especially, reservists—has been sharp indeed, the fall in the number of major weapons and weapon systems has been even more precipitous. In 1939, the air forces of each of the leading powers counted their planes in the thousands; during each of the years 1942–45, the United States alone produced seventy-five thousand
In fact, the majority of countries that have gone to war [since 1945]—or against which others have gone to war—have been quite small and relatively unimportant.

Conventional fixed-wing combat aircraft is France. That aside, the carriers (all of them decidedly second rate) owned by all other states combined can be counted on the fingers of one hand. Indeed, it is true to say that with a single major exception, states no longer maintain oceangoing navies at all—and even the exception, the largest navy of all, that of the United States, has been cut by almost half since the late eighties.

In part, this decline in the size of armed forces reflects the escalating cost of modern weapons and weapon systems. A World War II fighter-bomber could be had for approximately fifty thousand dollars. Some of its modern successors, such as the F-15, come at a hundred million dollars apiece, when their maintenance packages (without which they would not be operational) are included; that, even when inflation is taken into account, represents a thousandfold increase. Even this does not mark the limit on what some airborne weapon systems, such as the “stealth” bomber, AWACS, and J-STARS—all of them produced, owned, and operated exclusively by the world’s sole remaining superpower—can cost. It has even been claimed that the reluctance of the U.S. Air Force to use its most recent acquisition, the two-billion-dollar B-2 bomber, against Iraq stemmed from the absence of targets worthy of the risk; should one be shot down or lost by accident, the storm of criticism would be hard to withstand.

Even so, one should not make too much of the price factor. Modern economies are extraordinarily productive. As the histories of both world wars show, they could certainly devote much greater resources to the acquisition of military hardware than they do at present. Thus, the cost of modern weapon systems may appear exorbitant only because the state’s basic security, safeguarded as it is by nuclear weapons and their ever-ready delivery vehicles, no longer appears
sufficiently at risk to justify them. In fact, this is probably the correct interpretation; it is supported by the tendency, which has now been evident for decades, to cut the size of any production program and to stretch the length of any acquisition process almost indefinitely. For example, to develop the Manhattan Project—which besides the application of revolutionary physical science included the construction of the largest industrial plant ever built up to that time—and build the first atomic bombs took less than three years; nonetheless, the designers of present-day conventional weapon systems want us to believe that a new fighter-bomber cannot advance from drawing board to deployment in less than fifteen. The development histories of countless modern weapon systems prove that usually only a fraction of the numbers initially required are produced, and then only after delays of years.27 The reason is that in most cases by the time the system can be fielded, the threat—which would have made rapid mass production necessary and, incidentally, have led to a dramatic drop in per-unit cost—is no longer there.

Yet another explanation for the decline in the quantity of weapons produced and deployed is the very great improvement in quality; this, it is argued, makes yesterday’s large numbers superfluous.28 There is in fact some truth in this argument. Especially since precision guided munitions have replaced ballistic weapons in the form of the older artillery and rockets, the number of rounds necessary to destroy any particular target has dropped very sharply; as the 1991 Gulf War and the 1999 air campaign against Serbia showed, in many applications a one-shot, one-kill capability has been achieved. Thus a single mission flown by a fighter-bomber is said to be capable of inflicting an amount of destruction that once required hundreds, if not thousands, of such sorties.

On the other hand, it should be remembered that for every modern weapon—nuclear ones only excepted—a counter may be, and in most cases has been, designed. However simple or sophisticated two opposing military systems may be, if they are approximately equal in technological terms the struggle between them is likely to be prolonged and result in heavy mutual attrition.29 Expecting as they did more accurate weapons to increase such attrition—as in fact was the case both in the 1973 Arab-Israeli War and the 1982 Falklands War, each in its time the most modern conflict in history—late-twentieth-century states ought logically to have produced and fielded more weapons, not less. The fact that this did not happen almost certainly shows that states were no longer either willing or able to prepare for wars on a scale larger than, say, Vietnam and Afghanistan; even those two conflicts came close to bankrupting the two largest powers, the United States and the USSR respectively.

To look at it in yet another way, during World War II the capitals of four out of seven (five out of eight, if China is included) major belligerents were occupied...
by the enemy, and two more (London and Moscow) were heavily bombed. Only one (Washington, D.C.) escaped destruction of any kind. Since then, no first or second-tier power has seen large-scale military operations waged on its territory; the reasons for this are obvious. In fact, the majority of countries that have gone to war—or against which others have gone to war—have been quite small and relatively unimportant. In this period, Israel fought against the various Arab states; Iran against Iraq; the United States first against North Korea, then against North Vietnam, and then against Iraq; Peru against Ecuador (before the two states decided to resolve their differences by making the disputed territory a national park); and, for two months in 1999, “the most powerful alliance in history” against Serbia. Conversely, when the countries in question have not been unimportant, as in the recent case of India and Pakistan, military operations have invariably been confined to border incidents, never even coming near the capitals.

As the twentieth century approached its end, major interstate wars appeared to be on the retreat. In terms of numbers, they were becoming quite rare; in terms of size, neither the armed forces that they involved, the magnitude of the military operations they witnessed, nor (in almost all cases) the threat that they posed to the belligerents’ existences even approached pre-1945 dimensions. From the Middle East to the Straits of Taiwan, the world remains a dangerous place, and new forms of armed conflict appear to be taking the place of the old. Nevertheless, compared to the situation as it existed even as late as 1939, the change has been momentous.

THE RISE OF INTRASTATE WAR
While the proliferation of nuclear weapons appeared to put an end to major war between major states, war as such not only did not disappear but began to be supplemented by a different kind of armed conflict, one that, as these lines are being written early in 2000, has already to a large extent replaced the old.

Perhaps the best way to approach the problem is this. From the middle of the seventeenth century until 1914, the armed forces of “civilized” governments—primarily those of Europe, but later North American and Japanese ones as well—were more than a match for whatever could be put up against them by either societies of their own kind or others in different parts of the globe. Over time this advantage tended to grow; the greatest discrepancy was probably reached toward the end of the nineteenth and the beginning of the twentieth centuries. Thus, the “scramble for Africa” engaged only a few thousand Europeans; at Omdurman in 1896, a handful of Maxim guns enabled the British to wipe out entire columns of dervishes as if by magic.
During the years 1918–39, the difficulties that the various European powers experienced in trying to hold on to the various colonial empires increased appreciably. In some places, such as the Sahara, it took years and tens of thousands of troops to put an end to uprisings; in others the imperialists were compelled to forge alliances with local elites, which were then co-opted into the lower echelons of government. Frequently the Europeans hid behind a variety of treaties that conceded the appearance of power while preserving the reality; that was the case throughout the Middle East and also, to a growing extent, in India. Still, while the direction of change was quite clear, its extent should not be exaggerated. When World War II broke out in 1939, not a single Asian or African country had yet rid itself of its real masters—in other words, troops that were either white or organized and run by whites.

In the event, perhaps the first thing one could say is that the nature of war had begun to change were the Germans. During the last years of the nineteenth century the Germans had participated in the scramble for Africa, gaining territories and holding them by means that were as ferocious as those employed by anybody else. Having lost their empire in the wake of World War I, during World War II they found renewed occasion to show their prowess in counterinsurgency campaigns. Beginning already in 1941, and steadily more so thereafter, the German occupations of Yugoslavia and Russia in particular were so ruthless as to resemble genocide; yet even these methods did not lead to peace and quiet. On the contrary, the greater the atrocities the occupiers committed, the fiercer, by and large, the resistance they encountered. Some countries and some populations were slower off the mark than others, but resistance spread to virtually every nation that was held by the Germans; by the second half of 1944, much of occupied Europe was ablaze.

The Germans soon discovered that it was precisely the most modern components of their armed forces that were of the least use. Hitherto their tanks, artillery, fighters, and bombers had experienced little difficulty in tearing to pieces the rest of the world’s most advanced armies—including those of three world powers with combined forces considerably larger than their own; however, confronted by small groups of guerrillas who did not constitute armies, did not wear uniforms, did not fight in the open, and tended to melt away into the countryside or surrounding populations, they found themselves almost entirely at a loss. Like other conquerors before them, the Germans learned that for counterinsurgency purposes, almost the only forces that mattered were those that were lightly armed—police, light infantry, mountaineers, special forces, signals units, and above all, intelligence personnel of every kind. All had to operate on foot or travel in light vehicles. Outside the towns they could be reinforced by reconnaissance aircraft, and on such comparatively rare occasions that the
opposition allowed itself to be caught in strength, by small detachments of artillery and tanks. There was no room in these operations for the Wehrmacht’s pride and joy, its armored and mechanized divisions—indeed, since the scale of these operations was usually very small, for any divisions at all.

The discovery made by the Germans—and to a lesser but still significant extent, their Japanese counterparts—during World War II was later shared by virtually every other major armed force. Among the first to encounter guerrilla warfare during the immediate postwar years were the French and the British. In point of ruthlessness, their operations were very far from matching those of the Germans; still, particularly in the case of the French in Indochina and Algeria, they were ruthless enough. The French attempts, supported by every modern weapon they could bring to bear, to regain control of the colonies led to the deaths of hundreds of thousands and the destruction by fire and sword of entire villages, even districts. The British did not go as far; the largest number of native victims in any of their colonial campaigns seems to have stood at ten thousand (in Kenya); nonetheless, they too made routine use of capital punishment, torture, and the uprooting of entire villages. Like the Germans, the British and the French armed forces learned that their most powerful weapons were worthless in such warfare. Against enemies so dispersed and so elusive that they could barely be found, the most powerful weapons of all, nuclear ones, were simply irrelevant.

Thereafter, the Dutch, Belgians, Spanish, and Portuguese were all forced to evacuate their colonies. The Americans, seeking to take the place of the supposedly demoralized French in Vietnam, sent first advisers, then special forces, and from 1965 on, huge conventional forces into that small, backward, and remote country. Eventually the total number of Americans who served there exceeded 2.5 million, and the troops present in Southeast Asia numbered at one point in excess of 550,000. They were backed up by the most powerful military technology available, including heavy bombers, fighter-bombers, aircraft carriers, helicopters (the number of helicopters lost reached 1,500), tanks, artillery, and the most advanced communications system in history. The number of Viet Cong, North Vietnamese, and civilian dead probably stood at between one and two million. All to no avail—after eight years of fighting and fifty-five thousand dead, the Americans gave up.

From Afghanistan (where the Soviet army was broken after eight years of fighting) through Cambodia (where the Vietnamese were forced to retreat) and Sri Lanka (which the Indian army failed to bring to order) to Namibia (granted its independence by South Africa after a long and bitter struggle) to Eritrea (which won its independence against everything that the Ethiopians, supported by the USSR, could do) and to Somalia (evacuated by most United Nations forces after their failure to deal with the local warlords), the story was always the
same. Each time modern (more or less), heavily armed, regular, state-owned forces took on insurgencies, they were defeated.

The above examples could easily be reinforced by many others. They show that from 1945 on, the vast majority of the larger guerrilla and terrorist campaigns in particular have been waged in third-world countries—where people were either trying to form states of their own or where established states had failed to assert monopolies over violence. Still, it would not be true to say that the developed countries have remained immune to terrorism or that the problem does not exist within them. Germany, France, Italy, Spain, Britain, even Japan—where Tokyo in 1995 witnessed two deadly poison-gas attacks—have witnessed terrorist acts on their territories. Often the attacks have been deadly, with dozens, even hundreds, killed or wounded; the number of people killed by, or in operations against, the Irish Republican Army stood at three thousand in early 1996, before the organization wounded two hundred in a single explosion (in Manchester) in May of that year. In these and other countries, the list of people and targets attacked includes prominent politicians, railway stations, railway tracks, buses, hospitals, shopping centers, office blocks, hotels, beer gardens, airports, aircraft in flight, ships, and of course foreign embassies and diplomatic personnel.

Some of the attacks have represented spillovers from struggles that were taking place in other countries. For instance, Kurds fought Turks on German and Swiss territory, and Palestinian guerrillas and Israeli secret agents chased each other in places as remote from the Mideast as northern Norway and Latin America. In other incidents the terrorists, though probably not without foreign connections, have been native born or at least native bred. Good examples are the late German and Italian Red Army Factions, which maintained ties with each other; the IRA, with its links to the United States and Libya; ETA (representing the Basques) in Spain and France; and the various Moslem organizations that have been operating in France and that in early 1996 made Paris look like a fortress. Often they are rooted in the ethnic minorities that, whether legally or not, have entered the countries in question—in France, Germany, and Britain together there are now approximately ten million persons whose faith is Islam.

If only because they have to make a living, terrorist organizations are likely to engage in ancillary criminal activities like drug smuggling, arms trading, and, from the early nineties on, dealing in radioactive materials, such as uranium and plutonium. They have proven repeatedly that they are capable of commanding fierce loyalties; in the Middle East and Turkey, it has not been very difficult to
find even people willing to commit suicide (and go to heaven as their reward). The attacks by foreign-bred terrorists on the World Trade Center in New York in 1993 and by native ones on the federal building in Oklahoma City in 1995 showed that not even the two largest oceans on earth can protect a country against terrorists—with the result that at the Atlanta Olympic Games, security officers outnumbered athletes two to one.

From Washington’s White House to London’s Downing Street, changes have taken place that are obvious even to the casual tourist. Entire city blocks in which presidents and prime ministers live and work, and that until not so long ago were open to pedestrian and vehicular traffic, are being sealed off and turned into fortresses; their protection is entrusted to uniformed and, especially, nonuniformed personnel with every imaginable technological device ready to hand. From Sweden to Israel, leaders who once walked the streets freely and without escorts have long since ceased doing so. They are now seen by the public, if at all, only when they are whisked from one place to another in their curtained, heavily armored limousines; the places they are expected to visit are routinely sealed off and searched, sometimes for days or weeks before the event. It is the kind of security of which a Cesare Borgia might have been proud—and that not long ago was considered necessary only to protect the world’s worst dictators.

So far, those measures seem to have done little to eliminate the problem. What they have done is turn private security into a growth industry par excellence worldwide. Thus, in Germany the years from 1984 to 1996 saw the number of private security firms more than double (from 620 to 1,400), while employment in that field increased by 300 percent. In Britain, the number of security employees rose from ten thousand in 1950 to 250,000 in 1976; since growth has continued thereafter, the number of private guards must have exceeded that of the state’s uniformed, active troops (237,000 in 1995) years ago. (As for developing countries, in many of them the internal threat is such that armed forces have never been able to turn their attention exclusively outward in the first place.) In the United States, as of 1972 the private security industry had almost twice as many employees, and 1.5 times the budget, of all local, state, and federal police forces combined. Its turnover stood at fifty-two million dollars a year and was expected to double by the end of the century. If present trends persist, the day is in sight when American citizens will pay more for private security than for their country’s armed forces; the ratio between the two, which in 1972 stood at 1:7, has since declined to 1:5 and is still going down. The number of employees in the field, about 1,600,000, already exceeds that of uniformed troops.

Clearly, the impact of these developments differs sharply from one place to another, and some places remain much safer than others. Still, the prospect is that the use of armed violence—which since at least Thomas Hobbes has been
recognized as the most important function of the state—will again be shared out among other entities, as it was during the Middle Ages. This is already the subject of science fiction, as well as computer games. Some entities will be territorial but not sovereign—that is, communities larger than states; others, perhaps more numerous, will be neither sovereign nor territorial. Some will operate in the name of political, ideological, religious, or ethnic objectives, others with an eye purely to private gain.

In many so-called “developing countries,” the situation just described already exists and indeed always has. Whether acting on their own—mounting private guards, even setting up entire armies—or by forming agreements with local insurgents, people and corporations are trying to safeguard their property and their operations; it is a situation often known as neocolonialism.

It is true that most citizens of most advanced countries are still able to sleep safely in their beds, but their beds are increasingly likely to be protected by weapons and surrounded by walls. In Britain alone, there are probably some two million illegal firearms. As of 1997 the United States had some two hundred million firearms in circulation, as well as thirty thousand gated communities, which latter number was expected to double in a few years. Not surprisingly, there is already some evidence that the residents of these communities are disengaging from public affairs. Both for them and for their less fortunate countrymen, future life will likely become less secure, or at any rate more obsessed with security, than the life that was provided by the most powerful states of the past.

On the positive side, as we have seen, those same states are much less likely to engage each other in major hostilities—let alone in warfare on a global scale—than was the case until 1945. The bargain that was struck in the seventeenth century, in which the state offered its citizens much-improved day-to-day security in return for their willingness to sacrifice themselves on its behalf if called upon, may be coming to an end. Nor, considering that the number of those who died during the six years of World War II stood at approximately thirty thousand people per day, is its demise necessarily to be lamented.

THE FUTURE

The implications of everything we have said so far are perfectly clear. Confronted with its own supreme product, nuclear weapons, large-scale interstate war as a phenomenon is slowly but surely being squeezed below the historical horizon. To be sure, the process has been neither easy nor smooth. Since 1945, even in regions and between countries where nuclear weapons made their presence felt, there have been plenty of crises and scares. Nor should one overlook the wars between nonnuclear states, which, as in the Middle East and South Asia, went on fighting to their hearts’ content.
By 1970, if not before, it had become clear that any state capable of building modern conventional armed forces—of operating, say, a number of armored divisions or maintaining a flotilla of major warships—would also be capable of developing a nuclear program. Indeed, to judge by the experience of some countries (such as China, India, Pakistan, and, of course, Israel), building nuclear weapons is actually easier than producing some advanced conventional ones. Israel, according to the most recent accounts, appears to have built its first nuclear weapon in 1967. It was a decade later, however, before Israel unveiled its first tank, the Merkava I, and even then 60 percent of its parts had to be imported. From then until the present day, Israel has not produced a first-line fighter aircraft, and its latest missile boats are being built in American shipyards.

While interstate war was going down, intrastate war was going up. Literally entire continents, hundreds of millions if not billions of people, found themselves living under different regimes as a direct result of such wars. Judging by this criterion—which, being political, is the only one that is in some sense “correct”—the difference between the two kinds of war can only be called monumental.

When the last colonies—those of Portugal—went free in 1975, many people felt that an era in warfare had come to an end. Having suffered one defeat after another, the most important armed forces of the “developed” world in particular heaved a sigh of relief; gratefully, they felt that they could return to “ordinary” soldiering, by which they meant preparing for wars against armed organizations similar to themselves on the other side of the Iron Curtain. In fact, however, the hoped-for respite did not materialize. At the time these lines are being written, of the wars in progress, all, without a single exception, are being fought inside states, and none is fought between states on both sides. Though most continue to take place in what used to be called the third world, some are unfolding in the former second one; nor is the so-called first world necessarily immune.

Since any country capable of building even moderately advanced conventional weapons should be capable of building nuclear weapons, and since experience has shown that conventional armed forces and their weapons are only marginally useful in intrastate conflicts, it is no wonder that those weapons and armed forces are being squeezed out. This process does not apply to the same extent around the world, nor are the three principal armed services affected to an equal degree. From one country to another, much depends on geographical situations, perceived threats, strategic plans, etc. In each of the three services, it is probably the heaviest weapons and systems that will be the first to go; according to a recent article in The Economist, during the years since 1990 the global market for them has declined by no less than 44 percent. 
According to the same article, however, “with some 30 small wars constantly on the boil, demand for light weapons has rattled on like a vintage Gatling gun.” Many of them are copies of models first introduced by such leading arms producers as the United States, the USSR, and Israel; they are being produced in such out-of-the-way places as Pakistan and Croatia. They range from hand grenades and submachine guns through mortars and heavy machine guns, all the way to armored cars and personnel carriers. Equally brisk is the trade in devices that are used in antiterrorist operations, such as security fences and metal detectors.

To sum up, the roughly three-hundred-year period in which war was associated primarily with the type of political organization known as the state—first in Europe, and then, with its expansion, in other parts of the globe as well—seems to be coming to an end. If the last fifty years or so provide any guide, future wars will be overwhelmingly of the type known, however inaccurately, as “low intensity.” Both organizationally and in terms of the equipment at their disposal, the armed forces of the world will have to adjust themselves to this situation by changing their doctrine, doing away with much of their heavy equipment and becoming more like the police. In many places that process is already well under way.

NOTES


7. For this story see the author’s The Rise and Decline of the State (Cambridge, U.K.: Cambridge Univ. Press, 1989), chap. 4, sec. 3.


13. The best work about the breaking of the link between victory and survival, and indeed nuclear strategy in general, remains T. C.


27. The latest casualty seems to be the new American F-22 fighter; *Financial Times,* 28 October 1999. As a U.S. Air force chief of staff told this writer in 1993, "The pilots who will fly the F-22 are now in kindergarten."


29. C. F. van Creveld, *Technology and War,* chaps. 9 and 11.

30. Since 1945 the world has witnessed some twenty interstate wars. They include the First Indo-Pakistan War and the first Arab-Israeli War (1947–49), the Korean War (1950–53), the Suez Campaign (1956), the Indian-Chinese War (1962), the Second Indo-Pakistan War (1965), the 1967 Arab-Israeli War, the so-called War of Attrition (1967–70, between Israel and Egypt), the Third Indo-Pakistan War (1971), the 1973 Arab-Israeli War, the 1976–78 war between Ethiopia and Somalia, the Chinese invasion of Vietnam (1978), the Falkland War (1982), the Israeli invasion of Lebanon (1982), the Iran-Iraq War (1980–88), the Persian Gulf War (1991), and the campaign of Nato against Kosovo. Purists might add the "war" that took place between Ecuador and Peru during the early weeks of 1996.

32. See, most recently, K. H. Frieser, *Blitzkrieg: Legende der Westfeldzug 1940* (Munich: R. Oldenburg, 1995), which shows how in 1940 the Germans were inferior to the Allies even in the number and quality of tanks.


35. CNN, 17 July 1996.


44. CNN, 30 September 1997.


ALTERNATIVE FUTURES IN WAR AND CONFLICT

Michael Renner

The vast majority of today’s armed conflicts are not traditional wars between states or coalitions of states, but rather internal conflicts. The fighting is done as often by paramilitary forces, guerrilla groups, ethnic militias, vigilante squads, and even criminal gangs and mercenaries as by regular, uniformed soldiers. Small-arms proliferation is a key phenomenon, a challenge that needs to be addressed urgently.

Out of a total of 108 armed conflicts during 1989–98, as tallied by the Conflict Data Project at the University of Uppsala, Sweden, ninety-two took place exclusively within the boundaries of a single country. Another nine involved intrastate conflict with foreign intervention. Just seven wars during that decade were interstate wars. As one analyst has suggested, “The future is Chechnya.” Indeed, it is the present and the future.

THREATS TO PEACE AND SECURITY

In 1999, three interstate wars were active: the border war pitting Ethiopia against Eritrea, Indian-Pakistani clashes over control of Kashmir, and an on-again, off-again U.S.-British aerial bombing campaign against Iraq. The Chechen, East Timor, and Kosovo conflicts are today hybrid cases: Chechnya had become separate from Russia, a de facto entity after the 1996 war, although it was not internationally recognized as a sovereign state. East Timor, on the other hand, had never been part of Indonesia, even though it had been occupied since 1975.
Kosovo was part of Yugoslavia during the 1999 war and remains so officially, but it is now under international occupation and administration and is severing all ties to Yugoslavia.

Clearly, there will continue to be at least some interstate conflicts. The relationship between India and Pakistan, for example, is again at a low and may well degenerate into large-scale violence. Given that both countries are now nuclear powers, this cannot but be an extremely worrying situation to the rest of the world. But it is less clear that U.S. military policy will in any way be able to affect the outcome and make full-scale war between the two neighbors less likely. Imaginative, committed diplomacy would seem to be a far better approach.

We also cannot exclude the possibility that relations with the Russian Federation will deteriorate to the point of a new cold war (though Russia is now far weaker militarily and economically than during Soviet times). This may call for a policy of military preparedness, but a strong argument can be made for a different approach. Russia having been ignored and even humiliated by the West (in Nato’s expansion, the Kosovo war, etc.) and having suffered through the economic disaster of the past decade (during which Moscow’s policy was heavily influenced by Western advice), it would seem that a Russian strongman—President Vladimir Putin?—would find substantial support for a hardline foreign and military policy. It is high time to rethink U.S. policy toward Russia and to acknowledge that a focus on military deterrence (in the event of significantly deteriorating relations) may be the worst of all options.

It is important to realize that the violence of many contemporary armed struggles is less an expression of clear political or military objectives (such as invading a neighboring country or annexing territory) than of the chaos emanating from state failure. An underlying factor is the inability of states to create or maintain conditions conducive to the welfare of their populations. More than 40 percent of the states in the bottom half of the Human Development Index in 1998 (published in the UN Development Program’s human development report) experienced war on their territories sometime during the previous decade.²

What this suggests is that we are dealing far less than heretofore with traditional scenarios, in which threats are readily identifiable; the nature of conflicts is increasingly diffuse and complex. There is little point in trying to predict a successor to the “Soviet threat” (in the sense of an all-encompassing, bipolar-type struggle), because it is highly unlikely that one will materialize, notwithstanding all the conjecture about China. An American military response or deterrence posture may be close to irrelevant for most conflicts we may expect.

So why should the United States be concerned? Internal conflicts are more likely to trigger humanitarian concerns than security issues. But intrastate fighting can spill over borders to destabilize a larger region (as in Central Africa at
present); it can draw outside intervention, which in turn may lead to confrontations among larger powers; it can cause large-scale refugee flows, with debilitating political consequences in host countries; it can lead frustrated partisans to resort to desperate, terrorist measures to gain the attention of a neglectful world or to seek revenge against outside powers that are supporting, or are seen to be supporting, an opposing side.

Professor Paul Kennedy and others have referred to “pivotal” states—those that warrant close attention by the United States, where the American stake in sociopolitical stability is high but the risks of political collapse are high as well.\(^1\) This focus may seem to make eminent sense; there is a need to prioritize, and some conflicts affect the United States (or the world as a whole) more than others do. The difficulty is that what starts out as a limited conflict in a “noncritical” region can snowball into a major problem. The conflict in Rwanda serves as an instructive example. Even when genocidal violence took place in Rwanda in 1994, the Clinton administration preferred not to get involved in the conflict; it blocked proposals to reinforce UN peacekeepers in the country to stop the killings, and it took pains to avoid the term “genocide” in reference to the situation. The rationale was that Rwanda was simply not important enough to the United States. However, this judgment turned out to be a major mistake; the Rwanda conflict subsequently spilled over into the former Zaire, and it continues to fester. Several neighboring countries, including Angola, Namibia, Zimbabwe, Rwanda, and Uganda, have decided to intervene in the spillover civil war. It is far from clear at this time what the long-term consequences of that conflict will be for the region. This example suggests that it may be a wiser policy to focus on human rights and human well-being than on supposed “strategic” interests in deciding which conflicts merit U.S. attention.

The “health” of societies—their economic well-being, their ability to assure a reasonable degree of social justice and equity, their ability to preserve their natural environments—is in fact ultimately the most important issue, and no amount of defense spending and military sophistication can repair its loss. In fact, one can argue that too great an emphasis on military means may absorb the very resources that are needed to guarantee a healthy society.

A multitude of pressures and instabilities threaten to shred the social fabric of many societies today, particularly those in the developing world. A toxic brew of growing disparities in wealth, persistent poverty, increasing unemployment and job insecurity, population growth, and environmental degradation is provoking ever more social discontent and polarization.\(^6\)

Governments that show themselves unable or unwilling to deal with these accelerating pressures stand to lose legitimacy. When they do, people turn to the more immediate group or community to which they belong in search of
support, identity, and security. But individual groups in such situations often feel they must compete directly against each other for scarce resources and services; governments may even encourage such splits, in classic divide-and-rule fashion. All too often, the end result is a polarization and splintering of societies, literally inviting violent responses to unresolved problems. Reacting to such problems, central governments may seek to impose authoritarian solutions. Whatever they do, the society may unravel and collapse.

**Social and Economic Inequities**

In recent decades, the gap between rich and poor has grown dramatically. According to statistics compiled by the UN Development Program, in 1960 those in the top 20 percent worldwide had thirty times the income of those in the bottom 20 percent; by the beginning of the 1990s, they had almost sixty times as much, and in 1997, seventy-four times. This gaping disparity is replicated within individual countries, more severely in some than in others. In the context of globalization, the inequitable distribution of economic opportunities and social burdens is becoming more pronounced. Sharp economic inequities are producing cleavages and discrepancies that may lead to social conflict and perhaps even collapse.

The lack of adequate numbers of jobs in countries with burgeoning youthful populations is creating widespread social discontent. Worldwide, an estimated sixty million people between the ages of fifteen and twenty-four already cannot find work. The pressure on labor markets is bound to intensify with strong population growth. The phenomenon of legions of young adults and adolescents with uncertain and often poor prospects for establishing a livelihood may be one of the greatest threats to political stability anywhere—triggering criminal behavior, feeding discontent that can burst open in street rioting, or fomenting political extremism.

China, for instance, is struggling to provide sufficient employment for hundreds of millions of its people as it prunes state-owned industries and slashes their workforces, and as the economic gulf between coastal areas and the interior widens. An estimated one to three hundred million itinerant Chinese laborers are drifting from rural to urban areas, and in and out of towns. It is very much in question whether these people will be able to find secure and adequate employment. The lack of jobs may have fatal implications for social stability in China and may well make internal conflict more likely in the future. Critical decisions await China as it moves ahead with a combination of economic liberalization and political repression. This is a more realistic danger than external Chinese aggression.
Unemployment and severe economic hardship and uncertainty nourish extremist politics and violence. Although the particular circumstances of each case need careful analysis and can generate vastly different outcomes, a few additional examples underline the potential dangers. One is Kosovo, where the Kosovo Liberation Army had little difficulty enlisting fighters from among a population that is predominantly young and unemployed. In Rwanda, extremist Hutu leaders recruited primarily uneducated, unemployed youths—individuals who had little hope of gainful employment and a steady livelihood—into militias that carried out genocidal violence in 1994 against ethnic Tutsi, whom the leaders depicted as responsible for the country’s problems. Lack of jobs and dim economic prospects have also played an important role in fueling the savage conflict in Algeria. In East Timor, the violent gangs armed by the Indonesian military to thwart the territory’s move toward independence were drawn in part from among the ranks of the unemployed. While not every unemployed person of today will become tomorrow’s extremist; shock trooper, people’s willingness to tolerate and perpetrate violence will be far higher if they have little hope for the future.

Environmental Stress
In this connection, environmental conditions are increasingly critical. The depletion of water resources, excessive exploitation of fisheries, degradation of arable land, and deforestation, among other problems, not only affect human health and well-being and imperil the habitability of some regions but play an important role, as is increasingly understood, in generating or exacerbating conflicts.  

Many natural systems—such as croplands, forests, and freshwater sources—show signs of increasing stress. If climate change becomes a full-blown reality, it will compound present environmental challenges. Rising sea levels, shifting vegetation zones, and changing precipitation patterns are among the key impacts of climate change. If heavily populated coastal areas are inundated and crop harvests in some regions are decimated by more frequent droughts, to cite just two possible consequences, there could be dramatic increases in food insecurity. A flood of environmental refugees—displaced residents of engulfed coastal areas and farmers compelled to abandon their parched lands—may find it difficult to find new livelihoods in already crowded cities and may even clash with host communities. It is obviously impossible to predict either the dynamics of such a scenario or how well societies will cope, but in all likelihood, such changes would translate into a sharp increase in human conflict.

Countries whose economies are heavily geared toward agriculture, or other sectors that directly depend on the health of the natural-resource base, are most immediately confronted by environmental problems. The needs and interests of
contending groups tied closely to the land—farmers, nomads, ranchers, and resource extractors—often are at odds and remain unreconciled. Conflicts over scarce land and water abound. As cases from Mexico, Nigeria, Sudan, Papua New Guinea, India, and other countries show, poorer communities, minority groups, and indigenous peoples typically bear the brunt of adverse environmental change, particularly that triggered by oil drilling, mining, logging, and large-scale dam and irrigation projects.

Depending on how environmental transformation translates into the social, economic, and political realms, environmental decline could grow into an increasingly significant factor in violent disputes in the coming decades. What matters most in this regard is not necessarily the hardships of environmental degradation per se but the fact that the harmful impacts will be felt unevenly by different social strata, communities, and countries. This unevenness may well reinforce social and economic inequities and deepen patterns of polarization in society. For instance, the Sardar-Sarovar dam and irrigation project in India’s Narmada Valley will primarily benefit a small number of wealthy farmers, while the burdens—flooding of villages and arable land, decimation of local fisheries, and loss of ancestral land and cultural monuments—will fall on hundreds of thousands of poorer peasants.

Because it is the weakest and poorest countries that most readily succumb to environmental challenges, it is tempting to conclude that only marginal areas around the globe will be affected, not the regions of “strategic” importance to the United States. This is likely to be a miscalculation. Let us again look at China. Eleven of China’s interior provinces, collectively home to a third of the country’s population, are faced with severe water shortages and soil erosion. Soil degradation and outright loss of cropland are putting increasing strain on China’s agriculture. If China were to become a major grain importer in coming years and decades, it surely would drive up world food prices and affect other grain importers, many of which might not be able to afford a higher import bill. China is also facing rising internal disputes over water sharing. Large-scale river-diversion projects could trigger major interprovincial conflict and pose challenges to the central government. For instance, a planned diversion of the Huang He (Yellow River) would benefit Shanxi Province (which is struggling with chronic and severe water shortages) but potentially cripple northern Henan and northwestern Shandong Provinces during the dry season.

On the whole, environmentally induced conflict appears to be far more likely within than between nations (although the repercussions of internal conflicts
can, of course, be felt beyond the borders of the affected country. Water is one of the issues around which substantial transboundary conflicts exist—for example, among the countries sharing the waters of the Nile (Egypt, Sudan, Ethiopia), the Euphrates (Turkey, Syria, Iraq), the Jordan and Litani (Israel, Jordan, Syria), the Ganges (India, Bangladesh—between whom at least temporary agreement has been reached), the Mekong (Cambodia, Laos, Thailand, Vietnam, China), and the West Bank aquifers (Israel and the Palestinians).

There are three ways in which environmental breakdown may be of concern to the United States. One regards the political repercussions of environmental change: conflict that is at least partly fueled by environmental change and may destabilize a given country or region. This encompasses scenarios that do not differ substantially from the kinds of conflicts that we are familiar with today.

The second concerns people who have been referred to as "environmental refugees." Water scarcity, soil erosion, desertification, and other environmental calamities are now contributing to the uprooting of large numbers, though reliable (or even simply uncontroversial) estimates do not exist. The influx of people into another region or country can impose a considerable burden in terms of increased competition for land, water, jobs, communal facilities, and social services. This is especially the case if the host country’s economy is already stagnant or in decline, or if the influx is sudden and massive. Although population movements do not inevitably cause conflict, the potential for trouble is present. This is particularly the case where political leaders or challengers are eager to stir up xenophobic sentiments.

The third concerns the impact of environmental change itself. The gathering threat of climate change is probably the best illustration. If extensive climate change becomes manifest, no individual country or society—no matter how rich or militarily powerful—will be able to shield itself from its consequences. Because China relies heavily on coal (the most carbon intensive of the fossil fuels) to sustain economic growth, its share of worldwide CO2 emissions has risen dramatically. As climate change is transformed into a reality rather than a prediction, the pushing and shoving among nations over who is to blame for the calamity will rise to a fever pitch. Already, commentary in the United States is indulging in finger-pointing, singling out China as a culprit. Clearly, if China does not move away from a coal-dominated energy system, it will aggravate the likelihood that climate change will wreak major havoc. But it is the United States and other Western nations that have, over the course of the last century, pumped the bulk of carbon into the atmosphere and who are therefore, in a sense, primarily responsible. It is possible that in a warming world, accusations and counteraccusations will contribute to a rise in political tensions.
So the questions arise: What policies are required for the security of the environment? How do we influence nations who are damaging the world environment? What must be deterred? The last question may point to a dead end, however; no conceivable military strategies are appropriate for addressing environmental threats. Entire economic structures cannot be changed at gunpoint.

Although a whole new field of inquiry—"environmental security"—has emerged, it is worth stressing that environmental change is hardly ever consciously employed as a "weapon" by one state against another. The burning of the Kuwaiti oil fields by Iraq and the defoliation of Vietnamese jungles by the United States are examples of environmental destruction for military or other hostile purposes, but the preponderance of environmental change arises as the result of the ordinary working of economics, day after day. Just as the Chinese are not burning coal in their power plants in order to inundate coastal areas of the United States, Americans are not driving their cars in order to cause more powerful storm surges in India or more severe droughts in Africa. Therefore, and even though environmental change can become a "security threat," military responses are inappropriate.

**Globalization**

What prospects does globalization hold for matters of peace and security? As national economies become more and more integrated and as economic interests coincide less and less with national boundaries, will there still be a major role for national armed forces? It is tempting to conclude that increasing interdependence will of necessity lead to new cooperation and that armed forces will become superfluous. This expectation is reinforced by the dawning recognition that individual nations are unable to cope on their own with such global challenges as climate change and other transboundary forms of environmental degradation.

Can economic integration, then, be an antidote to violent conflict? This seems to be a premise of many advocates of economic globalization. In fact, globalization’s challenge to traditional notions of territorial-based security may over time make military-centered concepts of security less relevant—but such an outcome is by no means guaranteed. There is, indeed, danger in expecting that the erosion of economic borders will inevitably lead to political integration far beyond national boundaries and to the melting away of remaining enmities. Economic integration may be an effective antidote to warfare between industrially advanced states that are close to the commanding heights of the world economic system (and are therefore most likely to benefit from it), but far less so for those who are at its periphery.

Because it deeply affects the prospects for social and economic development, the process of globalization too carries the potential for tension and conflict.
The benefits and burdens of globalization are distributed in spectacularly uneven fashion, heightening disparities between and within nations. Because it entails severe dislocation and social pain, and because it is experienced as a challenge to local control and democratic accountability, economic globalization tears at the very fabric of many societies.

**POLICY CHALLENGES AND OPTIONS**

The Cold War may be over, but it has left a deadly legacy. East-West geopolitics ascribed strategic value to certain parts of the developing world, mostly for reasons of resource endowment or geographic location; the industrialized countries accordingly intervened in a variety of ways, arming their protégés to the teeth. Once this confrontation ended, the significance of many once-indispensable allies vanished. "Hot" Cold War battlegrounds like Afghanistan, the Horn of Africa, or Central America, abruptly abandoned, reverted to backwater status.

What remains are the weapons that were so liberally spread around the planet by both superpowers and their allies. Together with pervasive cultures of violence and stunted political systems, the surfeit of weapons makes for fertile ground for violent and authoritarian responses to unresolved problems—including the social and environmental challenges discussed earlier. Of particular concern are small arms—weapons that are cheap, require no organizational or training infrastructures for maintenance and operation, can be used even by children, can be easily transported and smuggled, and are rugged enough to have a long life. No precise figures exist, but it is believed that there are currently some five hundred million small arms in worldwide circulation, including more than a hundred million assault rifles."

Michael Klare, director of the Five College Program in Peace and World Security Studies in Amherst, Massachusetts, argues that “the abundance of arms at every level of society means that any increase in intercommunal tensions and hostility will entail an increased likelihood of armed violence and bloodshed.” The dispersal of arms to private armies and militias, insurgent groups, criminal organizations, and other nonstate actors feeds in many societies a cycle of political, communal, and criminal violence that in turn causes even greater demand for guns.

**Nonproliferation and the Universality of Disarmament Norms**

All this undercuts a frequent assumption of contemporary security analysis in this country: that the possession of unrivaled weapons technology and power-projection capabilities is a key advantage for the United States, and by extension that if there is no U.S. military response to a particular crisis or development, there will be no response at all. But in the post–Cold War era, military-technological superiority is of far less utility than when the United
States was still locked in competition with the Soviet Union. Given the enormous proliferation of weaponry of almost all kinds and calibers, and the strong likelihood that any given advanced arms technology will eventually spread to other countries, a strong argument can be made that the United States has a key interest in establishing internationally accepted and effective norms and standards to curb the production, possession, and trade of arms; there are few such restraints today.

It has been U.S. policy for several years to pursue “nonproliferation.” This approach is designed to deny access to advanced weapons and military technology to any state except the United States and a few close allies—a glorified military apartheid system. While nobody can argue that a deliberate proliferation policy would make the world any safer, it is unlikely that a narrow nonproliferation strategy will prove workable. No country that felt itself under a severe threat would acquiesce to it. Any realistic policy of armament restraint would have to accept the principle of universality and apply to all states equally. That would seem, from the U.S. viewpoint, tantamount to adopting a policy detrimental to one’s interests. However, in today’s world, one’s own security is typically enhanced by making others feel secure as well.

There are additional nontraditional, multilateral security policies that may yield greater benefits than unilateral ones. They include cooperative international policies, improved early conflict recognition and conflict prevention, and strengthened international institutions and norms. Unfortunately, such goals have in recent years been neglected, even undermined.

It is interesting, however, to contrast current U.S. policy with its stance in the aftermath of World War II. Back then, the United States played a central role in creating the United Nations and other multilateral institutions. Today, when at last there is no superpower competition to thwart the effectiveness of the UN, the United States has abandoned multilateralism and is instead pursuing a policy of exceptionalism. That is, the United States would like to see other powers respect existing rules, norms, and constraints but does not wish to be bound by them itself. In fact, the other major powers do not either, failing, like the United States, to see the value of creating multilateral institutions that support their interests without draining their resources. They, like this country, frequently see international treaties and norms as eroding national power. A different view would suggest that though the United States, by strengthening rules and norms that make the use of force by any state less likely, might “lose” the ability to

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exercise its military power in unrestrained fashion, it would also lose the need to do so.

Exceptionalism, however, has led the administration and Congress to block progress on emerging international norms. When the majority of nations decided to ban antipersonnel land mines, the Clinton administration refused to sign; when the United Nations drafted an agreement to outlaw the recruiting by armies of children age seventeen or younger, the United States objected; when the statute for a new international Criminal Court was drawn up in Rome in 1998, the U.S. delegation was one of a handful that voted against it.\(^\text{10}\) Meanwhile, Congress has brought the United Nations to the brink of financial insolvency by withholding legally owed contributions. Face-to-face discussions between representatives of the UN Security Council and the Congress hold some promise that the issue of U.S. financial arrears will be resolved, but a true breakthrough has yet to occur.

**Institution Building and Conflict Prevention**

It is imperative that the world community put far greater emphasis on preventing violent conflict—not only because conflicts are hard to resolve once they start (witness Bosnia and Kosovo and the major, long-term U.S. commitment required by these interventions) but also because the United States and other powers will naturally be selective about which conflicts they get involved in, hence allowing savage tragedies like Rwanda, Angola, or Sudan to go on indefinitely.

Much could be accomplished by building a conflict-early-warning network, establishing permanent dispute-arbitration centers in every region of the world, putting more weight behind preventive diplomacy, and establishing a corps of skilled and experienced people to serve as roving mediators on behalf of the international community.\(^\text{10}\) Conflict prevention is not an exact science, to be sure; it more resembles a trial-and-error process. On one hand, there will be cases when warnings of impending violence turn out to be false alarms. On the other hand, though, the international community would do well to build some redundancy into the conflict-prevention apparatus, so that a variety of efforts can be launched to ward off mass violence. Preventing the eruption of disputes into full-scale hostilities is by no means an easy task, yet its difficulties pale beside those of ending fighting once large-scale bloodshed has occurred.

Of course, conflict prevention through mediation will not always work; additional tools are needed. In particular, peacekeeping missions will need to be re-fashioned so as to fulfill the true meaning of the word "peacekeeping," instead of being last-minute fire brigades. In the course of the last few years, we have come to associate peacekeeping with futility—too few people equipped too poorly and dispatched too late, unable to keep a peace that scarcely exists. What is
needed is a well-trained, permanent force maintained under UN auspices for preventive deployments. It would be dispatched in response to clear signs of imminent violence, either along national borders or even within countries. Such an intervention would not be an end in itself but rather an attempt to provide space for mediation efforts.

Currently, U.S. policy is to constrict the UN’s capability to engage in successful peacekeeping and to limit the involvement of American personnel in United Nations missions. It is time to chart a new course, to signal to the rest of the world that this nation is serious about multilateral peacekeeping and conflict prevention.

NOTES


6. The literature on the links between environment and conflict has grown rapidly in recent years. See, for instance, the author’s Fighting for Survival; Thomas Homer-Dixon and Jessica Blitt, eds., Environmental Violence: Links among Environment, Population, and Security (Lanham, Md.: Rowman and Littlefield, 1998); Donald Kennedy et al., Environmental Quality and Regional Conflict: A Report to the Carnegie Commission on Preventing Deadly Conflict (Washington, D.C.: 1998); and Alexander Caruis and Kurt M. Lietzmann, eds., Environmental Change and Security (Berlin: Springer, 1999). See also the occasional reports published by the Environmental Change and Security Project of the Woodrow Wilson Center in Washington, D.C.

7. See the Worldwatch Institute’s two annual publications, State of the World and Vital Signs (both published by W. W. Norton in New York), for example.


COMPLEX CIVIL-MILITARY OPERATIONS
A U.S. Military-centric Perspective

John A. Gentry

U.S. military forces long have conducted operations having objectives other than, or in addition to, combat. In 1996, the Congressional Research Service counted over 250 foreign deployments of U.S. troops since 1798 but only five declared wars. The United States sent a significant number of military personnel to Somalia in 1992–93 to feed starving people, then in 1993–94 to help “build the nation” of Somalia. The 1994 deployment to Haiti ostensibly was undertaken to “restore democracy” by returning President Jean-Baptiste Aristide to power. Operations in Bosnia and Herzegovina since 1995 have aimed at keeping the peace and returning Bosnia to its momentary status as a unified, multiethnic country. The 1999 deployment to Kosovo had a similarly lofty moral objective.

The military aspects of such complex national endeavors have been labeled, somewhat inadequately, as “low-intensity conflicts” or “military operations other than war.” Such operations have significant civil-military components. That is, in these operations armed forces have objectives or employ means that directly involve local civilians and civil institutions, including governments. In such cases American military personnel typically work closely with civilian employees of other U.S. government agencies, international organizations (including foreign-aid agencies of other governments and components of the United Nations), and nongovernmental organizations. Virtually by definition, the participation of such a variety of groups makes these operations complex.

The U.S. armed forces collectively and many members of the American electorate are clearly uncomfortable with some of these roles. This discomfort stems partly from such unpleasant transformations as the descent of
“nation building” in Somalia into the dragging of dead American soldiers through the streets of Mogadishu, and of the reconstitution of Bosnia-Herzegovina into a complicated, seemingly open-ended mission with little prospect of success. Many Americans, including military personnel, are uneasy (and ignorant) about these undertakings, question whether they are indeed military missions, are insecure about the ability of the military to perform them, and worry that such apparently nonmilitary missions detract from real military tasks. There is good reason for some of the concern. U.S. military forces have not performed well in such operations in recent years. The root cause of the problem is a mismatch between the demands of such operations—U.S. national objectives and the situations themselves—and the organization, doctrine, and even culture of the U.S. units assigned to perform them. The purpose of this paper is to identify some of the strengths and limitations of U.S. forces in complex civil-military operations and to suggest ways to improve their performance.

Poor understanding of the essential elements of civil-military operations—compounded by lack of a common terminology—result in inability to relate them to overall national objectives. Even within the special-operations community, including its civil-affairs personnel, there is debate about the meaning of such basic terms as “civil affairs” and “civil-military operations.” This confusion is exacerbated when concepts are communicated across institutional and cultural lines. Civilian and foreign military organizations differ from the U.S. military, and from each other, in cultural norms and in perceptions and expectations of, and goals for, relationships between military units and civil institutions—which, broadly defined, include religious, social, and labor organizations. Recent descriptions of humanitarian-relief and peacekeeping missions have inadvertently made matters worse by using different terms for similar concepts and inappropriately generalizing from specific operations.

Many commentators have argued that the American military of the Cold War era, which the United States largely retains, is not well suited to complex civil-military (or “complex contingency”) operations. Proposals to develop new capabilities and doctrine, however, while laudable, usually focus on tactical operations without examining civil-military operations in a larger political context. They generally fall short in at least one of two key areas: they do not address the profound cultural or psychological aversion that “warfighters” have to peacekeeping and civil-military operations generally; or they do not propose institutional changes, including structural changes and altered incentives, that would enable the U.S. military to plan and execute civil-military operations consistently well.

The U.S. military and the civil agencies of the governments of the international community with which the military regularly works need badly a
common framework for civil-military operations. They need also concepts and institutions that facilitate planning, the execution of missions, communications, and assessments of results. Such a shared understanding would help the American military in the civil aspects of all its operations, including conventional high-intensity wars, in which civil aspects rightly receive comparatively modest attention. Such a framework would have helped us to conduct better the important civil aspects of the war in Vietnam. It would also be helpful if the Defense Department ever has to grapple with domestic "consequence management" in the wake of large-scale attacks on civilians within the United States.

The framework presented in this article is U.S. military-centric; that is, it focuses on civil-military operations from the perspective of the American armed forces. The process could be reoriented easily, however, to other institutions, including international civil agencies or even the "targets" of peacekeeping or peace enforcement. The examples used here come from peacekeeping operations, because those undertakings are conceptually and operationally complex. Dealings with civilians during conventional combat in sparsely settled areas are comparatively simple in concept, if not execution; they also fall within this construct. Domestic civil-military operations, however, present unique political and constitutional issues (which are beyond the scope of this article).

Civil-military operations contain four general stages, as well as feedback mechanisms that work (or fail) during the conduct of each operation and that (ideally) ensure that the lessons learned in each operation influence decisions about others. The four stages are problem identification, mission determination, planning and execution, and the processes of measurement of effectiveness and of learning.

PROBLEM IDENTIFICATION
The world is a complicated place. Some events are small and isolated, some reflect massive civilizational changes yet move slowly, while others proceed rapidly and with great and immediate consequences. Intelligence agencies, diplomatic services, academics, and journalists watch these events with varying degrees of intensity. Governments typically track only a small part of the global human situation, generally caring little about the rest.

Sometimes situations change in ways that alter observers' perceptions and lead governments, international organizations, or nongovernmental organizations to assess that they have become problems—challenges requiring action and, one hopes, susceptible to solution. Usually a tangible event or set of events triggers that reassessment—war, political instability, famine, and so on. However much damage or death has occurred in a given case, however, governments and organizations conclude that a problem has arisen only if they determine
that the course of a situation is “bad” for some reason related to itself. Thus, a
government may conclude that events so threaten its political or economic in-
terests, or so engage its ideological or moral sensibilities, as to oblige it to act.
The latter factor is particularly strong in natural disasters or apparent atrocities
against noncombatants—and it has become a major component of American
foreign policy. Governments also justify interventions in moral terms to mask
geopolitical, financial, or domestic political issues, like stopping an influx of un-
wanted refugees.” Relatedly, the “CNN effect” produced by televised images of
suffering has generated public demands for action; it has been a key definer es-
pecially of humanitarian problems. (Television, it must be said, depicts only
poorly the political complexities that produce such suffering, leading to inap-
propriately narrow or even erroneous problem identification.)

Different observers, depending upon their views and interests, may perceive
different problems in the same set of events. The reasons a government declares
a situation a “problem” drive its efforts to fix it—and those reasons may have lit-
tle to do with what is important to other agencies of the international com-

munty, the people experiencing the problem, or the military forces called upon
deal with it. Those reasons will produce limitations upon intervening forces,
with respect to maximum costs (including military lives) and allowable conduct
(thus “rules of engagement”).

MISSION DETERMINATION

Determination that a serious problem exists is a prerequisite to action to remedy
or ameliorate it. Governments may choose after all not to act, because resources
are scarce or political considerations preclude commitment, or they may con-
tent themselves with criticizing or offering unsolicited advice. Only a decision
to spend real resources leads to commitment of military forces; because mili-
tary forces are valuable assets and have special status as embodiments of na-
tional prestige, a decision to use the military signifies a strong national
commitment to problem resolution. Such a decision may take time and be-
come the subject of internal political conflict. For this reason, military force is
likely to be committed only well after other institutions, particularly United
Nations agencies and nongovernmental organizations, have begun to act. The U.S.
military therefore typically begins to focus on a civil-military operation later
than do the international agencies with which it will work; that is a major disad-
vantge. To make matters worse, the U.S. military is so complex and hierarchical
that the troops who will conduct civil-military operations are almost never rep-
resented on Department of Defense (DoD) teams that negotiate prospective
civil-military operations in interagency meetings; they get their direction only
later, with little indication of context.
When the National Command Authorities (the president, secretary of defense, and their staffs) decide to deploy military forces, they provide guidance and direction that will be translated into formal missions and then into orders. The orders may describe the job vaguely or quite specifically, reflecting in varying degrees the personalities of senior leaders, their perceptions of national interests and ethical considerations involved, and their commitments to human rights and democracy, international agreements, and treaties. Orders also embody the domestic ethical, political, cultural, or parochial interests that led to problem definition. These factors can limit or expand a mission, give it clarity or make it opaque. In recent years, the key results of these concerns for the military have been rules of engagement and force-protection directives—designed largely to protect political and military leaders from the recriminations that often follow casualties.

National-level orders may contain internal inconsistencies that make missions especially difficult or even impossible. By analyzing their directives, commanders can (though the literature suggests they rarely do) largely predict what the courses of their operations will be if guidance is not modified. Flawed specifications lead, if not to failure, to changes in missions while they are in progress. The United States has a term for such adjustment to intelligence, policy, planning, and operational shortcomings: mission creep. Frequently, the seeds of failure in mission definitions are fairly obvious. In 1994, for example, no few observers noted that while one might restore to power the winner of one of Haiti’s few reasonably free presidential elections, it was (and remains in 2000) impossible to “restore democracy” to a Haiti that in nearly two centuries of independence had never been democratic. If they are to assemble, train, and lead their forces successfully in civil-military operations, commanders responsible for executing such orders must understand both the foreign situation and the concerns that caused their missions to be constructed the way they were. Failure to understand and provide for either one could cause an operation to fail outright, produce negative consequences, or lead to midcourse changes that degrade unit effectiveness and generate recriminations.

To say that military commanders must understand domestic concerns and the perhaps somewhat hidden agendas of the National Command Authorities does not mean that they should either second-guess or criticize their civilian superiors. Nor do efforts to unravel the subtleties of domestic and international political processes amount to military meddling in civilian affairs. They are part
of a command-and-staff preparation of the operational arena that is just as appropriate and essential for complex civil-military operations as “intelligence preparation of the battlefield” is for combat. A correct perception of political concerns and agendas is required in order to achieve the civil objectives that are at the core of the original decision to launch military operations. It is particularly essential for commanders in fast-moving situations who must in essence help make national policy on the fly. Unfortunately, however, the unified command staffs that draft operations plans appear rarely to consider such factors.

OPERATIONAL PLANNING AND IMPLEMENTING ACTIONS
A presidential directive to carry out a complex civil-military operation abroad mobilizes not only armed forces but a constellation of civilian agencies, which participate in planning and coordination. These typically include the State Department, the National Security Council staff, intelligence agencies, and the Agency for International Development, particularly its Office of Foreign Disaster Assistance, along with others as needed. Each entity has capabilities, perspectives, objectives, and formal responsibilities that reflect its mandate and individual culture. Each may have a different definition of the problem and a different interpretation of the mission and how to conduct it. Interagency battles and policy disagreements often make coordination contentious and slow.

In response, the government has developed mechanisms for fostering cooperation. Some are embodied in formal institutions (like the National Security Council), procedural orders (such as Presidential Decision Directive 56, for the Clinton administration), and standing interagency “deputies committees.” Others are less formal. The interagency coordination process helps reconcile perceptions, judgments, and objectives, but in practice it is complicated, and ever more so as the number of agencies involved grows. Further, reconciliation is rarely complete, and it often involves significant compromises. These compromises lead to divisions of responsibilities on the basis not of operational effectiveness but “turf” concerns.

In recent operations, the Department of Defense has sought only thin—that is, narrowly military—“slices” of responsibility for civil-military operations and has worked hard to keep them thin. This effort to reduce the scope of its role in potential civil-military operations reflects the fact that the DoD neither wants nor prepares extensively for civil-military operations on a continuing basis. It must therefore conduct even its sharply circumscribed—if typically very expensive—parts of most civil-military operations in comparatively ad hoc fashion.

The predictable result of all the above is inefficient U.S. government response to problems calling for civil-military intervention overseas. Elements of this inefficiency include, among other things, less than complete unity of effort, especially incomplete or overlapping command and control structures; forces whose
size and composition have been determined by political considerations; fuzzy statements of desired end-states, crafted more as public relations declarations or advertisements of congenial redeployment ("exit") dates than as meaningful policy documents; and politically driven rules of engagement that interfere with mission accomplishment. Rules of engagement are especially critical, in that they establish much more than the conditions in which troops may fire their weapons: they determine the nature and magnitude of military interactions with civil agencies and with the local populace. They can facilitate, limit, or preclude the accomplishment of a mission.

Once decisions about the division of labor among agencies of the U.S. government are made and the military role in a civil-military operation has been roughly defined, DoD typically turns to its standard operations-planning mechanisms. These sometimes formidable procedures, as applied to complex civil-military operations, make certain Defense Department operational and procurement practices particularly important. These can be divided roughly into five categories: institutions, doctrine, force structure, training, and equipment. These factors determine in large measure the capabilities of a force; they involve definitions, and produce consequences, for civil-military operations that differ from those that arise for combat missions.

**The Military Institutions of Civil-Military Operations**

The Defense Department and the military services have institutional characteristics that strongly influence their willingness and ability to conduct complex civil-military operations—and thus their effectiveness when they do. These institutions extend well beyond buildings and organizational diagrams.

First, the U.S. military is a fairly insular subculture of American society, with unique ways of doing business and of viewing the world. Honoring the "warrior" ethos, it is uncomfortable with the implications of elevating the status of nonviolent conduct. Also, the hierarchical nature of military forces limits its room for initiative and individuality. Men and women who commit themselves to the military profession are for the most part at ease with such relative rigidity; many are not entirely at home in less structured environments. However, an international crisis that requires commitment of U.S. military force is likely to be chaotic—both the triggering event itself and the response of the international community. Moreover, the multilateral, combined nature of civil-military efforts, wherein diplomatic requirements balance geopolitical interests and responsibilities, produces arrangements that sometimes differ sharply from the unity of command that military people expect and appreciate. Their usual response to the frustrating, strange, and confusing world they encounter is rigid adherence to military norms. The complacency, even gloating, of U.S. troops at
what they perceive as the superiority of military order to civilian chaos damages their effectiveness as members of international civil-military teams.

Second, especially in the wake of defeat in Vietnam and the assertion of the “Weinberger Doctrine” in the 1980s, and later the “Powell Doctrine,” the U.S. military generally expects missions to be clearly stated, with explicit definitions of success—ideally “victory”—and clear criteria for at least claiming it.  The world is, however, much too complex to allow simple, bipolar defeat-victory or black-white paradigms of performance; civil-military missions usually deal in shades of gray. The characteristic reluctance of American military personnel to acknowledge the complexities of the world is a formidable handicap to their success in operations other than war.

Relatedly, American military personnel, like Americans in general, tend to be impatient people. They like quick results; they dislike the idea that some missions are achievable only in part, at considerable cost, and over long periods—and perhaps not at all. American military people prefer end-states that are defined not only clearly but in terms of end-dates—like 20 December 1996, by which President Clinton initially decreed that Operation JOINT ENDEAVOR in Bosnia would be concluded. The United States has shown little willingness in recent years to make commitments to operations, like the Sinai, Cyprus, or Northern Ireland, whose duration has already been measured in decades (although a proposed long-term commitment in Kosovo suggests that it has learned from past mistakes). This impatience allows potential adversaries, and recalcitrant factions in peacekeeping and peace-enforcement operations, to use patience as a tactic, even a strategy—simply to wait the Americans out.

Americans also are usually quite confident that they know how to accomplish tasks without advice and that their values and ways of doing things are better than other people’s. Much evidence indicates that this attitude annoys foreigners, who do not appreciate cultural criticisms. Foreigners are likely to embrace their own value systems as least as firmly as Americans hold to theirs. They are especially likely to resent such carping when Americans display extraordinary concern for their own safety and creature comforts at the expense of the collective. Even the British derisively call Camp Bondsteel in Kosovo—complete with gymnasiums and a Burger King restaurant—"Disneyland.”

U.S. personnel must understand their own cultural and collective psychological tendencies in order to appreciate the vulnerabilities that others see, and perhaps take advantage of, in the American military’s collective character. There is
some good news here, however: some norms and attitudes characteristic of American military people—such as, in some contexts, their single-mindedness—impress “target” populations and potential colleagues. Commanders and planners should understand these strengths and work to draw maximum benefit from them.

In the organizational realm, Defense Department personnel policy typically calls for rapid rotation and diverse assignments over the course of a career, producing the solid generalist background that a good senior commander needs. However, such assignments prevent individuals from developing expertise, and units from maintaining institutional memories. Military personnel in major intelligence centers, for instance, take for granted that it is the civilian employees who embody corporate memory; civilians, however, typically have little clout in decision making and usually do not deploy on operations. In operational units, rapid personnel turnover means that the process of training and education is forever starting over. U.S. forces often deploy with little understanding of the areas in which they are to operate—and they learn little after they arrive. These patterns are not conducive to good staff work, sound senior-level decision making, or effective execution.

Finally, frequent terrorist attacks on Americans, including military personnel, have raised force protection as a major political and military concern. However well justified individually, the protective measures that have resulted have seriously adverse consequences. In peacekeeping operations especially, close contacts with inhabitants could speed the state of sustained security that would allow withdrawal of the troops. Yet U.S. commanders in recent years have often placed strict limits on such fraternization. Force protection exalted to this degree is, far from a “force multiplier,” a force divisor—it makes necessary more troops than the mission itself requires; it prohibits U.S. troops from conducting certain activities that would be valuable; and it seems to reflect physical cowardice. In general, it diminishes the credibility of the commitment of American forces to do what other coalition military contingents do.

There are other examples, but the general point is that U.S. institutional characteristics, including culture, values, incentive systems, and procedures, have significant and frequently adverse implications for the effectiveness of U.S. forces in complex civil-military operations, particularly peacekeeping. Commanders and planners must assess these implications in the context of the goals of their operations—whether military, political, economic, social, public health, or environmental. They also must understand the institutions of the civil organizations, American and international, with which they work, and those of military coalitions of which they are part.
Doctrine

U.S. law and policy place civil-military operations below combat operations as budgetary priorities. That means low priority for equipment procurement, training, and doctrine—the development of shared techniques. In doctrine itself, inasmuch as it reflects the attitudes of “warfighters,” civil-military operations have an even lower standing. As a result, civil-military doctrine has been limited, somewhat controversial, and inadequate.

The U.S. Army doctrinal publication on the subject, Field Manual 41-10, Civil Affairs, is largely a “how-to” guide for organizing civil affairs units, supplemented by generic descriptions of the activities that they perform, to help commanders achieve mission goals through interaction with civilians and civil institutions. However, there has never been a comprehensive listing of tasks, a conceptual framework for civil affairs operations other than war, or a description of what commanders, international organizations, and nongovernmental organizations should be able to expect from U.S. civil affairs units in that setting. Joint (multiservice) doctrine is modest at best; the Marine Corps, for instance, conducts civil affairs differently than the Army. No doctrinal guide or formal procedure places civil affairs or civil-military operations in a broad context or helps practitioners understand the world of civil-military operations from a conceptual perspective. Most importantly, the conventional units that conduct operations with large civil-military components have essentially no doctrine to guide their training or conduct.

Force Structure

The United States has virtually no troops dedicated to conducting civil-military operations. The active Army’s 96th Civil Affairs Battalion and Special Forces groups focus on civil-military operations extensively, but other regular units get little relevant training prior to deployments. Reserve Army and Marine Corps civil affairs troops have roles similar to that of the 96th CA Battalion but typically work in larger and longer-term operations. In either case, however, civil affairs troops are primarily advisors and facilitators. The United States cannot conduct even small-scale civil-military operations without conventional units—which are structured, equipped, and trained primarily for traditional combat or combat support.

In the absence of a standing, specialized force, and of either doctrine or analytical processes to aid the design of such a force, commanders who are given civil-military operations missions must work with ad hoc assemblages of units. The virtually inevitable result is that force structure in complex civil-military operations is suboptimal. The biggest U.S. contribution to JOINT ENDEAVOR in December 1995 was most of an armored division—helpful for peace enforcement
but poorly suited to postwar peacekeeping. In late 1996, the United States replaced some tank units in Bosnia with mechanized infantry and added more military police; this made the U.S. force more like the European nations' original contingents.

**Training**
Complex civil-military operations have only a small place in the professional training of the U.S. military; doctrine, however apt, is of little use unless troops learn and practice it before they deploy. Because Congress has not declared peacekeeping to be of major importance and the military itself views civil-military operations as a tertiary priority, the nation's forces as a whole are poorly trained for both. While there are exceptions, the civil dimension of military operations receives little classroom time and seldom appears meaningfully in the scenarios of command-post and field exercises. This effectively ensures that deploying units will not have adequately assessed the situations they are about to enter, will not fully understand their explicit missions, let alone the implied tasks, and will not have prepared for them. Each is essential.

Even formal instruction and exercises, however, are not enough. Training for civil-military operations must also address the decision-making processes of the U.S. government. Officers may have encountered this material in high school civics courses, but the military does not address it systematically outside of senior service schools. Similarly, there is no room in most military courses for detailed treatments of foreign affairs. Promotion prospects are notoriously poor for specialists like Foreign Area Officers, a fact that discourages officers from pursuing such fields. Personnel-rotation policies, as noted, often diminish whatever expertise individuals may accumulate by regularly transferring them from theater to theater. In mid-1996, for example, there were no U.S. military specialists on the Balkans in either the Implementation Force headquarters at Sarajevo or in the U.S. National Intelligence Cell at Ilidza. Finally, training is needed on international entities—at the global level, especially the United Nations; on regional organizations such as the European Union and the Arab League; and on the thousands of nongovernmental organizations, some of which will participate in any peacekeeping operation or humanitarian-relief mission. Nongovernmental organizations rarely have roles in exercise play, and even special operations troops have little contact with international organizations and nongovernmental organizations when not deployed.

The U.S. intelligence community has made complex civil-military operations still more difficult in recent years by focusing on force protection at the expense of mission execution. It has diverted, at the request of the Defense Department, human-intelligence collection resources that could foster understanding of situations toward identification of “threats.” The overall result is a dearth of information in
the U.S. government of the day-to-day political, social, and economic activities of countries that could be sites of complex civil-military operations tomorrow. The limited effort that intelligence agencies devote to foreign societies, as such, makes any new crisis more likely to be a surprise and hinders preparations and planning for deployments to respond to it. Military institutional practices already mentioned, such as short tours and deployment of “grab bags” of personnel and units sometimes chosen with more regard for the services’ bureaucratic desires than for unit qualifications, ensures that what little understanding exists cannot be adequately applied to the planning and conduct of civil-military operations.

**Equipment**

U.S. conventional military units typically do not have equipment designed specially for peacekeeping operations or other such missions. In Bosnia, for example, tactical vehicles, built wide to resist rolling over, often do not fit in narrow Bosnian streets or on makeshift replacement bridges, which are just wide enough for a single narrow, European vehicle. Army civil affairs troops who traveled extensively in hilly terrain in 1996 had no good communications equipment and borrowed Motorola handheld radios from the Office of the High Representative—itself a woefully underequipped organization. U.S. units initially did not have riot-control gear, because the military refused to involve itself in “police” duties.

At the same time, much equipment designed for combat and combat support, especially engineer and transportation equipment, could be useful in complex civil-military operations. A sound assessment of the physical setting of a civil-military operation, along with analysis of the international community’s objectives (those that are also objectives of the United States), should lead staff planners to anticipate the equipment needs of stated and implied tasks.

A concomitant study of the physical resources and deficiencies of prospective international and nongovernmental partners would suggest what assistance these civil organizations are likely to request. U.S. commanders in complex civil-military operations should expect to share equipment (in which coalition partners are likely to consider them rich) and to use their equipment and people to provide services. Moreover, they should take for granted that requests may become orders; if they do not either share equipment or supply services, they can expect civil agencies to lobby Washington with sufficient energy to stimulate directives through the military chain of command. Many international and nongovernmental organizations are familiar with political processes and have the ears of decision makers in Washington and other capitals, and in UN offices in New York and Geneva. Indeed, many of these entities are based in Washington or are staffed heavily by Americans. It is essential that commanders
and their staffs understand their equipment strengths and limitations in the context of the civil-military operations environment as well as the needs of international civil agencies—and that this awareness be prominent in mission planning and execution.

**Capabilities**
The major contribution of the military in a civil-military operation may be to prevent war or large-scale violence, by the presence and potential use of ground combat power and, to a much lesser extent, air and naval power. While specific capabilities vary by force structure and operation, the capabilities of the U.S. military to support the international community in complex interventions are likely to be concentrated in a few discrete functional areas: air and ground transport, especially the transportation of civilian members of the international mission, the press, displaced persons and refugees, and supplies; medical facilities and skills; military police services, to help establish security, conduct reconnaissance, and provide security-related equipment and training; engineering equipment and skills, including road and bridge repair, water desalination and purification, and land-mine neutralization; and public information and communications, including radio and television programming. In addition, American military air-traffic management is useful until a local government or international regime can restore scheduled civil air transportation, as are civilian technical skills (embodied in some civil affairs personnel) in a wide variety of areas. Further, characteristic U.S. military organizational skills, discipline, and standard operating procedures may be valuable to under-resourced civil agencies, especially ad hoc bodies that are not well led or that international diplomatic imperatives have made inefficient.¹⁶

Finally, American resources can inject a financial stimulus, through the hiring of local workers and purchases of locally produced light-industrial products (such as building materials) and consumer goods (such as bakery items). The hard currency thus introduced may be invaluable for monetary systems in shambles. Contractors (such as DynCorp and Brown & Root) that provide logistical support for U.S. components of civil-military operation should be made integral parts of the planning processes.

The value of American wealth to civil-military operations and “target” localities is diminished, however, by the small amount of cash allocated to field units. Also, the complexities of interagency financial transfers make it difficult for, say, an engineer unit to use Agency for International Development funds to repair a bridge.¹⁷ Cash may be essential for even small-scale civil-military projects that require procurement of local resources.¹⁸
In general, the impact of an international intervention force on a locality is a question that U.S. military planners typically do not address but that may heavily influence the effectiveness of the American military contribution. Decision makers may assess certain of the pieces of the situation correctly but fail to place them in complete context or to anticipate the dynamic effects of an "occupation" force. They are more likely to define and perceive military areas of responsibility geographically than functionally. Even the format of operations plans—designed for combat operations—inhibits sophisticated analysis. For example, it pushes staff planners to cram local and international institutions into template-driven categories like "friendly forces" and "enemy forces."

The United States thus may design, and pressure the international community to accept, relief programs or peace processes that fail to address key elements of the conflict—in military jargon, the "center of gravity." Such an intervention is likely to fail. Planning fails if it does not address key issues, addresses them in dysfunctional ways, or introduces stresses that prolong a conflict by encouraging its spillover into other arenas. The latter can happen when a military intervention is so lengthy or offensive to local sensibilities that it generates an insurgency against the force itself. The transparent pro-Muslim bias of the United States in Bosnia risks stimulating such a reaction among Bosnian Serbs and, to a lesser extent, Bosnian Croats. Nato forces have alienated both Serb and ethnic Albanian sensitivities in Kosovo, further damaging prospects for achievement of the alliance's ostensible goal of a peaceful, pluralistic Kosovo.

Its abundance of human and physical resources often makes the U.S. military a particularly significant member of a civil-military team, despite the sometimes narrow applicability of its resources and its lack of sophistication about how to use them. The ultimate usefulness of its assets in a given operation depends upon the situation, force composition, the extent to which military assets complement those of local and international civil agencies, and a host of intangible factors, including interpersonal relations. U.S. joint doctrine does not address these issues well. The regional commands that typically plan American military contributions to civil-military operations have no structural capacity to address them either, let alone use nontraditional methods to prepare for deployments. These handicaps are formidable.

MEASURING PROGRESS AND INSTITUTIONALIZING LESSONS
It is essential that the Defense Department and the government as a whole have ways to measure progress of civil-military operations both as they unfold—against stated objectives and also in comparison to the actual situation—and when they have ended, to institutionalize lessons. Despite expenditure of substantial
resources and notwithstanding some progress, the United States (like the international community as a whole) is not close to achieving either goal.

While individual people and country desks at the State Department and in the intelligence community follow developments and watch certain issues closely, there is no government-wide analytic framework for such assessments and no organization to sponsor them. Nor are there effective means to ensure interagency communications; if anything, turf concerns hamper them. There is thus no usable set (or collection of sets) of measures of effectiveness to assist policy and decision making, to be embedded in military plans, or to use in the field. Such measures must be sophisticated and flexible enough to be tailored to each situation: this is a difficult task. The often-used but crude “stoplight” charts—red-amber-green “metrics” of easily observable variables—may be useless or even counterproductive if they oversimplify complex situations, inaccurately and incompletely measure key variables or address peripheral ones, or stimulate unwarranted confidence about how well the situation “outside the wire” is understood.

Most after-action reviews and Joint Universal Lessons Learned System reports focus on narrow aspects of operations. While these official vehicles can be useful in certain respects (not least for historians), many of these papers have several unfortunate characteristics. They describe only specific local operations; they are unable, because of their brevity and narrowness in functional and temporal terms, to establish the broader context of the society a military intervention has influenced. They offer only anecdotal measures of what worked and what did not, ending with a jumble of incompletely explained or sourced comments, and recommendations of tactics whose histories may well be checkered. Moreover, after-action reports are inherently political documents; self-censorship limits their candor and completeness, and therefore their accuracy and credibility. Some are quashed in draft as politically incorrect, especially if they reflect decisions that, with hindsight, might be judged to have been mistakes. This is ironic, since (as should be no surprise) they are little read or heeded in any case.

When high-quality recommendations do arise, there is no formal mechanism for transferring them into U.S. policy formulation and operational planning processes. That is, there is no consistent way for the lessons of an operation to enter the process of situation monitoring, problem identification, or policy decision making at the national level, or planning and operational preparations in the Defense Department. The unified commands that prepare operational plans are largely independent fiefdoms with no requirements or incentives to study the past or the current operations of other commands. Their staffs may well feel they have no time to collect and study such material, even if they wanted to;
neither do they like either to ask for or receive advice from other organizations—particularly civilian ones.

Systematic data gathering and assessment of the civil aspects of civil-military operations would greatly aid in the crafting of measures of effectiveness. It would also enable intelligence officers, State Department desk officers, and Defense Department personnel to identify trends that could give rise to problems the United States will feel obliged to address. Purposeful early warning would identify opportunities for action that could, in some cases, preclude any need for military intervention. Also, with a coherent model of worldwide trouble spots and a body of experience in hand, policy makers and military planners could better prepare forces for deployments where they are needed.

Rudimentary measures can be found outside the U.S. government. The Fund for Peace has a generic twelve-indicator scheme, based to a large degree on physicians’ assessments of the incidence of diseases; this may be a good approach, because failed states and civil conflict are arguably the collective societ al equivalent of disease. Humanitarian nongovernmental organizations have good measures on disease outbreaks. The Allied Command Europe Rapid Reaction Corps in Bosnia developed in 1996 “normality indicators” to measure a number of symptoms of normalcy. Canada also uses normality indicators.

Certainly some lessons of experience do reach troops, policy makers, and voters. Most Americans believe that dead American soldiers should not again be dragged through streets; most Americans now think that the Vietnam War was “bad.” However, these are matters of folklore, not systematic learning processes that appropriately introduce meaningful lessons into decision making, analytic processes, and information and intelligence collection. Indeed, such partial learning may be counterproductive when its “lessons” are based on factual error, poor judgments, or bias.

Even with such a data-gathering and analytical framework, there will be planning and operational obstacles. Chronic opposition of conventional military personnel to special operations was so great that Congress in 1986 created the U.S. Special Operations Command over their objections and gave it an independent budget. In 1995, resistance within the armed forces to complex civil-military operations was widespread enough during the Dayton talks to prompt Richard Holbrooke, then assistant secretary of state, to decry Pentagon “minimalists” who were trying to avoid a role in Bosnia. This attitude evidently continues today.
SELF-EVIDENT REALITY
The failures and flawed successes of recent years in complex civil-military operations and the evident unwillingness of the Defense Department to adapt to self-evident reality indicate that fundamental institutional changes are required. Legislation may again be necessary; current law, emphasizing as it does (appropriately enough) traditional security threats, gives the Defense Department an excuse to avoid preparing for civil-military operations. An example is the congressional and executive-branch attitude that annual supplemental or emergency appropriations are adequate ways to pay for such unwelcome, if chronic, obligations as civil-military operations in places like Bosnia and Kosovo. Even narrowly military functions inevitably are affected by the ad hoc decision making this practice reflects and engenders, and by the budgetary “taxes” on the rest of the Defense Department that are a direct result. Such unwillingness to address civil-military operations directly and on a long-term basis causes disruption throughout the department, even as it hinders the planning and execution of operations that arise.

The military’s internal culture is another issue. The denigration of foreign area and political expertise, as well as Defense-wide policies that disperse whatever skills exist, will continue, in the absence of internal reforms, to hamper the ability of the U.S. military to conduct sophisticated civil-military operations. The result is foreign-affairs amateurs planning civil-military operations for regional commanders in chief without the benefit of pertinent service, joint doctrine, or such wisdom as arises from recent experience. This is a major leadership challenge at the national level; it may warrant another “Goldwater-Nichols” act.

All of this points to the value of an interagency body composed of diplomats, intelligence officers, and military personnel—perhaps aided by adjunct academics and representatives from international and nongovernmental organizations—to assist military planners when civil-military operations loom. Such a group could work as interagency organizations now do, and thus avoid the appearance of a radical and threatening institutional change, but could focus on areas in which there have been clear problems. It could better mobilize the resources of member agencies; supply analytic rigor and broad regional or historical context; and generate intelligence-collection requirements, identifying categories of data that would help the United States to determine how it could be useful and to assess results.

A reorganized Joint Forces (formerly Atlantic) Command with its new force-provider mission might establish a standing joint task force devoted to civil-military operations. Such a force would be able to respond globally to provide expertise and institutional memory to regional commanders in chief.
Congress may prefer to consider giving the U.S. Special Operations Command expanded responsibility for planning and conducting civil-military operations. Alternatively, the Defense Department or Congress might direct the Army to create a new force specifically for peacekeeping operations and other civil-military operations, building it around a division headquarters having larger-than-normal intelligence, logistics, and civil-military sections but small fire-support elements. The division or joint task force—equivalent ought to be unusually "rank heavy," to allow it to function in diplomatically sensitive environments. It might regularly contain medical, transportation, military police, intelligence, and engineer units but acquire combat battalions only in supporting roles and as needed. In a reversal of usual practice, the traditional "combat support" elements listed above would be the "teeth" of civil-military operations. Detachments of this unit would form the planning and headquarters elements of military contingents for proposed civil-military operations.

Defense-wide institutional changes also are needed in command emphasis, doctrine, and training in many individual disciplines that are critical to mission success in civil-military operations. The RAND Corporation has demonstrated convincingly, for instance, that the peacekeeping operations of the mid-1990s had markedly negative effects on the performance of the U.S. Air Force as a whole; it has proposed, in essence, that the Air Force do its peacekeeping operations tasks in a new way. The ground portions of civil-military operations, which typically are much more complex, can also be much improved. The U.S. military role in complex civil-military operations, in all its aspects, merits fundamental reconsideration and reform.

**NOTES**


3. See, for example, several good articles in *Parameters*, Winter 1998–99: Max Manwaring.


5. A major reason for U.S. intervention in Haiti was a desire to halt illegal immigration. Germany states as a formal policy objective of its involvement in Bosnia the fostering of stability sufficient to encourage Bosnian refugees in Germany to return home.

6. "Intelligence preparation of the battlefield" involves an assessment by a unit's intelligence section of the enemy and friendly situation, supplemented with facts and judgments.
about enemy dispositions and likely courses of action.


8. The U.S. military is in fact a far from hierarchical organization. The services, the defense agencies, the Joint Staff, the Office of the Secretary of Defense, and the nine unified commands are power centers with significant independent authority and acute senses of their respective prerogatives.

9. The so-called Weinberger Doctrine, named for Secretary of Defense Caspar Weinberger, held basically that U.S. troops should not be deployed unless the mission was clear; public support was strong; and the objectives were overt, limited, and quickly achievable. It reflected lingering unhappiness about the conduct of the war in Vietnam. Such views continue to be strongly held in the Defense Department and Congress.


13. The U.S. Army Special Operations Command at Fort Bragg, which contains the U.S. Army Civil Affairs and Psychological Operations Command (USACAPOC), spent several years in the mid and late-1990s revising the manual, at a modest level of effort—strong evidence in itself of the low priority of civil-military operations doctrine, even within the Army’s special operations community. A new edition was published in February 2000.

14. Source is the author’s on-site survey of expertise at both locations.


17. UN High Commission for Refugees (UNHCR) officials in Bosnia in 1996 came close to asking High Commissioner Sadako Ogata to use her influence to overturn what they considered to be meddling by the Supreme Allied Commander, General George Joulwan, with refugee issues.

18. Because of the large number of nations and multinational organizations involved in some operations, diplomatic wrangling sometimes leads to inefficient organizational structures. Nations negotiate to control aspects of operations or key personnel assignments. Differences in enthusiasm for operations, and differing objectives, lead to foot-dragging or interference with the agencies empowered to conduct complex operations. Indeed, the United Nations as a whole reflects these traits.


20. By contrast, the United Kingdom allocated reconstruction project funds to its army commanders in Bosnia.

21. Joint planning doctrine is focused on combat operations, as are tactical planning methods. See The Joint Staff Officer’s Guide 1993, Armed Forces Staff College Publication 1 (Washington, D.C.: 1993), esp. sec. 7 and app. C.

22. The incompleteness of written records is exacerbated by the tendency of all services to man long-standing operations in the regular way, by rotating personnel through in short tours. These people cannot become familiar with local conditions, and they cannot place their actions (and inaction) in a historical context. Still shorter tours designed to
improve the troops' "quality of life" would make this situation worse.


24. Due to resource constraints, the analyst, George Rose, concentrated on indicators like prices and physical phenomena (such as damage) that junior IFOR soldiers could readily observe and quantify. His system did not include demographic, macroeconomic, or political factors. It was therefore, while helpful, quite limited. At the same time, an IFOR and Office of the High Representative effort to include data from the UN High Commissioner for Refugees and the World Bank in a larger collection effort failed to win adequate backing. At the behest of U.S. special envoy Richard Sklar, the preliminary work became instead an infrastructure-reconstruction management tool.


26. For proposals to improve the interagency processes, see Bruce Pirrie, Civilians and Soldiers, MR-1026-SIU (Santa Monica, Calif.: RAND, 1998).

27. Alan Vick, David T. Orletsky, Abram N. Shulsky, and John Stillion, Preparing the U.S. Air Force for Military Operations Other than War, MR-842-AF (Santa Monica, Calif.: RAND, 1997).
THE RIGHT TO HUMANITARIAN ASSISTANCE

Yoram Dinstein

It is impossible to assert, at the present point, that a general right to humanitarian assistance has actually crystallized in positive international law. Such a general right, had it consolidated, could be invoked in all circumstances: in peacetime (either in the face of endemic problems of famine, malnutrition, and disease, or—perhaps especially—when natural disasters occur) as well as in the course of armed conflicts (either international or internal). In reality, however, there is no clear-cut right under existing international law to humanitarian assistance in peacetime, not even when natural disasters strike. To the extent that the right to humanitarian assistance is vouchsafed by binding norms of international law (customary or conventional), this is so only in certain contexts of armed conflict.

During an armed conflict (whether international or internal), the issue of humanitarian assistance arises solely as regards the indispensable needs of the civilian population. That is to say, first, that when offered or requested, humanitarian relief must be confined to civilians—it cannot be extended to combatants. Second, relief consignments can include only essentials, such as food, water, medications, clothing, bedding, and means of shelter. Clothing, bedding, and means of shelter are of particular relevance to refugees and displaced persons, but all civilians in a devastated area (including those with roofs over their heads) may be in dire need of food, water, and medications.
There are principally three scenarios in which the issue of humanitarian assistance may come into focus in armed conflict (whether international or internal).

- A belligerent party controlling the territory inhabited by civilians possesses the essential provisions required and, given good will, could distribute them without undue difficulty to meet the demand. Yet, it pursues a deliberate policy of denying supplies to those in need (primarily, enemy civilians or persecuted minorities).

- Essential provisions are available to a belligerent party that is desirous of distributing them to the civilians in need, but distribution is obstructed by the enemy.

- Essential provisions within the territory controlled by a belligerent party are generally scarce, or the distribution system has collapsed owing to the ravages of the armed conflict.

In the first two instances, the situation can be remedied by the belligerents themselves (acting alone or in tandem). In the third, humanitarian relief can come only from outside sources—neutral states or charitable nongovernmental organizations—which must gain access to the afflicted area.

RIGHTS AND OBLIGATIONS

It is useful, at least from the perspective of juridical theory, to distinguish in armed conflict between a right of the civilian beneficiaries to demand or obtain humanitarian assistance and a right of states (or impartial humanitarian organizations, like the ICRC [International Committee of the Red Cross]) to insist on providing such assistance. Should it be recognized that civilians have a right to demand or obtain humanitarian assistance, it is necessary to pinpoint the party bearing the corresponding duty to render that assistance. In the first two instances mentioned above, a duty can be imposed by international law on one or another of the belligerent parties. In the third instance, the situation is more complex. Surely, civilians do not have an absolute right to demand relief from the outside, applicable *erga omnes* (that is, vis-à-vis the entire international community). In other words, it would be absurd to contend that every state in the world is duty bound to come up, on demand, with relief aid to civilians embroiled in any armed conflict, wherever it is raging. However, if relief is offered by a neutral state (or an impartial humanitarian organization), civilians may have a right to insist that shipments reach their destination, and belligerents may have a corresponding duty to enable free passage. Moreover, the neutral state may have a right vis-à-vis the belligerents—and, as circumstances dictate,
vis-à-vis other neutral states through whose territories the shipments must be routed—to expect that relief consignments will actually be allowed to get through to the civilian beneficiaries.

**SETTINGS FOR HUMANITARIAN AID**

No customary norm has so far crystallized in the international law of armed conflict to establish a general right to humanitarian assistance (of whatever type) solely because provisions are scarce. It is, therefore, proposed to address here different factual settings arising in armed conflict. Each presents its own problems and its own solutions. These discrete settings are: occupied territories, siege warfare, maritime blockade, aliens in the territory of a party to the conflict, general relief supplies from the outside, and noninternational armed conflicts.

Additional issues to be discussed are germane to enforcement measures and the responsibility of the Security Council of the United Nations.

**Occupied Territory**

When enemy territory is subject to belligerent occupation, the legal position as regards humanitarian assistance to the local civilian population is the clearest. Article 55(1) of the 1949 Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War prescribes that “[T]o the fullest extent of the means available to it, the Occupying Power has the duty of ensuring the food and medical supplies of the population; it should, in particular, bring in the necessary foodstuffs, medical stores, and other articles if the resources of the occupied territory are inadequate.”

The authoritative ICRC commentary on this convention sets forth that according to article 55(1), the occupying power incurs “a definite obligation to maintain at a reasonable level the material conditions under which the population of the occupied territory lives.” Article 69(1) of the 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), broadens the list of objects specified in article 55(1) by itemizing also clothing, bedding, means of shelter, and any other supplies essential to the survival of the civilian population.

In employing the phrase “[T]o the fullest extent of the means available to it” in Article 55(1) of Geneva Convention (IV), as well as in article 69(1) of Protocol I, the framers of the two instruments show their awareness of the predicaments in which the occupying power is likely to find itself in time of armed conflict (indeed, it may itself be exposed to a maritime blockade imposed by the enemy). Assuming a paucity of supplies at hand, the question is whether the occupying power must allow humanitarian relief (when offered) from the outside.

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Article 59(1)-(2) of Geneva Convention (IV) sets forth that “[i]f the whole or part of the population of an occupied territory is inadequately supplied, the Occupying Power shall agree to relief schemes on behalf of the said population, and shall facilitate them by all the means at its disposal. Such schemes, which may be undertaken either by States or by impartial humanitarian organizations such as the International Committee of the Red Cross, shall consist, in particular, of the provision of consignments of foodstuffs, medical supplies and clothing."

As stressed in the ICRC commentary on article 59, the obligation imposed on the occupying power to enable such relief consignments to reach the civilian population “is unconditional.”

A violation of article 59 of Geneva Convention (IV) is not enumerated in article 147 as one of the “grave breaches” of the convention. On the other hand, “wilfully impeding relief supplies as provided for under the Geneva Conventions” is categorized as a war crime in article 8(b)(xxv) of the 1998 Rome Statute of the International Criminal Court (which is not yet in force).

Siege Warfare
The legality of siege warfare was not contested in classical international law; the legitimacy of attempting to reduce a besieged place through starvation was “not questioned.” Article 17 of the Geneva Convention (IV) deals with siege warfare in a very peripheral way, proclaiming, “The Parties to the conflict shall endeavour to conclude local agreements for the removal from besieged or encircled areas, of wounded, sick, infirm, and aged persons, children and maternity cases, and for the passage of ministers of all religions, medical personnel and medical equipment on their way to such areas." Obviously, only limited categories of civilians benefit from this stipulation. Besides, “[T]he words ‘The Parties to the conflict shall endeavour’ show that under the Convention evacuation is not compulsory”; article 17 amounts merely to a strong recommendation to belligerents to conclude an agreement effecting the removal of those enumerated.

The legal position is radically altered in article 54 of Additional Protocol I, which reads;

1. Starvation of civilians as a method of warfare is prohibited.

2. It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party, whatever the motive, whether in order to starve out civilians, to cause them to move away, or for any other motive.
3. The prohibitions in paragraph 2 shall not apply to such of the objects covered by it as are used by an adverse Party:

(a) as sustenance solely for the members of its armed forces; or

(b) if not as sustenance, then in direct support of military action, provided, however, that in no event shall actions against these objects be taken which may be expected to leave the civilian population with such inadequate food or water as to cause its starvation or force its movement.\textsuperscript{15}

The starvation of civilians is not enumerated in Protocol I itself as a "grave breach" (and therefore a war crime).\textsuperscript{16} Nonetheless, it is noteworthy that article 8(2)(b)(xxv) of the Rome Statute of the International Criminal Court includes the following in the list of war crimes: "Intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including wilfully impeding relief supplies as provided for under the Geneva Conventions."\textsuperscript{17} The last words are of particular importance, inasmuch as they specifically stigmatize as a war crime a deliberate denial of humanitarian assistance in breach of the Geneva Conventions.

A siege laid to a defended town (inhabited by civilians) must be distinguished from one encircling a military fortress.\textsuperscript{18} In the latter case, since the sustenance only of members of the enemy armed forces is at stake, starvation is a legitimate method of warfare, and it is permissible to destroy systematically all foodstuffs that can be of use to the besieged. By contrast, in the former case, inasmuch as civilians are directly affected, starvation and the destruction of foodstuffs are interdicted. In conformity with Protocol I, "A food supply needed by the civilian population does not lose its protection simply because it is also used by the armed forces and may technically qualify as a military objective. It has to be used exclusively by them to lose its immunity."\textsuperscript{19} Yet, even pursuant to article 54 of the protocol, the besieging force can probably prevent supplies from getting through if civilians are guaranteed safe passage out of the besieged area.\textsuperscript{20}

\textit{Maritime Blockade}

Article 23(1) of Geneva Convention (IV) enunciates, "Each High Contracting Party shall allow the free passage of all consignments of medical and hospital stores and objects necessary for religious worship intended only for civilians of another High Contracting Party, even if the latter is its adversary. It shall likewise permit the free passage of all consignments of essential foodstuffs, clothing and tonics intended for children under fifteen, expectant mothers and maternity cases."\textsuperscript{21}

Although no explicit reference to blockade is made in article 23(1), there is no doubt that blockade constitutes the background of this clause.\textsuperscript{22} The obligation
created in it is extremely limited in scope. Apart from being subjected to various conditions spelt out in other paragraphs of article 23, free passage of consignments for all civilians is confined to medications, and other items (food and clothing) are circumscribed to certain segments of the population deemed singularly vulnerable. There is plainly no requirement to allow the supply of food and clothing to the civilian population in general.

Other provisions pertaining to blockades appear in article 59(3)–(4) of the Convention. Paragraph (3) states that "[A]ll Contracting Parties shall permit the free passage of these consignments and shall guarantee their protection." According to paragraph (4), "[A] Power granting free passage to consignments on their way to territory occupied by an adverse Party to the conflict shall, however, have the right to search the consignments, to regulate their passage according to prescribed times and routes, and to be reasonably satisfied through the Protecting Power that these consignments are to be used for the relief of the needy population and are not to be used for the benefit of the Occupying Power." These stipulations must, of course, be read together with paragraphs (1) and (2) of article 59 quoted above, dealing with relief consignments to occupied territories. Paragraph (3) is viewed by the ICRC commentary as "the keystone of the whole system"; its thrust is that such consignments must be allowed to cross through a blockade, subject to verification and supervision.

The prohibition—incorporated, as noted, in Protocol I—of starvation of civilians as a method of warfare does not by itself render blockade unlawful as a method of warfare, provided that such starvation is not the sole purpose of the blockade. This follows from the language of article 49(3) of the Protocol: "The provisions of this Section [articles 48–67] apply to any land, air or sea warfare which may affect the civilian population, individual civilians or civilian objects on land. They further apply to all attacks from the sea or from the air against objectives on land but do not otherwise affect the rules of international law applicable in armed conflict at sea or in the air." As the ICRC commentary on the protocol explains the paragraph, "In general the delegates at the Diplomatic Conference were guided by a concern not to undertake a revision of the rules applicable to armed conflict at sea or in the air. This is why the words 'on land' were retained and a second sentence clearly indicating that the Protocol did not change international law applicable in such situations was added." Even those advocating the illegality of a blockade giving rise to starvation of civilians are forced to concede that their position collides head-on with the
original intention of the diplomatic conference that the instrument it produced have no impact on the law of blockades.  

Aliens
As far as aliens in the territory of a party to the conflict are concerned, article 38(1) of Geneva Convention (IV) confers upon them the right “to receive the individual or collective relief that may be sent to them.” As the ICRC commentary expounds:

Relief as meant here will consist, for example, of consignments of food, clothing and medical supplies sent to the protected persons individually or collectively. Such consignments may come either from the country of origin of the protected persons or from any other country and may be sent by private individuals, humanitarian organizations or governments.

The right of protected persons to receive relief implies an obligation of the country of residence to allow the consignments to enter its territory and to pass them on intact to the addressee.

Relief from the Outside
Article 70 of Protocol I pronounces:

1. If the civilian population of any territory under the control of a Party to the conflict, other than occupied territory, is not adequately provided with the supplies mentioned in Article 69, relief actions which are humanitarian and impartial in character and conducted without any adverse distinction shall be undertaken, subject to the agreement of the Parties concerned in such relief actions. Offers of such relief shall not be regarded as an interference in the armed conflict or as unfriendly acts. In the distribution of relief consignments, priority shall be given to those persons, such as children, expectant mothers, maternity cases and nursing mothers, who, under the Fourth Convention or under this Protocol, are to be accorded privileged treatment or special protection.

2. The Parties to the conflict and each High Contracting Party shall allow and facilitate rapid and unimpeded passage of all relief consignments, equipment and personnel provided in accordance with this Section, even if such assistance is destined for the civilian population of the Adverse Party.

3. The Parties to the conflict and each High Contracting Party which allow the passage of relief consignments, equipment and personnel in accordance with paragraph 2:

(a) shall have the right to prescribe the technical arrangements, including search, under which such passage is permitted;
(b) may make such permission conditional on the distribution of this assistance being made under the local supervision of a Protecting Power;

(c) shall, in no way whatsoever, divert relief consignments from the purpose for which they are intended nor delay their forwarding, except in cases of urgent necessity in the interest of the civilian population concerned.

4. The Parties to the conflict shall protect relief consignments and facilitate their rapid distribution.

5. The Parties to the conflict and each High Contracting Party concerned shall encourage and facilitate effective international co-ordination of the relief actions referred to in paragraph 1.\textsuperscript{14}

In contradistinction to article 23(1) of Geneva Convention (IV) cited earlier, article 70(1) of Protocol I “expands relief entitlement to the whole population, and not only to vulnerable segments” thereof.\textsuperscript{15} Furthermore, article 70(1) employs the phrase “shall be undertaken,” which—when taken alone—“clearly implies an obligation to accept relief offers meeting the requirements mentioned in the article.”\textsuperscript{16} However, one cannot disregard the glaring fact that implementation of the implied obligation is explicitly subject to an agreement between the parties concerned. “Consent—the expression of sovereignty—is hence a basic principle in the exercise of the right to humanitarian assistance in armed conflicts.”\textsuperscript{17}

As long as an agreement by all concerned lies at the root of relief actions, one cannot speak of a genuine obligation to allow, or a genuine right to obtain, humanitarian assistance. At best, article 70(1) may be construed as precluding refusal of agreement to relief for arbitrary or capricious reasons.\textsuperscript{18} Regrettably, there are a host of nonarbitrary and practical reasons that can be invoked by a belligerent in armed conflict if it chooses to withhold its consent from the delivery of relief supplies to civilians. The upshot is that the framers of article 70(1) created “the impression of an ironclad obligation, and at the same time took the bite out of that rule.”\textsuperscript{19}

\textbf{Noninternational Armed Conflicts}

For the legal position in noninternational armed conflicts, it is necessary to consult two sources. First, there is common article 3 of the four Geneva Conventions of 1949, which states, “An impartial humanitarian body, such as the International Committee of the Red Cross, may offer its services to the Parties to the conflict.”\textsuperscript{20} Undeniably, the pivotal word here is “offer.” Hence, the parties to the conflict can always choose to decline it.\textsuperscript{21}

The second source is the 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II).\textsuperscript{22} Article 14 of Protocol II prohibits both
starvation of civilians as a method of combat and attacking objects indispensable to the survival of the civilian population. However, it must be taken into account that the 1998 Rome Statute on the International Criminal Court—which, as mentioned, brands as a war crime the starvation of civilians in an international armed conflict (including the deliberate denial of humanitarian relief supplies as provided for by the Geneva Conventions)—does not treat in the same manner the starvation of civilians in a noninternational armed conflict.

Even those advocating the illegality of a blockade giving rise to starvation of civilians are forced to concede that their position collides head-on with the original intention of the diplomatic conference.

The omission was by no means accidental. It is conspicuous in light of the long catalogue of war crimes in internal armed conflicts encompassed in article 8 of the statute.

Article 18 of Protocol II prescribes:

1. Relief societies located in the territory of the High Contracting Party, such as Red Cross (Red Crescent, Red Lion and Sun) organizations, may offer their services for the performance of their traditional functions in relation to the victims of the armed conflict. . . .

2. If the civilian population is suffering undue hardship owing to a lack of the supplies essential for its survival, such as foodstuffs and medical supplies, relief actions for the civilian population which are of an exclusively humanitarian and impartial nature and which are conducted without any adverse distinction shall be undertaken subject to the consent of the High Contracting Party concerned.

A leading role in the field of international humanitarian assistance is traditionally played by the ICRC. Yet, interestingly enough, article 18 of Protocol II does not mention the ICRC by name. Thus, if one looks for a legal niche to accommodate the ICRC, it is necessary to fall back upon common article 3, “Paradoxically, it can thus be said that in this respect it is common article 3 which ‘develops and supplements’ the Protocol rather than vice versa.”

Article 18(2) appropriately imposes the condition of nondiscrimination in the distribution of humanitarian assistance from the outside; supplies cannot be sent solely to one section of the civilian population and be denied to other groups. But once more, the core issue is that of consent, which is emphatically required. The ICRC commentary suggests that if the survival of the civilian population is threatened, the authorities responsible cannot withhold their consent without good grounds (implying that such action would constitute a violation of article 14). The trouble is that as long as consent is essential, those
authorities can usually find plausible excuses for delaying humanitarian assistance, and even for frustrating it altogether.

UN SECURITY COUNCIL RESOLUTIONS

Occasionally, the Security Council of the United Nations adopts resolutions calling upon the parties to an armed conflict to allow unimpeded delivery of humanitarian supplies to civilians. Such calls must be analyzed carefully. More often than not, they are couched in merely hortatory terms, as recommendations, in which case they do not per se introduce any change in the legal situation. Where relief is contingent on the consent of the parties concerned, consent remains the crux of the issue. Still, at times the Security Council resorts to binding language, citing specifically chapter VII of the Charter of the United Nations (devoted to the maintenance or restoration of international peace and security). Pursuant to article 25 of the Charter, all members of the United Nations must “accept and carry out” the decisions of the Security Council, in accordance with the Charter. It is not entirely clear which decisions of the Council are covered by article 25, but decisions under chapter VII are indisputably binding. Thus, when the Security Council decides to exercise the powers vested in it by virtue of chapter VII, the legal rights and obligations of the parties to the conflict undergo a fundamental transformation; their freedom of action is curtailed.

It is only natural that the Security Council tends to move gradually in this field (as in others), first urging parties (in a nonbinding fashion) to allow unimpeded delivery of humanitarian supplies to civilians, and only subsequently (when its appeal remains unheeded) moving to assert itself under chapter VII in a binding fashion and even imposing sanctions. A good illustration can be found in a series of resolutions of 1992 relating to Bosnia-Herzegovina. The Security Council first adopted Resolution 752, simply calling upon the parties to ensure that conditions be established for the effective and unhindered delivery of humanitarian assistance. Then, the Security Council demanded in Resolution 757—specifically referring to chapter VII—that the parties immediately create these conditions. In Resolution 770, the Security Council—again acting under chapter VII—expressed its determination to create as soon as possible the necessary conditions for the delivery of humanitarian assistance wherever required in Bosnia-Herzegovina. When all else failed, the Security Council decided, in Resolution 781, to establish a ban on military flights in the airspace of Bosnia-Herzegovina, considering the measure to constitute “an essential element for the safety of the delivery of humanitarian assistance.” It is possible to say that in Bosnia-Herzegovina the protection of humanitarian aid became “the de facto raison d’être of the UN mission.”
THE USE OF FORCE TO ENSURE RELIEF

A separate question is whether forcible measures can be used against a state contravening the right to humanitarian assistance (in the specific circumstances in which that right exists). There is a school of thought holding that states may use force at their discretion to coerce a recalcitrant nation to respect international humanitarian law (so-called "humanitarian intervention"). However, "humanitarian intervention is not an exception to the UN Charter prohibitions on the use of force." The Charter prohibits any use of unilateral force in interstate relations, except in circumstances of self-defense in response to an armed attack. The International Court of Justice in 1986, in the Nicaragua case, rejected the notion that forcible humanitarian intervention is permissible on a unilateral basis.

On the other hand, article 39 of the Charter of the United Nations instructs the Security Council to determine when a threat to the peace occurs. Upon concluding that a situation amounts to a threat to the peace, the Security Council is empowered to resort to enforcement action against the state concerned. "[A] threat to the peace in the sense of Article 39 seems to be whatever the Security Council says is a threat to the peace." The Security Council definitely can decide that the deliberate blocking of humanitarian assistance to civilians in dire need of it amounts to a threat to the peace and that an enforcement action is the proper remedy.

Indeed, in Resolution 794 (1992), the Security Council authorized member states to use "all necessary means" to establish "a secure environment for humanitarian relief operations in Somalia." The expression "all necessary means" has become a commonly employed euphemism for the use of force (which indeed followed, in the Somalia case, although success proved elusive).

Pursuant to article 53(1) of the Charter, the Security Council can, where appropriate, utilize regional organizations "for enforcement action under its authority." Article 53(1) does not diminish from the monopoly of the Security Council, as established in the Charter, in the realm of collective security. The legality of the enforcement action by a regional organization is entirely contingent on Security Council authorization. The Security Council can launch or approve a genuine humanitarian intervention, in order to counter breaches of the right to assistance—or of any other norm of international law—that it deems threats to peace. However, no state acting solitarily—or even a regional organization—can arrogate the powers of the Security Council.

In March–June 1999, the North Atlantic Treaty Organization launched a continuous campaign of severe and sustained aerial attacks against Yugoslavia, with a view to compelling a settlement of the issue of Kosovo. It is true that prior to
the attacks, in Resolution 1199 (1998), the Security Council, acting under chapter VII of the Charter, had affirmed that “the deterioration of the situation in Kosovo, Federal Republic of Yugoslavia, constitutes a threat to peace and security in the region.” That affirmation was repeated in Resolution 1203 (1998), also based on chapter VII.15 Resolution 1199 noted a Yugoslav commitment “to ensure full and unimpeded access for humanitarian organizations, the ICRC and the UNHCR [UN High Commissioner for Refugees], and delivery of humanitarian supplies.” The Security Council, alarmed by what it termed an “impending humanitarian catastrophe” in Kosovo, was fully competent to take or authorize enforcement action against Yugoslavia, by identifying a threat to the peace.16 However, absent authorization from the Council, the North Atlantic Treaty Organization had no right to resort to enforcement action. The members of the Organization, individually or collectively, are entitled to invoke self-defense when faced with armed attacks by (or at least from) other states. But when there is no armed attack against a sovereign state, and in the face of humanitarian repression amounting only to a threat to the peace, only the Security Council is empowered by the Charter to use, or to authorize the use of, force.

It is true that the Security Council did not condemn the air campaign in Serbia and Kosovo.17 All the same, inaction by the Security Council does not amount to authorization for collective security measures, even by a regional organization.18 The language of Resolution 1244 (1999), adopted by the Security Council following the agreement between the parties that ended the air attacks, did not imply retroactive ratification of the use of force by the North Atlantic Treaty Organization.19 In any event, the Security Council’s authorization must be sought before, not subsequent to, regional enforcement action.20 Otherwise, a permanent member of the Security Council could “shift the burden of the veto” by acting unilaterally and then blocking any resolution terminating the action.21

It appears that the right to humanitarian assistance—as it exists under contemporary international law—is quite limited in scope. There is no doubt that there is a growing demand by world opinion for extension of the right. Such an extension would require new international legislation, in the form of a new treaty, which in turn should address the problems arising both in peacetime and in time of armed conflict (either international or internal).

It is regrettable that instead of addressing this core issue, the substance of the law of humanitarian assistance, recent debate has focused on the question of enforcement. Humanitarian assistance must not be confused with unilateral or regional “humanitarian intervention.” The moral duty of providing relief to
innocent victims of armed conflict and natural disasters devolves on the entire international community. Enforcement, where necessary, should be authorized by the central organ of that community—the Security Council.

NOTES


2. See Peter Macalister-Smith, International Humanitarian Assistance: Disaster Relief Actions in International Law and Organization (Dordrecht: Nijhoff, 1985), p. 163.


26. Ibid.
27. See Uhler and Courrier, eds. (supra note 6), pp. 321–2.
33. See Uhler and Courrier, eds. (supra, note 6), pp. 246–7.
43. Ibid., p. 697.
46. Ibid., p. 698.
51. Ibid., p. 339.


70. Ibid., p. 249.


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THE GEOGRAPHY OF ECONOMIC DEVELOPMENT

Jeffrey D. Sachs

In the waning days of the Soviet Empire, when the linkages between flagging economic power and the changing state of national security in the Soviet Union were becoming obvious, one story really hit home. It was the story of a gentleman waiting in one of the interminable bread queues in Moscow. Late in the Mikhail Gorbachev era, of course, the lines were getting longer, as the economic chaos in the Soviet Union worsened. Finally the bedraggled Muscovite reached the counter, where the clerk told him, “I’m sorry, we’ve run out of bread.” The poor man exploded. The clerk said, “Now wait a minute, mister. If it weren’t for Gorbachev, you would have been shot for saying something like that.” The Muscovite went home and lamented to his wife, “Dear, it’s much worse than I thought. They’ve run out of bullets, too.”

There was a lot of grim humor in those days, and it has not been much less grim in the last few years. The Russian transformation has been bumpy, to say the least. More accurately, that transformation has been unsuccessful in recent years. This is a topic that I obviously ponder often, having served for two years, 1992 and 1993, as a senior economic advisor to the Russian government. I reflect on what might have been done differently, what we might have advised differently, whether there was another course of action that would have led to a more stable and prosperous society—something that I believe to be in not only Russia’s interest but that of the United States as well.

But before getting to particular times and places, it would be useful to take up a very broad theme—nothing less than global economic dynamics—as a way to understand somewhat the nature of the world economy right now: the ways different regions fit into a fast-changing picture, the real economic struggles that engage most of the world.
Without question, the buzzword of our era is globalization. Some say this term is now so hackneyed as to be without content. In fact, it is a real phenomenon, one that is important for us to understand. But it is also important that different parts of the world fit into this fast, globalizing system in thoroughly different ways and have equally different economic prospects. One part of our analysis, then, is the shape of the world system as it is evolving; there is also the important question of why different parts of the world, different geographies or ecologies, face such different futures in it. Let us start, therefore, with some basic ideas about globalization, and then turn to the differences, which I think is the more interesting subject.

GLOBALIZATION

Globalization is a dynamic process of the economic integration of virtually the entire world. At least four aspects of this increased economic integration are worth bearing in mind. What most of us think of as the first part of globalization is increased international trade. There is no doubt that the role of international trade within any individual economy, and therefore for the world as a whole, has been increasing in importance relative to other kinds of economic activity. A typical measure that economists use is an economy’s ratio of exports or imports to total output—that is, gross domestic product, GDP. If we look at the ratio of either exports or imports to GDP for virtually any economy in the world, we find that it has been rising; in a number of economies it has been rising particularly rapidly in the last fifteen years. On a day-to-day basis, economies today feel the effect of the international system much more heavily than they did forty years ago. Firms increasingly are directly engaged overseas as exporters or importers, and producers are exposed to competition of imports from the rest of the world.

In general, economic theory has taught—and the idea is very much confirmed by the evidence—that this growth in international trade is a source of increased productivity for all participants. Trade, as economists have been emphasizing ever since Adam Smith in 1776, is not a zero-sum game, where one side wins and the other side loses; rather, it is an opportunity for increased diversity of products, increased specialization, transmission of information and technology, and the like, and therefore a positive-sum game. The most obvious aspect of globalization, then, is simply the increased interpenetration of markets through the trade of goods and services.

A second point, one that is absolutely pivotal, is the increased interpenetration of markets by capital flows. Headlines in the last three years about globalization have been much more about capital flows than about trade. We have witnessed a recurring, sharp, and important kind of economic crisis, that is, crises undergone by countries in the process of globalization—a type of crisis
closely linked to the international financial system. We saw them in East Asia beginning in 1997, in Thailand in July, then in Indonesia and Korea. The chaos that continues in Indonesia is rooted not only in geopolitics and local politics but also in the economic collapse that struck the nation at the end of 1997—a collapse clearly rooted in international financial flows. Huge amounts of money poured into Indonesia in the mid 1980s; then, just as suddenly, huge amounts of money flowed out in the fall of 1997. That rapid withdrawal of capital brought down the economy and with it the Suharto regime (which had its own weaknesses, to be sure) and led to cascading political and social change of incredible dynamism and risk.

The third aspect of globalization is the globalization of economic production. Economics textbooks, at least older ones, speak of, say, American products and Japanese products, and give the impression that countries simply trade their products with each other. But international trade today involves more and more not merely the exchange of one nation’s products for another’s but the exchange of products representing work done in ten, twenty, or even thirty countries. This process has become so complex that we can no longer say that this particular car is Japanese or this computer is American; the components are invariably from half a dozen or more countries—two dozen or more in a typical automobile or computer.

What has happened is that an increasing proportion of international production is carried out by major multinational firms. These firms typically locate their headquarters in the world’s wealthiest regions—the United States, the European Union, Japan, in a few cases Korea or Southeast Asia—but their production sites are all over the world. Production itself is a rich logistical process that involves bringing components from one place, shipping them to another, dividing up what economists and business consultants call the “value chain” (itself a process of ever-increasing complexity) and then farming out the individual parts of the production process to areas of comparative advantage. In one region one handles logistical functions; in another region one takes advantage of low wages, in yet another of particular natural resources; and so forth. What this means is that a country’s geographic relationship to major markets is crucial to how it is integrated—or why it is not integrated—into an increasingly globalized production structure. The determination of who wins and who loses, or at least who falls farther behind, is very much determined by geography. The importance of location for economic success has been enhanced by the globalization of production processes.

A fourth and quite fascinating dimension of globalization is the increasing institutional harmonization of economic policies, legislation, and structure. Not only are countries becoming integrated into a web of production, a network
of capital flows, and an international market for goods and services, but they engage in these activities increasingly in a common structure of national and international institutions. By far the most dramatic example of this is the collapse of communism as a rival economic system, followed by the adoption, though as yet incomplete, by most postcommunist countries of imported, or derivative, legal and institutional structures that are compatible with those of the major markets.

There are, for example, 135 countries in the World Trade Organization, created in 1995 to harmonize global trading rules and procedures. Underpinning the World Trade Organization is a corpus of international law setting forth in excruciating detail how international trade is to proceed: what kinds of regulations are fair game, which ones are not, even how sanitary standards can be applied. For example, when can a nation impose trade barriers if it thinks another is violating environmental norms? How should intellectual property standards be enforced? Patent law is now being “harmonized” internationally for the first time. Similarly, countries now regulate the convertibility of their currencies according to standards they accept as members of the International Monetary Fund, a body even more universal than the World Trade Organization.

All this has the effect of making international law without an international government—a highly difficult, challenging, and so far only partially successful venture. There are those in the United States who feel that it is ceding too much sovereignty by allowing international standards to determine what it does. There are others, closer to my own outlook, who feel that such standards are what prevents the rule of the jungle in international economic affairs and that the nation should be striving for such shared agreements. But whatever one’s normative stance, the positive, or diagnostic, view of the world scene is that institutional harmonization—of how markets are organized, how banks are regulated, how food standards are imposed, even how intellectual property rights are organized—is now proceeding faster and is extending over more of the globe, by far, than at any other time in world history. Here we see more than 130 countries announcing that they want to live by a common set of economic codes and standards and to organize their own internal politics and policies according to them.

That encapsulates what globalization is about. It is a very deep process, involving not simply trade but finance, production, and even the rules of national economies and how they relate to each other. What is driving it, and why so dramatically? Several forces are at play, and they are both pervasive and persistent. This phenomenon is not going to disappear because of some local derangement.
The trend is not irreversible, but to knock it off course will take more than a protectionist’s winning an election, or an economic crisis in Colombia, Thailand, or Brazil.

WHY NOW?
At bottom, what is pushing globalization is that most of the world, particularly the developing countries, tried just about everything else first. They have now arrived, by elimination, at the realization that they must join the world economy. This has not been a linear process, in which countries recognized the advantages of participating in the international marketplace and decided to sign up. It has been distinctly nonlinear. During the last 150 to two hundred years, governments went in very different directions.

For most of world history, the vast majority of countries were poor. There was not much variation in economic performance or wealth until around 1800. At that point, one small part of the world took off—the Western European and the North Atlantic nations. There a dynamic process of industrialization built on new forms of harnessing power, particularly steam and coal, and new mechanized technologies. These states—primarily Britain and the United States, for quite a while—so accelerated their economic development that the military imbalances in their favor with respect to the rest of the world became even more marked than they had been for the preceding century or two. That translated, of course, into a very rapid carving-up of the world into the imperial property of, mainly, the European powers.

Why then did not worldwide institutional harmonization come easily? One reason is an interlude of about a century in which Western industrialization produced a profoundly skewed balance of power. Europe now owned a very large part of the world: Africa was completely gobbled up in the 1870s and 1880s, India by 1857, much of Southeast Asia in the 1850s and 1860s, Indochina about that same time, North Africa in the 1830s, and so on.

This state of affairs was thought in 1910 to be the permanent shape of the world (warning us, by the way, that however deep and persistent a state of affairs globalization may be, we should not simply extrapolate). In 1911, a book, The Great Illusion, by Norman Angell, was published in Britain and became famous. Its thrust was that the world economic system was in place: it was owned by Europe, and Europe was the industrial center. While industry would slowly diffuse to the rest of the world, the system was stable. War, Angell argued,
had become so costly and devastating as to be unthinkable. As might be imagined, Angell's book was a terrific best-seller in 1912 and 1913, but it quickly fell off the best-seller list in 1914. What had seemed an unshakable, permanent international system disappeared.

Mr. Angell tried again in 1934, when he wrote another book. This one had quite a realistic hypothesis. In it Angell said, in effect, "I told you so back in 1911. And I was right. War was devastating for our civilization. Human beings sometimes have to learn through experience. Now you've seen it. We are done with this." He proclaimed, again, the end of war in Europe. This book also was soon remaindered, unfortunately. But by 1945, with Europe devastated and war-torn, the end of the imperial era was in sight. Europe had so weakened itself that its imperial holdings of the world soon broke away, in a series of anticolonial wars—India in 1947, Indonesia in 1948, Egypt in 1952, and so on.

What is interesting is that what became known as the "developing world" did not, as it became independent, simply jump to the global system. To understand why not, let us put ourselves in the position of Jawaharlal Nehru, Gamal Abdel Nasser, or Sukarno at the moment of independence. If one has been struggling for decades against British domination in India, and if the first British colonizing power in India had not been even the Raj but the East India Company, a private multinational firm, the idea that the way to sovereignty and development is to open the doors to foreign multinationals might not seem convincing. All over the developing world, a simple logic prevailed: "Look, we are weak, they are strong. They used to own us; we have just got rid of them. We have to develop and industrialize quickly so that we can rebalance power in the world. But we cannot risk inviting them in to do that. What we need is a development strategy that will protect us while we gain our strength."

There were two variants of this strategy—soft and hard. The hard variant, of course, was Bolshevism, as spread first within Russia after the chaos of World War I, then by the Red Army after World War II, and later by imitators in other parts of the world, including the Maoist revolutionaries in China. The softer variant of this strategy was pursued not by one-party socialist-Leninist states but by regimes that chose not to monopolize the means of production but instead to spur industrialization by planting and protecting the seeds of industry—an approach that came to be known as "state-led industrialization."

A third of the world lived under "hard" socialism through the mid-1980s; another 40 percent or so lived under some kind of state-led industrialization. Both failed spectacularly. They failed for reasons that Adam Smith identified in 1776: closing doors means losing access to world knowledge. They lost the ability to tap into world technologies that they would otherwise have acquired through open trade and foreign investment. At the most fundamental level, this is the
biggest problem with any kind of closed regime; the world moves on without you. Conceivably the United States, given its incredible dynamism and inventiveness, could go it alone—but probably not. Certainly for any other country in the world, the vast majority of the technologies needed for development must come from outside. However dynamic a nation is, it can develop only a small fraction of the technologies, manufacturing processes, and capital goods that it needs. International trade and foreign direct investment are absolutely fundamental to any successful development strategy.

Most of the regimes that tried state, and state-led, socialism went bankrupt. Bankruptcy is an interesting process and a systemic one. It could be seen in the nineteenth century when Europe threatened the sovereignty and survival of competitors, like the Ottoman Empire. Those empires usually ended up going bankrupt rather than being defeated militarily. They went bankrupt because when countries fall behind they tend to borrow in order to purchase foreign technology, military equipment, and even mercenary armies, in an effort to rectify the balance. The Ottomans borrowed heavily in the 1850s and 1860s trying to modernize; in the 1870s they went broke. Most of the state-led industrializers and most of the socialist countries (not all—China is a particular exception) did the same and went bankrupt—not morally, economically, or technologically but literally. The Soviet Union ran out of dollars in 1991. Gorbachev, for example, had borrowed about forty billion dollars from West German banks and Western governments between 1986 and 1990, and by 1991 that flow of funds was drying up. The result was hyperinflation, intensification of shortages, weakness and desperation of the regime, perhaps the tempting of the 1991 coup plotters, and the quick downward spiral.

Why did Solidarity emerge as a powerful political force in Poland in 1980?—because Poland had gone bankrupt in 1978. Being somewhat closer to the West, Poland had started borrowing earlier than the Soviet Union, when Edward Gierek instituted reforms in the early 1970s. The financial squeeze came later in the decade, and Polish living standards plummeted. People took to the streets. An electrician, Lech Walesa, jumped the fence at Gdansk’s Lenin Shipyards, and Solidarity was born. Financial crisis was the precursor of political revolution.

Some seventy governments went bankrupt in the 1980s and early 1990s. A famous banker, Walter Wriston, the chairman of Citibank, once proclaimed that countries never go bankrupt; it was, accordingly, part of Citibank’s strategy to lend to countries—in the years before it almost went bankrupt itself. In one
sense, what Wriston said is correct: countries do live on. But it is absolutely a fact that governments can go bankrupt, can find themselves without the funds to pay their bills. This is not a rarity; it happens frequently. It results in part from the great imbalances of economic power that cause countries, especially poor and poorly organized ones, to borrow desperately to offset weaknesses, thereby digging themselves deeper.

This historical excursion answers the question posed earlier: why did globalization start so late, and then so dramatically? After a series of events that started in about 1840, dozens of governments went bankrupt, fairly simultaneously, in the 1980s. They reached a dead end, looked for success stories to emulate, and found one—the incredible economic, financial, and military power of the United States. The American model and its influence quickly assumed such dominance that the reform process itself has become known as the Washington Consensus. Countries have abandoned the failed strategy of closure and are joining the international system.

THE TECHNOCAL REVOLUTION AND GLOBALIZATION

The other deep force at work, aside from globalization, is the technological revolution, which steadily raises the dividends of being part of the international system. Not only is staying out costly, but getting in yields higher and higher returns. The underlying information, communications, logistics, and transport technologies are making it possible for more countries to globalize, and in deeper ways.

Who are the real winners now? They are a handful of developing countries, primarily of Southeast Asia and Northeast Asia, that did not opt for state socialism or state-led development—South Korea, Hong Kong, Singapore, and Malaysia. They went a different way. The way they went, of course, brought them under the U.S. security umbrella; in response, they integrated their economies into the U.S. production system.

Singapore is a classic example. Even in the British Empire, it was a free port. After its independence in 1965, it maintained itself as essentially a free port, strongly linked to American production. Singapore’s strategy was to hook into U.S. industry, mainly in electronics but also to some extent in textiles and apparel, importing components and exporting assembled, integrated products for the American market. Advances in information technology and transport allowed Singapore, although it is halfway around the world, to do this in a cost-effective manner. Singapore has built state-of-the-art port facilities, which turn around containerships in just six hours. Its firms are electronically linked to U.S.-based multinationals. Orders and design specifications are received through computer-aided design and manufacturing systems; firms know
exactly what template to use or which motherboard to install. Computerized data transmission has enabled Singapore’s firms to become deeply enmeshed in the U.S. production process.

These technological developments, especially the widespread use of containerization (computerization and the Internet came much later), made the East Asian boom possible. Without containerization it would not have been possible for East Asia to incorporate itself into the U.S. economy as deeply as it did. Containerization drastically reduced the costs of merchandise shipments, particularly for capital goods, thereby greatly facilitating the globalization of production.

On one side, then, there were failed, old systems. On the other side there was the underlying dynamism of the technologies of global networking in the fields of information, computerization, communication, and transport. The push and pull of globalization has been so compelling that by the late 1980s, it is fair to say, almost no part of the world, and almost no world leader, dared to stay on the sidelines. That is the main reason why we have seen such a dramatic move toward institutional harmonization in the last ten years. These forces are so deep that nothing of less than worldwide impact—not a recession in the United States, or financial crisis in a country or two—is likely to divert them. Events that could undo this process would be of the kind that undid the pre-1914 system and that occurred between 1914 and 1945—a combination of war and profound economic crisis resulting in deep rupture on a global scale. Globalization is not set and assured, but it is moving in a very deep channel, where it is felt strategically by almost all leaders. The presidents and prime ministers of developing countries, even those in the midst of crises, are not asking how to escape globalization or how to protect their countries by closing their economies. They are asking how it can be made to work for them.

THE GEOGRAPHY OF GLOBALIZATION
In some places globalization is working, and in others it is not. What are some of the structural underpinnings of success or failure in this world system? What do they suggest about U.S. economic strategy and about tactics the United States can use to help incorporate countries into the world system, for its interests as well as their own? Are there policies that will make this process more equitable?

Let us start with the crucial fact that globalization is taking place in a world of astounding inequality—the greatest inequality in world history. We can say that with confidence, without having explored every era since civilization began some ten thousand years ago, because, as noted earlier, through 1800 everybody was poor. Not until the last two hundred years did vast inequalities of income
Countries do live on. But it is absolutely true that governments can go bankrupt, can find themselves without the funds to pay their bills. This is not a rarity.

develop, because only in the last two hundred years did industrialization and science-based economic growth emerge.

When it did, a huge increase in the gap between rich and poor arose. In 1820, according to estimates by the leading economic historian of long-term growth, the richest part of the world was Western Europe, with a per capita income of around $1,200. The poorest part of the world was Sub-Saharan Africa, with an income of about four hundred dollars per capita. (These numbers are adjusted to be somewhat comparable to our sense of dollars today in terms of purchasing power.) The ratio was about three to one. Over the course of the next 180 years, Western European income grew twentyfold; in the United States as well, income, in very rough terms, also increased twentyfold. In Sub-Saharan Africa, per capita income grew only threefold; shockingly, that region has only now arrived at something like the income level of Britain in 1820. The gap between richest and poorest has grown to around twenty, or even twenty-five, to one, now, if we take only the very richest countries and the very poorest, the differential is forty, fifty, or sixty to one.

If these income gaps were entirely random, a graphic representation of per capita income in the world would show a random distribution of the rich countries and poorer ones. But in fact there are geographical gradients in the distribution of world income. First of all, there is the basic gradient that virtually all of the rich countries of the world are outside of the tropics, and virtually all of the poor countries are in them. Temperate-zone countries are either rich, socialist and therefore poor now, or deeply landlocked—and maybe also socialist, and therefore deeply in trouble. Except for Singapore and Hong Kong, virtually all of the tropic zone remains poor today. Tropical countries are not necessarily desperately or uniformly poor, but they are poor. Climate, then, accounts for a quite significant proportion of the cross-national and cross-regional disparities of world income.

Another geographical gradient that is quite important is proximity to markets. That has been true ever since Adam Smith wrote. The “name of the game” in international trade, as it has been in world power, often has been naval access. Coastal countries routinely do better than interior, landlocked parts of the world. Even today, despite air, rail, the Internet, and everything else, the largest proportion of international trade still travels by sea. For a landlocked country the cost of moving a container to a port is ferociously high. That is true because it must not only go over land, which is expensive, but cross political borders, which is often even more expensive. Studies conducted by Harvard’s Center for
International Development have consistently shown that proximity, especially political proximity, to the sea is very important. Which are the poorest countries of the world? They are the tropical, landlocked countries: Chad, Mali, Niger, Central African Republic, Rwanda, Burundi, and Bolivia.

There are, then, two major barriers to international development—a climatic barrier and a geographical, or physical transport, barrier. These are real problems, with real implications for the success or failure of globalization. First, the countries that tend to be successful are those that are near major markets; a country that is proximate to major markets and has a coastline is in especially good shape, once it opens up. Let us think about what that means in some specific cases.

For a number of reasons, Mexico and Central America, North Africa, and Eastern Europe fell far behind their developed neighbors, before globalization began. Some were colonized by their neighbors; others absented themselves from the world economy. Some faced physical, geographical, or resource barriers, and some had bad luck. Today, in the age of globalization, new underlying forces are flowing in favor of some of these nations.

Mexico is an example. Certainly, it has experienced serious problems with financial flows—the banking crisis of 1994 comes to mind. Also, its political system is only now in the process of reform, after a long period of one-party rule. But to the north, across the Rio Grande, is the United States, with a per capita income of some thirty thousand dollars; Mexico has a per capita income of three thousand dollars. The result is a powerful force bringing technology and investment to Mexico; that is exactly what is happening. Mexico's economic prospects are quite good; the underlying geography supports its development.

North Africa has been culturally and, for a long time, economically and politically cut off from its northern neighbors across the Mediterranean. Rome and Carthage fought each other more than two thousand years ago; the Christian-Islamic divide prevented the establishment of normal relations for about seven hundred years. But Tunisia, for example, is only about a hundred kilometers away from Italian territory. With Italian per capita income at twenty thousand dollars and Tunisia's at two thousand, there will be a very powerful economic flow between the two countries. Italian firms will take advantage of the income differential by investing in Tunisia; Fiat, for instance, will make automotive components in Tunis and then reexport them to Italy. Indeed, Tunisia is growing quite well right now, as is its neighbor, Morocco. Greek Cyprus, which unlike its Turkish counterpart has not been subjected to a Western European embargo, is booming right now. That is the result of geographic proximity.
Among the transition economies, the most successful are those located along the border of Western Europe. History and culture play roles, but geographic proximity, facilitating trade and investment, is an important factor. The Baltic States are becoming workshops for Scandinavia. Scandinavian and German firms are investing in Estonia to produce components for reexport, thereby raising Estonia's living standards. Poland's boom can be ascribed to geographic proximity. The Czech Republic, Slovakia, Croatia, and Slovenia are experiencing the same phenomenon of proximity. Go inland a thousand kilometers to Moldavia or the Balkans, however, or two thousand kilometers into the heartland of Russia, or five thousand kilometers into Central Asia, and one finds none of that economic pull. Why, after all, would an Italian textile company outsource stitching to Turkmenistan?

The other developmental barrier is climate. Why is climate so important in this day and age? It is because poor countries still face problems that wealthier countries left behind long ago. The tropics pose tremendous difficulties for basic food production. Growing rice or maize in a lowland tropical environment is generally very tough; farmers are plagued by pests, veterinary disease, weak soils, rapid soil erosion, and other environmental barriers. Another profound challenge, particularly in Africa, is health. Diseases like malaria still impose huge economic, social, and health burdens on the tropical world.

A large part of the tropics has been trapped in a vicious circle. The tropics were poorer in the last century than the temperate zones, because of a variety of deep problems. The larger markets in the rich temperate zones supported more research and technological development. Advances pushed income even higher in those zones but could not be readily diffused to the tropics; ecological conditions were too different. Whether in areas of medicine, public health, food productivity, construction, or energy use, the gap widened. Tropical countries experienced a massive brain drain. People with critical skills packed up and went to work in Cambridge, Silicon Valley, or elsewhere, further widening the gap between underlying national and regional capabilities.

Countries that are both tropical and far from markets face the most profound problems. It is in tropical, geographically disadvantaged countries and regions that we see some of the biggest humanitarian challenges and social disasters. It is no accident that genocide took place in Rwanda. Obviously, we must avoid crude geographic determinism, but Rwanda's location poses near-insurmountable problems for economic development. It is plagued by intense crowding, environmental stress, and vast struggles among groups over resources for survival; further, it is without the port that could turn its capital, Kigali, into an export processing zone and otherwise contribute to economic development.

These ecological and geographical factors are very important and deserve greater attention from analysts and policy makers alike. Countries that are
favorably located generally tend to make it, unless their politics are so deeply skewed as to pose a fundamental barrier—and there are such cases. We have not yet begun to address the implications of the profound problems that tropical countries and landlocked regions represent for international economic institutions, foreign assistance programs, and the way we think about development.

This is obviously a mixed assessment. For significant parts of the world, there is reason for considerable optimism. Despite all the wonders of globalization, however, serious risks remain for others. Not all of the world will be fruitfully touched by the processes of globalization.

For even the "proximate" countries—the ones blessed by geographic location, with the wind at their backs—the process of escaping from the damage of the past, from weak institutions, from economic atrophy, and from financial bankruptcy remains a heavy burden. They must meet the challenges both of catching up and of successful transformation. Not all manage, and when governments go bankrupt, societies cannot function. One of the legacies of the last fifty years is bankrupt governments all over the world. We sometimes use that fact tactically, as a lever by which friendly governments can be kept in place, or by which regimes can be controlled and manipulated. That approach is a mistake. At the edge of bankruptcy, even the consolidation of political power sufficient to maintain internal order is in jeopardy. American foreign-policy makers trying to work with "difficult" countries find that things explode in their faces. Things seem to be going fine, just before a quite dramatic collapse of authority and civil power. At the roots of these collapses often lie economic problems, problems severe enough to pull down governments and therefore open the way to anarchy.

What this means is that in our approach to globalization, we need a sensitivity to geography, to climate, to the history of how we got where we are, and to the financial and political struggles of countries. If we adopt this broader view, we can more effectively ensure that much more of the world will partake of the unbelievable bounty that modern science and technology provide.
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Intelligence (1989), Leaders and Intelligence (1988), Strate-
gic and Operational Deception in the Second World
War (1987), Clausewitz and Modern Strategy (1986),
Weak States in the International System (1981), and
The Diplomacy of Surprise (1981).

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Even the most creative theories in history were not conceived in a vacuum; one way or another, they owe something to the works of others. To describe this intellectual and intuitive process, historian of science I. B. Cohen has developed a concept called “the transformation of ideas,” which reveals how great scientists have used the existing body of knowledge as a basis of or catalyst for their own inspiration.\(^1\) Scientists such as Isaac Newton and Charles Darwin, for example, either synthesized and combined the work of others, while adding their own ideas, or were heuristically stimulated by existing ideas to develop their own original concepts. The same is true of those whose creative and analytical thought processes have “transformed” the intricacies of strategy—in this case, naval strategy—into an innovative theory or body of work. It is well known that Alfred Thayer Mahan, as he himself made clear, was significantly influenced by Baron de Jomini’s work and that Sir Julian Corbett was equally influenced by Clausewitz’s On War.\(^2\)

My argument is that while Mahan integrates and synthesizes Jomini’s work with his own, Corbett uses Clausewitz’s On War as a heuristic point of departure. Mahan, in other words, remains loyal to Jomini’s ideas, and by extension, those of the “continental strategists.” In contrast, Corbett, although inspired by On War, develops ideas different from and sometimes contradictory to those of Clausewitz. The subtle approach adopted by Corbett ironically resembles that of a work he had never read—Sun Tzu’s The Art of War.\(^3\) In view of the limited space available, I will focus on two of Corbett’s most original ideas, which also provide excellent illustrations of the differences between naval and land-based warfare: namely, his positions on “the concentration of force” and “limited war.”
Let me first, however, say a few words on what Corbett and Clausewitz do have in common. To begin with, Clausewitz and Corbett share a belief in the primacy of politics in war and in devising an appropriate strategy to protect the national interests. Clearly, Corbett independently understood the importance of the primacy of politics before reading On War in 1904, but Clausewitz’s ideas did help him to clarify this idea. Corbett also believes in studying and developing the theory of war for educational purposes. His debt to Clausewitz on this score is made clear in his chapter on “The Theoretical Study of War—Its Use and Limitations” (Some Principles, pp. 3–11). Herein he adds that such study will establish a “common vehicle of expression and a common plane of thought . . . for the sake of mental solidarity between a chief and his subordinates” (Some Principles, pp. 8, 5).

Corbett also agrees with Clausewitz that since even the best theory of war is “not . . . a substitute for judgment and experience,” it cannot “systematize” strategy into an exact science (Some Principles, p. 10). At best, theory can ascertain what is “normal”—but war, with its reciprocal, uncertain, and complex nature, is dominated by deviations from the norm (Some Principles, pp. 8–9). Friction, chance, and luck must never be discounted as well. Corbett therefore resembles Clausewitz in his repeated emphasis on the importance of understanding both the value and inherent limitations of a theory of war.

“Strategical analysis can never give exact results. It aims only at approximations, at groupings which will serve to guide but will always leave much to the judgment” (Some Principles, pp. 83–4). With the constantly changing nature of war (more so in Corbett’s time, because of the accelerated development of new technologies and weapons at sea), the first question that either man would ask is, What is the nature of this war?  Much more could be said about the similarities between the two, but let me now turn to a discussion of their differences.

Corbett’s most glaring criticism of Clausewitz, the continental strategists (for instance, Jomini), and most British naval strategists of his time concerns their “big-battle fixation.”  Most of Corbett’s contemporaries were content to accept this crude and highly selective version of Clausewitz’s ideas, because it conveniently supported their own beliefs. This was a major component of the Napoleonic style of war, which consisted of a “strenuous and persistent effort—not resting to secure each minor advantage, but pressing the enemy without pause or rest till he is utterly overthrown.”  (Corbett believes that the origin of what he terms Clausewitz’s fetish for the decisive battle could be traced back to Oliver Cromwell [Some Principles, pp. 22, 157, 176].)  The search for the decisive battle is closely related to Clausewitz’s principle of destruction and achievement of victory through the greatest possible concentration of forces at the decisive point. Clausewitz presents the idea thus:
Combat is the only effective force in war; its aim is to destroy the enemy's forces as a means to a further end. . . . It follows that the destruction of the enemy's forces underlies all military actions; all plans are ultimately based on it, resting on it like an arch on its abutment. . . . The decision by arms is for all major and minor operations in war what cash payment is in commerce. . . . Thus it is evident that destruction of the enemy's forces is always the superior, more effective means, with which others cannot compete (On War, 1.2, p. 97).

We do claim that the direct annihilation of the enemy's forces must always be the dominant consideration. We simply want to establish this dominance of the destructive principle (On War, 4.3, p. 228).

The maximum concentration of forces was indeed the key to winning the decisive battle and overthrowing the enemy: Clausewitz, Sun Tzu, Jomini, and all of the other continental thinkers would agree that this is the most important principle of war. Clausewitz puts it this way: "As many troops as possible should be brought into the engagement at the decisive point. . . . This is the first principle of strategy" (On War, 3.8, p. 195); also, "The best strategy is always to be very strong; first in general, and then at the decisive point. . . . There is no higher and simpler law of strategy than that of keeping one's forces concentrated" (On War, 3.11, p. 204).

Corbett does not believe that the concentration of naval forces at sea is the highest and simplest law of strategy. On the contrary, he observes that the principle of concentration has become "a kind of shibboleth" that has done more harm than good (Some Principles, p. 134). The principle of concentration is "a truism—no one would dispute it. As a canon of practical strategy, it is untrue" (Some Principles, p. 160).

The crude maxims as to primary objects which seem to have served well enough in continental warfare have never worked so clearly where the sea enters seriously into a war. In such cases, it will not suffice to say that the primary object of the army is to destroy the enemy's army, or that of the fleet to destroy the enemy's fleet. The delicate interactions of the land and sea factors produce conditions too intricate for such blunt solutions. Even the initial equations they present are too complex to be reduced by the simple application of rough and-ready maxims (Some Principles, p. 16).

In view of his strongly held opinions, it is not surprising that Corbett expends much effort to prove his point. Indeed, his refutation of the principle of concentration at sea produces some of his most creative and original ideas in Some Principles of Maritime Strategy. Furthermore, the process of developing these original ideas embroiled Corbett in a vitriolic debate with some of the leading military theorists and naval experts of his time. This most assuredly did nothing to enhance his reputation, since the subtlety of his ideas destined them to be
misunderstood. For example, Lord Sydney later accused him of exerting a negative influence on the doctrine, plans, and morale of the British navy, thereby contributing to their failure to achieve decisive results in the battle of Jutland.7

Mary years later, Cyril Falls charged Corbett with "minimizing the importance of combat."10 Despite a barrage of criticism, Corbett steadfastly refused to change his strategically "blasphemous" conclusions.

Corbett's first argument was that superior concentration at sea cannot necessarily force a major engagement, because it is easier for the enemy's fleet to avoid battle at sea than it is for an army to do so on land. Paradoxically, the greater the concentration achieved by one's own fleet, the more likely the weaker opponent is to avoid battle. Only through dispersing, or rather pretending to disperse, its fleet can the stronger navy lure the enemy into battle: "If we are too superior, or our concentration too well arranged for him to hope for victory, then our concentration has almost always had the effect of forcing him to disperse for sporadic action" (Some Principles, p. 138).

Paradoxically, therefore, only less concentration (or the appearance thereof) will lead to a major battle.11 Moreover, concentration at sea is problematic for other reasons as well. The more a navy concentrates, the fewer the sea lanes of communications and the less space it can secure and control. "Concentration, in fact," Corbett notes, "implies a continual conflict between cohesion and reach" (Some Principles, p. 132). A corollary of this point is Corbett's argument that complete or full concentration at sea is impossible, because from the very beginning of the conflict, a substantial number of ships must be diverted for protection of such vulnerable interests as overseas trade and other resources. "The more you concentrate your force and efforts to secure the desired decision, the more you expose your trade to sporadic attack" (Some Principles, p. 160; also pp. 128–52, 155–61). Superior concentration thus not only deters the weaker opponent from seeking battle but presents him with an opportunity to attack his enemy's exposed national lines of communication.

Superior concentration of naval forces creates yet another serious problem. The greater the concentration of a fleet, the more difficult it is to conceal its whereabouts and movements. "Once the mass is formed, concealment and flexibility are at an end" (Some Principles, pp. 131, 138). Here Corbett is making an additional argument, much like Sun Tzu's, for the need to keep one's own dispositions "shapeless" in order to avoid disclosing one's intentions. Sun Tzu states:

It is well known that Alfred Thayer Mahan, as he himself made clear, was significantly influenced by Baron de Jomini's work and that Sir Julian Corbett was equally influenced by Clausewitz's On War.
The ultimate in disposing one's troops is to be without ascertainable shape. Then the most penetrating spies cannot pry in nor can the wise lay plans against you. It is according to the shapes that I lay plans for victory, but the multitude does not comprehend this. Although everyone can see the outward aspects, none understands the way in which I have created victory (The Art of War, p. 100).

Corbett also believes that calculated dispersion and "shapelessness" create unexpected combinations and surprises that bring victory. "War has proved to the hilt that victories have not only to be won, but worked for. They must be worked for by bold strategical combinations, which as a rule entail at least apparent dispersal. They can only be achieved by taking risks, and the greatest and most effective of these is division" (Some Principles, p. 134). Elsewhere, he further emphasizes the same point:

The next principle is flexibility. Concentration should be so arranged that any two parts may freely cohere, and that all parts may quickly condense into a mass at any point in the area of concentration. The object of holding back from forming the mass is to deny the enemy knowledge of our actual distribution or its intention at any given moment, and at the same time to ensure that it will be adjusted to meet any dangerous movement that is open to him. Further than this our aim should be not merely to prevent any part being overpowered by a superior force, but to regard every detached squadron as a trap to lure the enemy to destruction. The ideal concentration, in short, is an appearance of weakness that covers a reality of strength (Some Principles, p. 152; also p. 206).

Unlike Clausewitz but very much like Sun Tzu, Corbett underscores the relevance of deception in the achievement of concentration at the decisive point. For Corbett, concentration is not simply amassing the largest number of ships, as Mahan or Clausewitz would advocate; instead, it means manipulating the enemy's perceptions so that he will fight on his (Corbett's) terms. Sun Tzu describes it thus: "Those skilled at making the enemy move do so by creating a situation to which he must conform: They entice him with something he is certain to take, and with lures of ostensible profit they wait for him in strength" (The Art of War, p. 93).

Consequently, Sun Tzu's approach can be described as negative, in the sense that he considers the division and distraction of the enemy to be more important than maximizing the concentration of his own forces.12

At this juncture, some other notable similarities between Corbett and Sun Tzu should be mentioned. Corbett develops his theoretical insights against a broad background; in other words, he is interested in the diplomatic alliance systems and coalitions formed before and during a war, and he is concerned with the economic and financial dimensions of waging war as well as with the technological and material aspects of war, which were of no interest to Clausewitz.
(Clausewitz wrote On War before the industrial revolution, which triggered an ever-accelerating rate of technological changes.) Corbett also agrees with Sun Tzu that the intelligent strategist must fight only on his own preferred terms and exploit his comparative advantage. As Sun Tzu puts it, “Therefore the clever combatant imposes his will on the enemy but does not allow the enemy’s will to be imposed on him” (The Art of War, p. 42); “And therefore those skilled in war bring the enemy to the field of battle, and are not brought by him” (The Art of War, p. 96).

Corbett’s preference for a limited war of a particular type in a particular place, and his preference for the strategic (though not operational and tactical) levels are all part of his search for the comparative advantage of Britain—or that of any other nation in similar circumstances. This is a critical part of all strategic planning, which Sun Tzu and Corbett emphasize but Clausewitz seems to ignore. Perhaps the search for a comparative advantage is only valued by the weak, or by naval powers obliged, with limited resources, to protect a vast empire or fight a formidable land power.

Another important approach shared by Corbett and Sun Tzu is their desire to win at the lowest possible cost. Since this entails taking minimum risks for maximum gains, their theories are dominated by the constant search for low-cost victories and force multipliers. The principal lesson Corbett drew from Britain’s strategy in the Mediterranean during the War of Spanish Succession was that it revealed “how an intelligent, if limited, appreciation of sea power to a tender diplomatic situation could produce results out of all proportion to its real physical potential.” He learned a similar lesson from the British naval war against Napoleon, wherein thirty thousand soldiers at the Downs forced Napoleon to tie down three hundred thousand men from the National Guards to defend the French coast (Some Principles, p. 69). Elsewhere, Corbett points out that the effect of British amphibious threats to use small contingent forces to invade the continent or to divert enemy forces to the coast “was always out of all proportion to the intrinsic strength employed or the positive results it could give. . . . Its value lay in its power of containing [a] force greater than its own” (Some Principles, p. 67).

Convinced that an economy of force was a dangerously false economy, Clausewitz instead preferred to focus on the effectiveness of force—that is, on the outcome, not the cost. “Since in war,” he says, “too small an effort can result not just in failure but in positive harm, each side is driven to outdo the other” (On War, p. 585). Clausewitz’s conception of a true economy of force was not (as Sun Tzu, Corbett, or modern compilations of the principles of war would argue) to win at the lowest possible cost but rather to make use of all available forces regardless of the cost (On War, p. 213). Corbett and Sun Tzu also share a belief in the indirect
approach, which relates to the search for comparative advantage, economy of force, surprise and deception, and limited war. (Unfortunately, a detailed comparison of Corbett, the British style of warfare, and Sun Tzu cannot be attempted here.)

Unlike Clausewitz, Jomini, and the other continental strategists, Corbett was not infatuated with the search for the decisive battle or with the need for the strategic offensive. In general, he favored the strategic defensive, with an emphasis on the offense at the operational level. As a result, his detractors mistakenly thought that his comments pertaining to the strategic level of war were referring to the lower levels. Corbett’s strategy is based on rational, unsentimental calculations, not on vaguely romantic obsessions with the brilliance of Napoleon or Nelson. Again, like Sun Tzu, Corbett was generally opposed to taking unnecessary risks in war, whereas Clausewitz believed that the military genius, led by his intuition, must be defined by his readiness to take significant risks. “Boldness in war . . . has its own prerogatives. It must be granted a certain power over and above successful calculations. . . . In other words, it is a genuinely creative force . . . . A distinguished commander without boldness is unthinkable” (On War, pp. 190–2). Corbett certainly values boldness as an essential leadership quality, but he concludes that careful calculations and strategic creativity should govern all actions.

Since the bravado and daring inherent in bold action naturally held greater appeal for most of Corbett’s critics, his sagacious observations on the strategic advantages of the defense were interpreted as signs of passivity and poor fighting spirit.15 Upon closer examination, Corbett’s strategic defensive is found to employ such measures as an intense local offensive, the projection of land forces, various types of blockades, and raids on enemy trade routes. Moreover, Corbett recognizes that once the enemy has been sufficiently weakened on sea and on land, the shift to the strategic offensive should not be delayed. Yet the cult of the offensive so dominated the thinking of his contemporaries that the essence of Corbett’s outwardly controversial message was not really heard. As a strategist, Corbett is more concerned with the question of how to obtain certain objectives than he is with the form of a particular war.

According to Corbett, naval strategists must accept the fact that war at sea is not usually a zero-sum game, since it is rarely possible to achieve full command of the sea.
[It is erroneous to assume] that if one belligerent loses the command of the sea it passes at once to the other belligerent. . . . The most common situation in naval war is that neither side has the command; that the normal position is not a commanded sea, but an uncommanded sea. . . . The command is normally in dispute. It is this state of dispute with which naval strategy is most nearly concerned (Some Principles, p. 91).

Consequently, Corbett was not unduly concerned about this issue, probably because he was confident that the Royal Navy would gain command of the sea soon enough. This "relaxed" attitude certainly clashes with Clausewitz's concept of war as the aggressive application of force to end disputes as soon as possible. For Clausewitz, clarity is the objective, decisive action the means; the very idea of tolerating an ongoing dispute or a "shared sea" would be repugnant. As one who also sought the clarity of a decisive battle, Mahan shared Clausewitz's impatience with such ambiguity.

Yet is achieving the desired concentration and winning the decisive battle worth the cost? Clausewitz, Jomini, Mahan, and the continental strategists would all reply in the affirmative. Inflicting a decisive defeat allows the victor to "compel [the] enemy to do [the victor's] will." Clausewitz's own view is not, however, simplistic: he knows that even the most decisive victory is only a necessary, not a sufficient, condition for accomplishing the winning state's long-run objectives. "In war," he warns, "the result is never final" (On War, p. 80). By this he means that the military gains secured in battle will not last unless political leaders and diplomats offer the vanquished side peace terms that are acceptable in the long run, and also make a concerted effort to establish common interests between the former foes.

The search for a decisive victory does not, however, have the same allure for Corbett. As a naval strategist, he believes that since "men live upon the land and not upon the sea, great issues between nations at war have always been decided—except in the rarest cases—either by what your army can do against your enemy's territory and national life, or else by the fear of what the fleet makes it possible for your array to do" (Some Principles, p. 16). In short, a decisive victory at sea is so rare that it is not normally worth the effort. At a time when all other naval strategists agreed that Nelson's victory at Trafalgar had been exemplary, Corbett reasoned that such adulation was undeserved. After all, he points out, the strategic results of the great sea victory had been indecisive as far as the war against Napoleon on the continent had been concerned, and Nelson may have taken too great a tactical risk.

Trafalgar is ranked as one of the decisive battles of the world, and yet of all the great victories, there is not one which to all appearance was so barren of immediate result. . . . It gave England finally the dominion of the seas, but it left Napoleon dictator of
the continent. So incomprehensible was its apparent sterility that to fill the void a legend grew up that it saved England from invasion.  

Clearly, Corbett was not trying to enhance his popularity as a naval strategist when he wrote these words, however objectively sensible, of national and naval “heresy.” For Corbett, then, an “open” or “closed” blockade; the threat of a “fleet in being”; and the naval support of land operations by transporting, supplying, and landing army troops in combined operations were the “bread and butter” of naval operations and the essence of naval strength. As mentioned earlier, his stubborn adherence to this unpopular position in his work as well as in his lectures at the Royal Naval War College, Greenwich, later sparked accusations that his strategic theory underlay the failure of the battle of Jutland. Surely Corbett thought that Jutland was unnecessary, that without a decisive victory it simply confirmed British naval superiority and put the German High Seas Fleet out of the picture for the remainder of the war. However, even a decisive British victory in the battle, as in the case of Trafalgar, was unlikely to have had more than a negligible impact on the land war.

Corbett’s development of the concept of limited war provides us with another good example of his creative contribution to strategic theory in general and naval strategy in particular. The theory of war expounded by Corbett has little in common with its heuristic starting point, namely, Clausewitz’s concept of limited war as set forth in On War. Corbett’s new concept of limited war also enables us to see how the naval perspective could breathe fresh insight into a strategy that had been ignored or misunderstood by the continental strategists.

First, a brief word on Clausewitz’s concept of limited war is in place. For most of his intellectual life, Clausewitz was chiefly interested in the study of total, or absolute, war. This reflected his personal as well as the Prussian experience with the wars of the French Revolution and Napoleon. His ideal type of war was indeed unlimited in scope; any lesser effort meant lost effectiveness in proportion to its deviation from the inherent, true nature of war. With the defeat of Napoleon, the restoration of the European balance of power, and the development of Prussia’s strategic problems, however, Clausewitz gradually recognized the existence of a type of limited war that was, in reality, much more common than total war. In this type of limited war, the enemy’s army was no longer the center of gravity, and the optimal strategy was not a search for the decisive battle.

Clausewitz’s discovery of the prevalence of limited war in turn led to the evolution of his concept of the primacy of politics. The absolute or total war has, in theory, its own logic and momentum, which is in reality subject to the constraints imposed by the political interests of the state. Vital interests call for an
unlimited war effort, while secondary interests justify no more than a limited investment of resources and effort. Thus, the importance of the belligerents' stakes in a war as defined by their political leaders, as well as their reciprocal interaction, determines whether the war remains limited in scope.

A second reason to limit the effort expended in war concerns the relative strength and means available to the belligerents. Nevertheless, if insufficient resources or strength were the only reasons for limiting a war effort, the "operational theory of war" or other nonpolitical factors would be enough to determine whether a war should be limited or expanded. Clausewitz's explanation of the theory of limited war and the primacy of politics provides the crucial missing dimension for such determinations. Even if he had not made this "discovery," Clausewitz might still have begun to appreciate the prevalence of limited war, by viewing it as a function of insufficient means to wage all-out war. Nevertheless, his later recognition of limited war was based primarily on political considerations. In a truly limited war as defined by the political authorities, weak motivation to fight is enough to fetter the war effort of an otherwise stronger state. Thus, the degree to which a war will be limited is, in the end, determined by political and military considerations of relative strength. 18

Clausewitz also distinguishes between defensive and offensive limited wars. Limited war normally occurs when the defending side has no incentive to go to war or when a weaker side is attacked by the stronger one. In such instances, the defense allows the passive or weaker side to wage war at the lowest possible cost while stalling until the opponent gives up, allies come to assist, or the defender can move over to the attack.

If a state's objectives are confined to the acquisition of a relatively small amount of territory, for annexation or bargaining purposes, it pursues a correspondingly limited war. At times a limited offensive can take a preemptive form, in order to forestall an enemy attack or secure a better forward defensive position. Clausewitz also concludes that limited offensives strengthen the attacker if the territory thereby acquired is adjacent to its own—but they can actually weaken the attacker if the same territory is noncontiguous. In addition, Clausewitz argues that if an offensive leaves the attacker's own territory vulnerable to a counterattack, the would-be attacker is better off preserving territorial integrity than acquiring territory of marginal value.

Another special type of limited war identified by Clausewitz drew Corbett's interest as well: a situation in which one state assists another in making a limited contribution to a common cause. This involves sending

a moderately-sized force [to] ... help; but if things go wrong, the operation is pretty well written off, and one tries to withdraw at the smallest possible cost. It is
traditional... for states to make offensive and defensive pacts for mutual support—though not to the point of fully espousing one another’s interests and quarrels. Regardless of the purpose of the war or the scale of the enemy’s exertions, they pledge each other in advance to contribute a fixed and usually modest force.... It would all be tidier... if the contingent promised... were placed entirely at the ally’s disposal and he were free to use it as he wished. It would then in effect be a hired force. But that is far from what really happens. The auxiliary force usually operates under its own commander; he is dependent only on his own government, and the objective the latter sets him will be as ambiguous as its aims.... The affair is more often like a business deal. In the light of the risks he expects and dividend he hopes for, each will invest about 30,000 to 40,000 men and behave as if that were all he stood to lose.... Even when both share a major interest, action is clogged with diplomatic reservations, and as a rule the negotiators only pledge a small and limited contingent (On War, p. 603).”

After summarizing Clausewitz’s (and Jomini’s) discussion of limited war (Some Principles, pp. 41–51), Corbett asserts that Clausewitz “never apprehended the full significance of his [own] brilliant theory. His outlook was still purely continental, and the limitations of continental warfare tend to veil the fuller meaning of the principle he had framed.” Corbett then suggests that since Clausewitz’s death had doomed his theory to a perpetually unfinished state, he (Corbett) would adapt Clausewitz’s theory of limited war “to modern imperial conditions, and above all where the maritime element forcibly asserts itself... with its far-reaching effects for a maritime and above all an insular Power” (Some Principles, p. 52). In the process of brilliantly adapting Clausewitz’s theory to the unique circumstances of naval warfare, particularly to the needs of British strategy, Corbett actually developed his own innovative theory of limited war in maritime strategy.

Corbett undoubtedly intuitively understood the nature of this subject from his own historical research, but Clausewitz provided him with, first, the ideal expression, “limited war,” and, second, the conceptual framework for a nascent theory that did not emphasize all-out war in search of a decisive battle. This gave Corbett the impetus to make the transition from the “higher,” continental, unlimited form of strategy to its “lower,” maritime, limited form. Corbett’s original—not derivative—theory not only transcends that of Clausewitz but also adds an important new dimension to naval strategy. While Corbett was convinced that death alone had kept Clausewitz from eventually reaching the same conclusions, it is unlikely that Clausewitz would have progressed along these
lines without direct experience in maritime warfare or familiarity with naval or internal history (see endnote 18). Corbett himself mentions that although Jomini wrote a chapter on "Or Great Invasions and Distant Expeditions," his "entirely continental thought had failed to penetrate the subject" (Some Principles, p. 56).20

From his naval and broader imperial perspective, Corbett found Clausewitz's theory of limited war marred by its narrow, continental focus (Some Principles, p. 54). He therefore began to construct his own ideal paradigm of limited war, at first by exposing the weaknesses of Clausewitz's argument. The first of his two main points is that in wartime conditions on the continent, as opposed to those in the maritime and imperial environment, wars were fought mostly between adjacent states. This, in Corbett's opinion, made escalation almost inevitable. "Such territory is usually an organic part of your enemy's country, or otherwise of so much importance to him that he will be willing to use unlimited effort to retain it" (Some Principles, p. 54). This critique holds true as far as it goes, but Clausewitz cannot be accused of neglecting the question of escalation; in fact, he was acutely aware of the inherent tendency of war to escalate.21 Corbett's second point is that in wars between contiguous continental states "there will be no strategical obstacle to his [the enemy's] being able to use his whole force" (Some Principles, pp. 54-5). In other words, the nature of continental war makes it difficult to limit political aims, because one or both states are able to use all of the means at their disposal to protect the inevitably threatened vital interests. A nation fights a maritime and imperial war not on contiguous territory but overseas or in remote, peripheral areas that do not threaten the other belligerent's vital interests. Thus, escalation in this environment is not unavoidable, because the opponent can limit his political aims or escalate according to his own discretion.

Another crucial difference between continental and maritime warfare is that in the maritime environment, the dominant naval power can isolate the theater of war to prevent the introduction of enemy reinforcements as well as secure its home defense. As Corbett demonstrates, this means that the conditions for the ideal limited war exist only in maritime warfare and can only be exploited by the preponderant naval power: "Limited war is only permanently possible to island Powers or between Powers which are separated by sea, and then only when the Power desiring limited war is able to command the sea to such a degree as to be able not only to isolate the distant object, but also to render impossible the invasion of his home territory" (Some Principles, p. 57).

As long as its navy is strong enough to protect its home from invasion, an island naval power enjoys a unique advantage that Sun Tzu would have appreciated.22 From this invulnerable position such a navy can, at its own discretion, project its limited land power while preventing the enemy from doing the same. Even if a naval power is weaker in absolute terms, it can not only hold its own but
also use its power overseas to compete with more powerful land powers. This, in Corbett’s estimation, was the secret of British power; it explained how “a small country with a weak army should have been able to gather to herself the most desirable regions of the earth, and to gather them at the expense of the greatest military Powers... It remained for Clausewitz, unknown to himself, to discover that explanation, and he reveals it to us in the inherent strength of limited war” (Some Principles, pp. 58–9).

In reality, Clausewitz’s theory cannot claim credit for this explanation of the expansion of British power. This can be attributed solely to Corbett’s own development of a new form of limited war in the unique maritime environment. Clausewitz’s theory describes a defensive limited war necessitated by a state’s limited ambitions or weakness, while Corbett’s demonstrates how limited strength, coupled with a suitable strategy and a particular set of circumstances, can be used to expand the power of the state. For Clausewitz, as we know, the decision to wage a limited war was first and foremost a political one (which can also depend on the availability of means). Corbett takes his theory of the ideal-type maritime limited war one step farther, as a new method of war. In doing so, he moves away from political considerations and concentrates on the most effective use of limited means, by grafting his own ideal type of the true limited war onto Clausewitz’s concept of “war by limited contingency” (On War, p. 603). The result is an integrated theory of combined naval and land operations, one that allows a small but effective naval power (under the ideal conditions described above) to maximize the effectiveness of the limited means at its disposal. The success of such a “war by limited contingency” hinges upon “the intimacy with which naval and military action can be combined to give the contingent a weight and mobility that are beyond its intrinsic power” (Some Principles, pp. 62–3). This is a case where the result achieved is truly more than the sum of its parts.

Another advantage of “war by limited contingency,” in which one deploys a “disposal force,” is that even if all fails, the possible gains outweigh the risks entailed (Some Principles, p. 69). When availing itself of this method, a state has the choice of fighting with either limited or unlimited means. Indeed, in the Peninsular War, which provided the perfect conditions for a “war by limited contingency,” Britain had applied “the limited form to an unlimited war. Our object was unlimited. It was nothing less than the overthrow of Napoleon. Complete success at sea had failed to do it, but that success had given us the power of applying the limited form, which was the most decisive form of offence within our means” (Some Principles, p. 65). While the continental version of “war by limited contingency” invariably escalates into an unlimited form, the maritime (British) version can remain limited (Some Principles, p. 66).
Obtaining “unlimited” results with limited force—the type of force multipler found in Corbett’s paradigm of the ideal limited war—can of course be identified with the theory of Sun Tzu, who says, “Thus the potential of troops skillfully commanded in battle may be compared to that of round boulders which roll down from the mountain heights.” According to the commentators Chang Yu and Yu Mu, this means that “the force applied is minute but the results are enormous,” and “one needs . . . but little strength to achieve much” (The Art of War, p. 95).

Thus, Corbett ultimately devised a particular method of using maritime power that Clausewitz could not have considered. This method is admittedly relevant for only a small number of naval powers, but those to whom it applies can parlay their limited resources into the attainment of ambitious political objectives without risking escalation or defeat (Some Principles, p. 77). Corbett likens this aspect of his concept to the advantages enjoyed by the defense, which “sometimes enable an inferior force to gain its end against a superior one.” The drawbacks of the defense do not, however, apply here. Limited war allows the naval power to maintain the initiative both on the strategic and tactical levels, depending on the circumstances. Under the favorable conditions of Corbett’s ideal limited war, the naval power can assume an offensive posture almost immediately (on the tactical or strategic levels) without exposing itself to unacceptable risks. This type of transition would take much longer to accomplish in continental warfare. Corbett then concludes that “the limited form of war has this element of strength over and above the unlimited form. . . . The point is of the highest importance, for it is a direct negation of the current doctrine that in war there can be but one legitimate object, the overthrow of the enemy’s means of resistance, and that the primary objective must always be his armed forces” (Some Principles, p. 74).

Having thus aroused the suspicion of his contemporaries with his praise of limited war and with the implied passivity of equating it with the defense, Corbett makes a painfully obvious attempt to reassure his readers. To the statement that all forms of war “demand the use of battles” he adds that achieving favorable circumstances for the ideal limited war depends first on the overthrow of the enemy’s naval forces (Some Principles, pp. 86–7). Corbett’s theory is also the answer to the chimerical search for the decisive battle, in that he uses the “lower means” of war to secure the positive results necessary for an eventual move to the “higher form” if necessary.

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In The Development of Military Thought in the Nineteenth Century, Azar Gat describes Some Principles of Maritime Strategy as “an etude on Clausewitz.” This
statement entirely underestimates Corbett's originality and contribution to strategic theory. Clausewitz's *On War* was an invaluable basis and stimulus for Corbett's theoretical work—but not its blueprint. For example, Corbett did not hesitate to take issue with Clausewitz on the importance of the search for the decisive battle and the principle of concentration. The fact that Corbett believed these factors to be far less relevant at sea was a daring departure from the accepted wisdom of his time. In developing his theory of limited war, Corbett again used *On War* as his point of departure but ended up with his own, unique method of waging a limited war in a maritime environment. By inclination and through the influence of the British style of warfare, Corbett has more in common with Sun Tzu than with Clausewitz.

As a counter-factual, we might ask whether Clausewitz would have made any changes in *On War* had he read Corbett's principles of naval strategy. The answer, I believe, is a qualified yes. It would have apprised him of the contribution of naval power to continental warfare, perhaps inspiring him to add a chapter on the "pure" maritime limited war and some exceptions to the principle of concentration in naval war. Moreover, it might have provided him with some incentive to discuss the economic and financial aspects of war, including economic blockade, as part of attrition warfare.

While Mahan's theory is a good example of the theory of war at sea as influenced by the classical theory of land warfare, Corbett's theory arrives at some original insights that contradict the conventional wisdom of the continental strategists. Is Corbett's work as important or original as that of Clausewitz? Clearly not. *Some Principles of Maritime Strategy* is more repetitive and parochial than *On War*, and it focuses on the narrower aspects of British maritime strategy. I cannot judge Corbett's place among naval historians, but I believe that he belongs at the top of the second tier in the pantheon of classical strategic theorists.

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As an afterthought, it is interesting to note that in the age of modern airpower, Corbett's theory of limited war can acquire a degree of relevance perhaps exceeding that which its author envisioned. Today, the sustained projection of airpower, combined with the use of precision guided munitions, presents conditions that fit Corbett's requirements: namely, a remote overseas battlefield that can be isolated by naval superiority and that allows the projection, insertion, and removal of land forces at will. The sustained command of the air—together with day and night fighting capabilities and long-range, precision firepower—can create the isolation necessary for a limited war in any region of the world. This scenario would, however, require complete air superiority as well as
the continuous projection of airpower for a prolonged period of time. The projection of land power would, in this case, be supported by air or naval power (instead of by naval power alone). Modern airpower can extend its reach beyond that of the old naval power concept, because it depends far less on uniquely advantageous geographic conditions. The isolation of a chosen battlefield could be achieved artificially by precision fire from the air. Such use of airpower could work in a conventional war (as in Korea, for example), but not in guerrilla-type warfare. Such isolation of the battlefield was almost achieved in the Korean War, although airpower could not then be used both by day and night, nor was long-range, precision guided firepower available.

Although such a strategy could not work in the Vietnam War, because of the nature of guerrilla warfare, it performed quite well in the milieu of the Gulf War. Current and future military technologies will therefore, under ideal conditions, be able to isolate artificially a battlefield for implementation of Corbett’s “limited contingency war” concept.

NOTES


5. See Clausewitz, On War, pp. 88–9; and Corbett, Some Principles (paraphrasing Clausewitz), pp. 5–6, 17–8, 27–8, and chap. 2, p. 31ff.


7. Although Clausewitz indeed emphasizes the importance of the decisive battle, all other things being equal, he also points (as does Corbett) to the great risks and costs involved, and he mentions alternative methods. However, when Clausewitz does emphasize the destruction of the enemy, he is not always referring to physical destruction alone but also to psychological and moral destruction as well (see On War, 1.2, p. 97).

8. This is Clausewitz’s “principle of continuity.”


10. Schurman, Education of a Navy, p. 174 n (referring to Cyril Falls, The Art of War: From the Age of Napoleon to the Present Day.
11. In On War, Clausewitz recognizes a similar phenomenon on at least one major occasion. Napoleon concentrated such a formidable invasion force against Russia in 1812 that he caused the Russians to withdraw rather than fight. Had he concentrated a small, less obviously superior force at the outset, the Russians might have accepted battle on or close to the border, thus enabling Napoleon to win through superior generalship.

12. See chapter 1, "Estimate": "When he is united, divide him" (p. 69). See also chapter 6, "Weakness and Strengths": "If I am able to determine the enemy's dispositions while at the same time I conceal my own then I can concentrate and he must divide. And if I concentrate while he divides, I can use my entire strength to attack a fraction of his" (p. 98). Further, on the same page, "The enemy must not know where I intend to give battle, i.e., if he does not know where I intend to give battle he must prepare in a great many places. And when he prepares in a great many places, those I have to fight in any one place will be few."


15. In the conclusion of his study of the Russo-Japanese War (1904–1905), Corbett notes that the Japanese navy never lost its offensive spirit despite its predominantly defensive role. His last sentence reads: "It is here, then, if anywhere, in this enduring capacity to withstand the demoralizing influence of a prolonged defensive, that the Japanese showed upon the sea, at any rate, a distinctly higher genius for war than their enemy."


18. Clausewitz's analysis of limited war as defined by its political objectives (or national interests) on the one hand and by the available means (or limitation of resources) on the other, can be described by four possible combinations. The first, which is limited in terms of both politics and resources, indicates a war that does not involve any major interests and is fought either defensively or to gain some minor bargaining advantages. It follows, then, that only very limited means would be dedicated to its execution. The second type of war, although unlimited in its political objectives, is subject to the constraints imposed by limited resources. This could be a weaker state fighting for vital interests or a war on a particular front that is part of a larger unlimited war (e.g., Wellington's campaigns in Spain, in which a limited British contingent fought for an unlimited objective—the overthrow of Napoleon and the restoration of the European balance of power).

The third type is limited by its political objectives. Although the war might involve the vital interests of one state, it does not involve the vital interests of the other. None of the belligerents intends to win a decisive, total victory. Yet despite these limited political objectives, such a war can often involve the expenditure of unlimited resources. The Russo-Japanese War of 1904–1905 and the Vietnam War are good examples. With its limited and well-defined political objectives, Japan neither intended nor expected to overthrow Russia; yet by the end of the war Japan had nearly exhausted its human, financial, and material resources. In the Vietnam War, the United States never intended to overthrow North Vietnam but ended up spending vast amounts of resources on the war effort anyway.

The fourth type represents the ideal type of an unlimited, or total, war. This involves attaining unlimited objectives, such as the overthrow of the enemy, and the corresponding use of all available resources. Although this kind of war might be waged initially by one side alone, its nature would normally force all other participants to do so as well. Typical of Napoleonic strategy, this "higher form" of war achieved its most extreme manifestation in the First and Second World Wars. As Clausewitz points out, the frequently occurring transitions from one type of war to another reflect the reciprocal nature of war and the way in which one belligerent's decisions affect those of his opponent.
the decision to wage a limited war of one type or another would often require a tacit or explicit agreement by both sides, escalation from limited to unlimited war can be dictated by one side alone.

19. For a direct discussion of limited war in On War, see Note of 27 July 1827, pp. 69–71; Book 1, chap. 1, pp. 87–8; Book 6, chap. 30, pp. 501–21; Book 7, chap. 16, pp. 548–50; and Book 8. The issue of limited war as limited by means is, by implication, discussed throughout the book. Corbett summarizes Clausewitz’s theory of limited war in Some Principles of Maritime Strategy, pp. 41–51.


21. Clausewitz made it clear that “transitions from one type to the other [i.e., from limited to unlimited war] are likely.” On War, Note of 27 July 1827, p. 69.


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SET AND DRIFT

BUILDING A BEEHIVE OBSERVATIONS ON THE TRANSITION TO NETWORK-CENTRIC OPERATIONS

Captain George Kasten, U.S. Navy

Conceptual changes always provoke institutional resistance. Some see network-centric operations (NCOs) as a high-speed train that will ultimately determine the size and shape of future naval forces. Others think NCO could derail important programs that they believe in. There are also concerns that monumental resource allocations could be pinned to such a new and undeveloped concept. This debate occurs at a time when there is already fierce interservice and intraservice competition over the relevance and prioritization of existing and programmed platforms.

There are big bets to be placed. Is NCO the right horse? The short answer is yes. Of course, there is much uncertainty. NCO will be the product of many interacting forces. The resulting complexity will make its final form as unpredictable as long-range weather. NCO will both shape and be shaped by the character of future warfare and the development of our strategic culture, as well as by the reactions of potential adversaries to our developing style of fighting. That is why NCO should be allowed to evolve without the constraints of a precise script that would enslave it to inevitable errors in the details.

The information age has set off an avalanche of fundamental change throughout society. The best-studied effects are still unfolding in the transformation of the economy. For decades, people have been thrilled, made apprehensive, enchanted, or unsettled, but always dazzled, by the pace of technological change. Below the surface, however, lost in the commotion of new discoveries and gadgets, something much more significant has been emerging—a new economic order. Because of networking, the basic rules of economic behavior have been turned inside out. New laws of increasing returns describe effects that either had not occurred previously or were masked by incorrect industrial-age assumptions. During the
Industrial Age, economics, warfare, and other human behaviors were radically transformed. The current transformation promises to be equally momentous.

The central issues of this paper are introduced below; each is further developed later in this discussion. Consensus on these issues can facilitate a smooth transition to network-centric operations.

**High Stakes.** NCO will be the essential tool of future naval expeditionary operations. What is not so clear, however, is whether it will appear on schedule or within the specifications of any grand plan.

**NCO Is Too Big and Too Complex.** Complex adaptive systems emerge or evolve over time after the resolution of innumerable trade-offs related to technologies, societies, economics, people, and the environment—all under conditions of irreducible uncertainty. The key to the Navy’s transition to NCO will be to set favorable initial conditions and establish simple rules and to avoid hopeless attempts to prescribe the final design.

**NCO Will Change Our Military’s View of Things.** When considered in the context of NCO, age-old questions of warfare will lead to different conclusions about doctrine, platforms, training, and culture. This is evidence that NCO should be placed in a separate hierarchy, which is not in competition with programs and infrastructure (including platforms) which are really subset issues. Since some subset issues require long-lead decisions and resource commitments, there is some urgency for moving ahead with NCO.

**Immediate Value and Paybacks.** An important feature of NCO is that while it is being implemented, it promises immediate benefits in small-scale, littoral operations. Unlike futuristic initiatives that require large investments and decades of development time, NCO can enhance the combat effectiveness of current forces. As it evolves, NCO will become a significant factor in large theater operations.

**Sensors Are the Biggest Obstacles to NCO.** NCO depends on networked sensors, people, and weapons. Sensors are currently out of sync with the progress of communications and weapons. This major flaw could obstruct the maturation of expeditionary warfare, which again is cause for urgency.

**Expeditionary Sensors Are Different.** Historical models are unlikely to produce the sensors that will enable NCO and sustain viable expeditionary forces. The Navy must field new devices that break the constraints of platform-sponsored and mounted sensors. In parallel, the Navy must also ensure that expeditionary needs are included in national sensor-development criteria.

**Expeditionary Sensors Should Be Funded.** The defense industry excels at the design and construction of complicated things like high-technology sensors, and
the short-term payback for fixing sensor deficiencies is large. The Kosovo bombing campaign offers a straightforward justification for financing sensors that will restore, or boost, the combat performance of current platforms. "Better sensors along with improved processing and dissemination capabilities are needed to provide a capability to counter any future adversary."

**Given the Right Conditions, NCO Will Take Care of Itself.** As a concept, NCO is vague, and as a program it would be too big for funding in the traditional sense. There is a better way. It is fortunate that complex systems can evolve without too much attention (engineering) from us.

**HIGH STAKES**
Network-centric operations constitute a tool or a means to conduct warfare in the information age. NCO exploits the new, simultaneous technological leaps in sensors, networked communications, and precision weapons and in their application to the problems of expeditionary warfare. The net result should be an unprecedented ability to influence directly events on land from the sea. Furthermore, these developments take place at a time in history when the world's military problems increasingly arise in scales and locations that lend themselves to expeditionary operations. To some, the Navy's role may appear to be less glamorous and focused than during the Cold War years. The value and utility of U.S. forces may rise or fall in this new environment; however, relative to other U.S. services, naval expeditionary forces are poised to become especially relevant. Naval warfare is certainly not a sunset industry. NCO is the essential tool that will allow naval forces to shoulder increased responsibilities and fulfill their potential.

W. Brian Arthur of the Santa Fe Institute compares high-tech business decisions in the information age with an imaginary and extreme form of casino gambling in which the features of the event (including its rules, stakes, and players) do not emerge until the game unfolds.

Above all, the rewards go to the players that are first to make sense out of the new games looming out of the technological fog. Bill Gates is not so much a wizard of technology as a wizard of precognition, of discerning the shape of the next game. You cannot optimize in the casino of ill-defined games. You can be smart. You can be cunning. You can position. You can observe. But when the games themselves are not even fully defined, you cannot optimize. What you can do is adapt. Adaptation, in the pro-active sense, means watching for the next wave that is coming, figuring out what shape it will take, and positioning the company to take advantage of it.

The "next wave" for the Navy is NCO.
NCO IS TOO BIG AND TOO COMPLEX

There are only two paths that lead to a network-centric navy: it can be engineered, or it can evolve. The correct choice depends solely on whether the network-centric Navy is a “complicated system” or a “complex adaptive system.”

Engineered systems are built, often to a complicated plan with detailed specifications that reduce a system to simple, manageable parts and subsystems. Complex adaptive systems, in contrast, grow from simple specifications and eventually achieve a highly complex form in response to positive and negative feedback between the system’s components, and between the system and its environment. When the nature of complex adaptive systems is understood, it becomes clear that NCO is beyond the scope of the most sophisticated engineering methods. While it is true that some components must be engineered and built, the network-centric Navy must evolve and grow.

A complex adaptive system, like a beehive, is an emergent system, with its own identity and with characteristics that result from the interactions of many agents. There is no bee in charge, and no bee understands the nature of the hive. The behavior of a hive, tornado, rain forest, or stock market cannot be predicted by the complete scientific knowledge of a single agent. Similarly, the network-centric Navy will have apparent behaviors, properties, and capabilities that are very different from what might be predicted by a study of its small parts.

Until recently, human agents have been nearly as uninformed as bees in their practical understanding of how survivable adaptive systems come into being. Ingrained by several hundred years of successful linear, cause-and-effect experiences, human agents are inclined to think they are capable of designing something as complex as a network-centric navy. This misunderstanding may result in unnecessarily high risks and large penalties.

Engineering methods have led to very successful and complicated systems, like the modern aircraft carrier and the submarine-based component of the U.S. strategic nuclear deterrent force. Indeed, many components of NCO, particularly sensors, communications links, and weapons, will be engineered systems. It is important that the engineered portions of NCO be limited to enabling functions, such as engineering protocols and standards that foster reliability, security, compatibility, and adaptability. Finally, the engineered components must be flexible and responsive to changing requirements as the larger NCO system evolves.

Engineered systems are optimized systems. System optimization usually focuses on achieving desired qualities like low cost, high speed, or stealth, for example. However, the problem is that the final optimized product is likely to be short-lived in utility, or fail completely, if required to perform under conditions for which it was not created. In nature, evolved complex systems tend to be
messy, with redundancies and extra structure that engineers would eliminate if given the chance. The primary purpose of this apparent messiness is survivability, which is achieved through a form of parallel processing that tries all possibilities at the same time and keeps track of all the best results, rather than the few for which human design might try to optimize.

A fitness landscape graphically depicts the many states available to a complex system. On a three-dimensional plot, high-performance, advantageous solutions are represented by local peaks on the landscape. There are many peaks, some better than others, but it is often impossible to predict one's relative fitness with certainty. To further complicate matters, even if a choice could be made to occupy one of the best peaks, the landscape of a complex system is constantly changing. A peak can quickly erode to become a valley, as the environment (culture, adversaries, technology, etc.) continues to change, both independently of and in response to the U.S. military posture. This is how the world works in truly complex biological, business, and military systems.

**A FITNESS LANDSCAPE**

"Finding a solution, or a peak, is not difficult. What evolution in nature, and evolutionary programs in computers excel at, is hill climbing to global summits, or the highest peaks around, when the terrain is rugged with many false summits."

Fitness landscapes are abstract, and their utility is at best difficult to establish. It is quite possible to never know if the emerging network-centric Navy missed a global peak. The best that can be done is to ensure that an unbiased, evolutionary path is followed as closely as possible, putting faith in the scientific integrity of evolutionary processes. By choosing an evolutionary (vice engineering) approach, the probability is maximized that the "big bet" will be a winner.
NCO WILL CHANGE OUR VIEW OF THINGS
The issue of NCO should be separated from the competitive struggle to define the
size, structure, and organization of the “Navy after Next.” As elements of NCO be-
come available and routine within U.S. forces, they will provide the context for
many important questions—profound questions that will require new thinking if
the Navy hopes to take full advantage of the next wave. Some examples are:

- What will the impact be on fixed, heavily defended, or high-risk targets if
  they are attacked with precision naval “fires” instead of by tactical aircraft?
  What alternative missions will the aircraft execute, and how will that
  change the pace of conflict?

- How will important targets be found, as they become increasingly mobile
  or concealed? The enemy will not present itself in mass formations in front
  of U.S. firepower. Affordable sensors are needed to perform the dangerous
  work of discovery, and eventually they will do so with remarkable precision
  and speed. If abundant, low-cost sensors are built and deployed to find
  mobile targets, will there be enough sea-based launchers or tactical aircraft
  to deliver timely fires? Will tactical forces be authorized to engage these
  targets freely?

- What will be the impact of dispersed and unmanned airborne vehicle
  (UAV) sensors on the capability, safety, or effectiveness of naval
  expeditionary forces? How will NCO alter the political and military value
  of ground forces? If a special-forces team or a company of Marines can
detect and monitor enemy movements and activities in its vicinity and then
depend on tactical air support at distances that exceed time-of-flight
requirements for sea-based fires, then surely the calculus of mission
accomplishment versus risk and casualty avoidance (including risk from
friendly fire) will be dramatically altered.

- Will smaller, faster, networked ground forces make it possible to better
  accomplish missions that are currently attempted only with large, heavy
  forces? To what extent is the current insistence on overwhelming numerical
  superiority driven by the need for self-protection in the face of uncertainty?

- One physical characteristic of modern warfare is the high rate of fire. Will
  high rates of fire still be required if precise and timely targeting
  information is available to complement the smart weapons?

- Logistical estimation and planning seem bent on sustaining rates of fire
  appropriate to attrition-based warfare. What are the logistics implications
  of precision fires based on a robust sensor and targeting network? Will the
  logistics burden shift from munitions to sensors?
• Will improved combat effectiveness make leaders more likely to use military force in the belief that casualties and collateral damage are less likely? Perhaps the deterrent effect of these increased capabilities will reduce the need for actual armed conflict. What conditioning factors will produce either outcome for U.S. military forces in the information age?

• It is expected that networked warfare will proceed with increased speed and intensity, producing effects that extend across both operational and strategic domains. What measures of effectiveness can be used to evaluate U.S. capabilities against adversaries and guide commanders in their assessments of a conflict in progress?

Because of NCO, questions like these will require new ways of thinking about warfare at the operational and tactical levels. They illustrate some of the sweeping changes that have already begun to alter the Navy’s fitness landscape. Since many of the conclusions could portend changes that require long lead-times, the Navy should expedite the implementation of NCO to ensure that long-lead issues will be studied in the best possible context.

**IMMEDIATE VALUE AND PAYBACKS**

Military strategists are sometimes accused of planning and spending for the worst-case and least likely scenarios. Given the difficulty of accurate forecasting and the gravity of failure in war, however, it would be negligent to do otherwise. It is usually assumed that military forces will be adaptable enough to handle any lesser and included scenarios, down through operations other than war. The programs, plans, and preparations are usually big, but most U.S. military activities are scaled down before action. Conditioned by this methodology, some mistakenly assume that NCO must start out as an all-encompassing system aimed at the worst case, major theater war (MTW). A plan to build such a system capable of fighting on an MTW scale would require a resource commitment that threatens numerous military programs and organizations.

Network-centric operations, however, are different. Since NCO is about how people organize and interact, it will be scalable from the bottom up. Its highest payback is likely to result from its leverage in smaller conflicts, where it is very difficult to reconcile high operational risks and relatively low national security interests. Finally, due to the current U.S. military preponderance, it would appear that the nation will have a decade or two of breathing space in which to nurture and expand NCO capabilities before any MTW conflict is likely to erupt.

An additional incentive for the aggressive implementation of NCO is that it will be an important force multiplier—even in the near term, as early elements of NCO are introduced in the fleet. Some technical elements of the future NCO
force, precision munitions and UAVs, have already seen combat. In Kosovo, improvised target localization by UAVs enabled high-altitude air attacks against ground forces with minimal risk. In short, a new sensor input linked to the information grid enabled forces to address a tactical problem that was largely precluded by adverse environmental conditions and risk-avoidance policies. These results should be further analyzed and projected to larger-scale operations.

SENSORS ARE THE BIGGEST OBSTACLES
While it continues to enjoy a substantial margin of conventional military superiority, the United States should pound away at its current most glaring deficiency—the inability to find and attack dispersed targets under such adverse conditions as rain, harsh terrain, and enemy deception. Sensors, because they are today’s greatest deficiency, and because of tomorrow’s absolute dependence on them, are the common thread between the “Navy of Today” and the “Navy after Next.”

The obstacles to sensor solutions are immense because they are both programmatic and cultural. Sensors have long been integrated with platforms. Independent sensor programs are perceived to be in competition with platforms for funding and missions. Yet in the face of new and affordable technological threats to platforms, U.S. forces must not continue to pretend they will be allowed to sail or fly sensors on manned platforms to wherever they are needed in a modern battlespace. Offboard sensors may have presented a threat to manned platforms in the past, but in the future they will likely be the essential enabling factor that saves them from obsolescence. Viewed in this way, there will still be programmatic competition for funding, but progress should be possible when sensor and platforms missions are brought into coalescence. Both are essential elements of NCO.

EXPEDITIONARY SENSORS ARE DIFFERENT
Several general properties of effective sensors are critical to their successful employment: they must be affordable, available, and suitable for expeditionary operations. The uniqueness of expeditionary warfare and its special demands on the sensor system require further explanation.

“Expeditionary” is the defining quality of U.S. naval forces. Today, when an air strike against a distant target may be launched from the continental United States, it is important to understand that power projection by any single means does not qualify as expeditionary. Instead, an expeditionary force provides a flexible complement of military tools that can be speedily applied to a wide spectrum of situations and crises.
The expeditionary tool-set includes air strikes, but other tasking as well, from humanitarian assistance to air, ground, sea, or cyberspace forces in high-intensity combat. Expeditionary operations are constrained both in geography (size and location) and duration. Geographical size limitations are obvious; theaterwide expeditionary warfare is rarely discussed. U.S. forces deploy theaterwide in peacetime, however, because forward presence is the entry fee for early and meaningful access to potential adversaries in the event of conflict. An explanation of the limited duration quality of expeditionary warfare is that the force must be capable of sustaining its operations either to deter conflict, fight to victory on its own, or gain a military foothold and hold the line until less mobile, heavy ground and air forces can be brought into position. Another time-related point is that expeditionary forces are best used early in a crisis, when initial conditions are often not fully understood and the likelihood of surprising events is high. They must be versatile and adaptable to limit the adverse effects of being surprised.

Despite the constraints of geography and duration, there are few restrictions on the intensity of expeditionary warfare, except those that could be imposed by default if the United States failed to organize, train, and equip its forces adequately. Such a failure could render U.S. forces unusable if the adversary is willing to risk high levels of violence.

The expeditionary sensor capabilities necessary to support such a range of activities are substantial. The United States is averse to prolonged attrition warfare and avoidable collateral damage, and expectations in those respects have been raised for future conflicts. The practical utility of expeditionary forces increasingly depends on precision munitions. Better sensors are urgently needed so that aim points for these munitions can be generated for both fixed and mobile targets throughout the battlespace. Specifically:

- National sensor systems optimized for wide-area cueing will not do. Systems that depend on remote-site interpretation or analysis will not succeed if analysts cannot relate the data to the highly fluid context of expeditionary operations. The expeditionary commander and his subordinate forces must be able to adjust the focus, or granularity, of their expeditionary sensors to achieve sufficient situational awareness at all levels.

- To be affordable, reconnaissance and surveillance cannot be limited to a few expensive systems, such as space-based sensors. Existing
microtechnologies should point the way for production of abundant, even disposable, sensors.

- A premise of forward presence is that access to a potential battlespace is developed and refined through peacetime operations, constituting an essential precondition for rapid attainment of operational superiority in conflict. Therefore, expeditionary sensors should be continually in service with all deployed forces, so that the transition to warfare is nearly transparent to the operators. Ideally, in war, the only additional step might be to press a "launch" button. If the naval commander's sensor requirements are to be met, that commander must control them, regardless of which military branch builds or operates the hardware. Even with the best of intentions, beware the difficulties if the supporting organization does not understand the requirement for twenty-four-hours-per-day, 365 days-per-year support to forward-deployed forces.

- A naval expeditionary force requires a flexible system that can change rapidly from routine peacetime operations to open conflict. During peacetime, the sensors must function within the constraints of territorial airspace and sea limitations. In war, the sensor system should smoothly expand to include more intrusive sensors as necessary, to give the commander's networked forces sufficient situational awareness to rule the battlespace.

As effective sensors are introduced, tactical forces will adapt and innovate to use them in ways that enlightened planners could have never prescribed. The creativity of personnel at the operational level should never be underestimated. It would be wise to put robust sensor-to-shooter tools in their hands and then take good notes while they develop and explore the possibilities.

This is not to trivialize the significant work to be done by cross-disciplinary studies based on exciting new efforts in the fields of complexity, chaos, and self-organization. The new sciences will enable significant results on several levels. First, they will assist in the design of system interfaces to present timely and useable information without overwhelming the operators. They will help determine where best to locate the complexity and decision-making elements in naval systems. The theoretical rigor to be gained from these efforts will be as important to warfare in the information age as the study of thermodynamics was to the development of new, efficient engines in the Industrial Age. At a higher level, the new sciences promise broad understandings of warfare. The capability of U.S. forces will be greatly amplified when they are networked, but the most dramatic increases in combat power will come from new ways of thinking about warfare. Since warfare is a complex, adaptive system, clarification and
control of the very forces that determine its outcome will produce high payoffs. In short, the goal is to focus on the adversary's high-leverage points with unprecedented peac and intensity, to produce effects that directly impact the adversary's will to fight.

EXPEDITIONARY SENSORS SHOULD BE FUNDED
The national defense system is conservative and risk averse. It is not likely that such a system will easily permit a radical departure from the past, especially for a concept, since, by definition, concepts are incomplete and lack formal proof. The defense system is responsive to competition, however, in that it will generally recognize threats to its relevance, and it permits incremental commitments to concepts or systems that preserve or restore that relevance.

The 1999 operations in Kosovo, for instance, presented a serious challenge to the military's relevance. Regardless of how one interprets that "victory," there was still an undeniable sense of helplessness over the difficulty of dealing with dispersed forces on the ground. It would be unconscionable to ignore this wake-up call, possibly to find U.S. forces in a future conflict with higher national security interests at stake but the sensor gaps unchanged. This is a compelling reason why new sensors should be funded and aggressively developed.

NCO WILL TAKE CARE OF ITSELF
NCO will not be substantially funded, at least in the near term, because as a concept it is too vague, and as a large-scale system it is probably unaffordable. Yet even if cost were no object, it would be a major mistake to view NCO as a completed thought, or as a well-defined program ready to fund, construct, and control. The Navy should accept this and, without breaking stride, grow (vice build) a network-centric force. One appealing aspect of NCO is that tremendous combat advantages could accrue from the synergy of self-organization. If this is true for networked warfare, it should also be credible for the Navy's transition to network-centric warfare. NCO will take care of itself, if it is allowed to evolve through a self-organizing process.

Recall from the fitness landscape metaphor that the ultimate aim is to find a global peak, where fitness, adaptability, and survivability are maximized. In nature, and in computerized artificial intelligence simulations, the proven strength of the evolutionary process lies in its ability to test and compare all possible solutions in parallel and provide feedback of these results to the system. There will always be irreducible uncertainty about the outcomes of complex processes, but evidence everywhere corroborates the fact that evolutionary paths produce the best complex systems. The key to a successful transition to the
network-centric Navy lies not in a clear vision of the future but in the Navy's ability to identify and follow an unbiased, evolutionary path.

A coherent strategy is required in order to set the evolutionary process in motion. Some suggestions:

- There is an important role for naval leadership in biological evolution, genetic information "constrains the self-organizing process to those options which have a high probability of success." Naval leadership must perform a similar function, keeping the learning process alive and the Navy's evolution on a path toward continuous, unbiased creativity.

- To unleash the transition process, start by fixing the sensors. The expeditionary qualities of sensors must be further refined and articulated. Currently available technologies must be leveraged to expedite sensor solutions.

- Continue current efforts to ensure that communications are sufficient, secure, and widely compatible.

- Let the fleet's incremental implementation of sensor and network technologies become an expeditionary-warfare laboratory. Over time, fleet participation will allow many possible solutions to be tested and compared. Encourage, reward, and document fleet experimentation.

- Assess fleet experiments through the lens of new, developing systems-analysis tools and feed the results back into the process. Make the best results prominent (publish them as doctrine and tactics) and allow less useful practices to become extinct.

From complexity theory, it is clear that long-term predictability is an impossible illusion. There is no clear relationship between cause and effect, except over the short term.

Ralph Stacey states that "members of an organization, no matter how intelligent and powerful, will be unable to predict the specific long-term outcomes of their actions. They may specify any specific long-term state they wish to or have any dream, fantasy, or vision they like, but they will never be able to determine the sequence of actions required to actualize them. They may have whatever intention they like, but they will never be able to realize it."

If this is true, what then is the role of leadership in a complex organization? Stacey argues that instead of hopelessly striving for a specific long-term outcome, managers should use their leadership style and power to influence a set of "control parameters" that determine whether their organization will be creative and innovative. "We can identify causal links between control parameters and organizational dynamics. In principle, we can design creative organizations and
The key to a successful transition to the network-centric Navy lies not in a clear vision of the future but in the Navy's ability to identify and follow an unbiased, evolutionary path.

These are exciting times. Every sailor and Marine has an opportunity to be part of something significant, since transformations of this magnitude—from an industrial-age navy to an information-age navy—rarely occur. This particular transition will happen only once. It is still early enough in the process for a thoughtful strategy that promotes an evolutionary and creative approach to NCO to improve substantially the probability of success in this "big bet."

During the evolutionary shift to a network-centric force, the Navy will acquire valuable tools to deal with the disproportionate risks of today's smaller conflicts. It will also learn how to scale its new skills to encompass a large, complex operational spaces. In the end, we will have built a beehive.

NOTES

3. Relative to other instruments of national power (i.e., economic, cultural, political), sometimes referred to as "soft power."
5. Beehive and ant-colony analogies are often-cited examples of self-organizational behavior.
in biological systems, whereby individual actions are guided by simple rules yet lead to very complex results.


7. Stripped down, these are timeless questions in the annals of military thought. It is hoped the reader will excuse the deliberately leading manner in which they are presented. The significance of NCO is better appreciated when it becomes clear how likely it is to lead to conclusions about U.S. military operations that are different from current practices and beliefs.


11. Ibid., p. 217.
IN MY VIEW

A SOUND INVESTMENT

Sir:

Regardless of the merits of Capt. Mark Johnson's well-written piece, "The Coast Guard Alternative" (NWCR, Winter 2000), the fact remains that the Coast Guard is unable to keep up with the missions it already has, because of a lack of funds and decrepit equipment.

It is sad that while the United States ponders financial and military aid to Colombia and arms deals to Taiwan, the Coast Guard is relegated to plying America's coastal waters in thirty-year-old cutters and aging aircraft. The situation has deteriorated so much, in fact, that Coast Guard commanders have cut back their operations by as much as 16 percent in an effort to save wear and tear on equipment and personnel, both of which have been stretched to the limit.

Perhaps the Coast Guard's capabilities should be modernized before its mission is expanded any further. In fact, the Coast Guard has undertaken its largest acquisition effort, to do just that. Called the Deepwater Program, it will provide the service with upgraded equipment and a means to tap into the technology it needs. For example, Bath Iron Works, part of the industry team in the Deepwater effort, is one of the nation's premier shipbuilders and the lead designer and builder of the Navy's Aegis-equipped Arleigh Burke-class destroyers. Such advanced radar systems would give back to the Coast Guard its edge in the drug-interdiction effort.

While any recapitalization effort is expensive, the Coast Guard has proven time and again that it is a sound investment for the nation. In 1999 alone, the Coast Guard seized more money in drugs than its own annual budget of four billion dollars. Syracuse University's Maxwell School recently named the Coast Guard one of the best managed and most fiscally responsible federal agencies.
But the bottom line is this: the Coast Guard is one of the nation's most visible means of defense along American borders, and as such it deserves a financial—and moral—commitment from the Congress and the White House to ensure it remains fully mission capable in the years ahead.

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REVIEW ESSAYS

KENNEDY'S CHOICE THE SKYBOLT CRISIS REVISITED

Myron A. Greenberg


In any examination of Anglo-American relations, it is useful to recall that when former secretary of state Dean Acheson reflected on the subject, he found there precious little room for sentimentality: "Of course a unique relation existed between Britain and America—our common language and history insured that. But unique did not mean affectionate. We had fought England as an enemy as often as we had fought by her side as an ally."

To the degree that such a perspective challenges the comfortable conventional wisdom on the Anglo-American "special relationship," students of national security policy and statecraft will welcome the long-awaited publication of Richard Neustadt’s study of the Skybolt missile crisis: Report to JFK.

Skybolt was no minor crisis, and although most of its drama was played out behind the scenes, it was a severe testing of wills and statesmanship at a critical moment of the Cold War. Skybolt is particularly important because it offers a rare view of the Anglo-American nuclear relationship in all its complexity.

The crisis centered around the attempt by the United States to divest Britain of its independent nuclear deterrent by canceling the Skybolt missile program in December 1962 at the Nassau Conference. Skybolt was not a bomb but a nuclear air-to-ground missile, a stand-off weapon that could penetrate Soviet airspace in relative safety. Skybolt would extend the life of Britain’s deterrent,
which had consisted only of free-falling hydrogen bombs. Skybolt had been solemnly promised to British prime minister Harold Macmillan by President Dwight Eisenhower in a Camp David agreement of March 1960. In return, Britain was to make available bases on the west coast of Scotland to the U.S. Navy for its Polaris missile submarines.

The severity of this crisis may be judged by the monumental failure of American policy to divest Great Britain of its independent nuclear capability, when measured against the trump played by the British at Nassau. It was there that Prime Minister Macmillan persuaded President John Kennedy to scuttle his own policy involving the cancellation of the Skybolt missile program and instead agree to deliver Polaris missiles to Britain under sovereign British control.

From President Kennedy's perspective, American policy had brought about that which it had endeavored so mightily to prevent, at almost any price: British acquisition of a second-generation, sovereign, independent nuclear deterrent that could now rest on two pillars—the V-bomber and the Polaris ballistic missile submarine (SSBN). Kennedy saw this course as an "original sin," and he requested Richard Neustadt, then a White House consultant and a professor at Columbia University, to undertake a confidential study, a postmortem on the crisis. Kennedy wished for an absolutely impartial analysis of what had gone wrong. As Neustadt put it, "JFK wished to draw lessons from his own experience... so the Report remains what it was on November 15, 1963 [when it was submitted], written for a single reader." Neustadt's candor, then, is indeed the unique feature of this book.

President Kennedy was particularly fortunate in selecting Richard Neustadt for this task. Neustadt had served in the Truman White House and as a consultant already possessed the necessary security clearances for the assignment. But more than that, he was discreet. He was not a journalist, for whom a byline meant everything, but a scholar willing to prepare his work exclusively for the president and accept its consignment to oblivion afterward. Neustadt shows himself to be that rare political scientist who grasps the existential reality of what C. P. Snow terms "high politics." One example is Neustadt's observation that "only in the memoirs of participants does one get glimpses now and then of operational reality." Sir Francis Bacon himself could not have rendered better this insight into how the phenomenal world of high politics and statecraft may be rendered intelligible.

A highly "sanitized" version of the report existed for many years at the Kennedy Library in Boston; it was finally declassified in April 1992. Neustadt organized the present book around the report itself, adding at the beginning a useful cast of British and American dramatis personae. One of the most valuable elements of this book is a collection of the memoranda of conversations.
("memcons") resulting from numerous interviews Neustadt was permitted with all the major participants, except for Macmillan and Kennedy. Kennedy read the report on 17 November 1963, only five days before his assassination.

Aside from being a case study in nuclear policy management involving a crisis of confidence between two allies in possession of thermonuclear weapons, Report to JFK is also a careful analysis of the roles played by the president's main advisors, referred to as the "Chiefs," and the national security bureaucracy, Neustadt's "Indians." From this perspective, Neustadt draws his lessons.

He first places responsibility for the source of the policy collapse right where it belongs, at the top, with the policy chiefs: "If this is a failure in management look to the managers, the Secretaries [i.e., of Defense and State] and the White House above all." The policy supporting an end to national nuclear forces in general, and the Skybolt program in particular, began with the president and flowed down from there. Two key examples will suffice. First, President Kennedy's secretary of defense, Robert McNamara, took the lead in opposing Skybolt. In one of the most memorable speeches of his tenure, McNamara would argue at Ann Arbor, Michigan, on 16 June 1962 that "limited nuclear capabilities, operating independently, are dangerous, expensive, prone to obsolescence and lacking in credibility as a deterrent." In particular, McNamara ridiculed the whole notion of an independent nuclear deterrent composed of "relatively weak national nuclear forces with enemy cities as their targets [as] not likely to perform even the function of deterrence." This outraged Macmillan, who did not misinterpret the true target of McNamara's message—Britain's independent nuclear deterrent. Also, former secretary of state Acheson delivered a most brutal speech at West Point on 5 December in which he attacked the whole notion of an Anglo-American "special relationship," marginalizing the British contribution: "Great Britain has lost an empire and has not yet found a role. An attempt to play a separate power role—that is, a role apart from Europe, a role based on a 'special relationship' with the United States]—1 . . . is about played out." As Acheson would shortly learn, his prediction was not only premature; it was too optimistic.

The second lesson Neustadt drew was perhaps his most significant: the president's "Chiefs" failed to make a proper strategic assessment of Great Britain's intentions and its capabilities as they sought to scuttle the Skybolt program. It is thus in the conclusion that Neustadt offers his finding and his most telling critique: "Had Britain seemed more 'enemy' than 'friend' a likely question in November would have been: if we hurt them what harm can they do us? . . . The harm Britain might do to us depended on two things: how certain politicians would perceive what we had done, and how they then would calculate their means to counter us . . . If we were in the habit of appraising friends as enemies,
these things would have been in our minds as early as November," which was when the decision to cancel Skybolt was officially broached to the British. The true import of this "lesson" may be conveyed by the fact that it appeared in the sanitized version of the report.  

Was this lesson really necessary for the president? In view of the outcome at Nassau, yes. Once Prime Minister Macmillan had his private walk with President Kennedy on the evening of 18 December 1962, followed by his tour de force presentation to the initial meeting of both delegations on 19 December (outlining the history of Britain's contribution to the development of the atomic bomb and declaring Britain's intention to continue as a nuclear power, come what may), President Kennedy knew the fate of his policy. Sir Robin Renwick, Britain's ambassador to the United States from 1991 to 1995, has offered the appropriate strategic appreciation in his recent book. Note the context of his remarks: "Kennedy, however, was unwilling to provide Polaris unconditionally. Little real thought had been given on the U.S. side to a Polaris agreement... It raised the possibility of an ally triggering a nuclear exchange." This, of course, is precisely the reason why the Kennedy administration sought to cancel Skybolt and retard, if not abort, the evolution of national nuclear forces, Britain's included. The sensitivity of this topic, leading to a strategic cul-de-sac, precluded its becoming the subject of polite conversation among allies.  

This lesson was not lost on Kennedy; as Neustadt illustrates, Kennedy clearly recognized its import, as he confided to McGeorge Bundy, Special Assistant for National Security Affairs. In a telephone call to Bundy from Palm Beach, Florida, on 17 November 1963, the president would admit, "I don't know who the hell I can show this to." Such was the nature of "high politics" taught so long ago by Thucydides as a transcendental principle of statecraft. So it remains.

The third and final lesson of Neustadt's report is that the "Indians," far from making policy contrary to the president's, carried out that policy with loyalty and devotion, for they were not able to do more. As Neustadt put it, "Even had subordinates attempted to pursue the question of what harm our friends might do to us, it is far from clear that in November they—at Indian level—could have got the information for an answer." Neustadt laid the responsibility at the president's feet, asking, "Can one blame Indians for sharing the assumptions of their Chiefs?" It is just here that Neustadt implicitly makes the case for the dominance of the "rational actor," that is, the president/prime minister in a foreign policy crisis of the first magnitude, which Skybolt most assuredly was. President Kennedy's volte-face at Nassau is evidence and justification enough for Neustadt's instruction.

This is paradoxical in view of subsequent research by Neustadt's students and colleagues, who attempted to elevate the role of the "organizational/
bureaucratic politics" model of policy making in crisis, at the expense of the "rational actor"—a paradigm now considered as too ideal a model. 11 They should have read Shakespeare. In view of Kennedy's own experience, is the king's observation in Henry V too antique? "'Tis not the balm, the sceptre and the ball, the sword, the mace, the crown imperial, . . . the throne he sits on, nor the tide of pomp that beats upon the high shore of this world." Rather, Shakespeare presents for history the true job description of sovereigns, be they monarchs, prime ministers, or presidents. The lack of information available to a sovereign is not a problem for Shakespeare's king, but this is beside the point. No one has "the forehand and vantage of a king. The slave, a member of the country's peace, enjoys it; but in gross brain little wots what watch the king keeps to maintain the peace." 12 This, then, is the true measure of the head of state or government.

Neustadt's report will remain a vital primary source for students of the Anglo-American "special relationship" in nuclear weapons and a superb case study of decision making from top to bottom. The sole drawback is the fact that this book (not the report itself) lacks some explanatory context for Skybolt. There should have been minimal discussion, at least in the introduction, of the British-American nuclear weapons relationship. It also would have been helpful if the conclusion had contained some reflection upon the impact of the failure of the Skybolt policy direction. After all, Skybolt's failure led not only to Polaris but to a third-generation British nuclear deterrent, now in service—Trident. Such a discussion would have provided a better understanding of the nature of the Skybolt crisis. Instead, one who is unfamiliar with this history is offered only a slice, a case study of a policy dispute, out of context. Indeed, Neustadt has utilized the report in the Kennedy School Case Program at Harvard University—but for this book, more was needed.

That Neustadt's contribution will be lasting is confirmed by how he uses sources and the context in which he presents his findings. His supplementary chapter, "British Refinements," containing some frank British remarks on the crisis and the Nassau Conference, is first-rate. Indeed, perhaps the most memorable and overarching theme might well be Jacqueline Kennedy's recollection of the president's confession as he presented her with the original report to read for herself: "If you want to know what my life is like, read this." For this and other insights into high policy, students of statecraft will forever remain in Professor Neustadt's debt.
NOTES


6. Ibid.

7. Quoted in Ball, p. 69.


10. On the subject of discretion, see the comments of Lord David Owen, former foreign secretary of Great Britain, in his review of An Ocean Apart, by David Hinkley and David Reynolds, Sunday Times (London), 3 April 1988, p. 64.


THE BOOK WE HAVE BEEN WAITING FOR

Colin S. Gray


This is the one we have been waiting for. At last we have a worthy complement to Gerhard Weinberg’s A World at Arms. With this book Murray and Millett have polished their already lustrous reputations as the cutting-edge team of modern military historians. Unlike many books whose titles are by far their best features, this book’s principal title is its only uninspired aspect. The title is as nonmemorable as the book’s contents are outstanding. In its treatment of the operational histories of the conflicts collectively known as World War II, Murray and Millett are now the standard.

Any book on World War II that aspires simultaneously to be both scholarly and a comprehensive textbook is attempting the impossible. However, the authors have done as well as one could imagine. The problems posed by this subject are awesome. Those of us who dare to teach the history of World War II tend to be defeated by the sheer complexity of the task. Students who read A War to Be Won carefully should understand well enough how land, sea, and air all depended on each other, as well as how Europe and Asia, Mediterranean and Atlantic, Eastern Front and Western (second) Front, Southwest Pacific and Central Pacific, all played in the whole game.

Murray and Millett do not advance any novel theories for the outbreak, course, and outcome of the war. To the extent that the book has discernible themes beyond the basic, if still highly complex, course of events, they are its persistent focus upon skill (or lack thereof) in the operational art of war and the means-to-an-end nexus that is apt to define strategic feasibility. The Schwerpunkt of the book is found in chapter 2, where the authors exploit brilliantly, if a bit ambiguously, their expertise in the revolution in military affairs debate. “The Revolution in Military Operations, 1919–1939” anchors the art of war in World War II most appropriately, both in a holistic way and in proper historical context. One has to say “ambiguously,” because it is difficult to square the authors’ flat statement that in “nonsense did German success [in 1940] represent a revolution in military affairs” with the chapter title just cited.
This work is so richly textured that every reader will find in it a box of delights. The authors write in a vigorous prose that consistently triumphs over what could be extremely dull, not to say confusing, material. The point is worth repeating, for emphasis, that the quality of this book is more in its execution than in its conception. In other words, although it contains few unfamiliar arguments and facts, the story is told, en semble, convincingly in operational terms as never before. Occasionally, the authors do gather well known ingredients and provide a most insightful new dish of interpretation. I was particularly taken by the Luttwakian (paradoxical) argument that nothing fails as surely as the incomplete success that frightens the foe into crafting an effective response. In that regard, Murray and Millett suggest convincingly that although German U-boat successes in 1940, and again early in 1942, lacked the operational weight to enable victory, they were sufficiently menacing to trigger ultimately more than adequate Anglo-American offsets. Thanks for the warning! one might say.

The authors' lively style is nowhere used to more telling effect than in their brief and often wickedly nasty pen portraits of Great (and especially not-so-great) Captains. Indeed, A War to Be Won is a treasure trove of memorable judgments. For example, I particularly liked the observation that "Field Marshal Kesselring displayed an unswerving enthusiasm for the fanaticism of others in combat." Or how about this? "Only hacks among American journalists called Omar Bradley a soldier's general." We have just been told that a "soldier's general saves their lives; he doesn't just dress like them." Few American military icons are spared. Of Mark Clark, we learn that "in the end, it was character that Clark lacked"; the authors dismiss the commander of the U.S. First Army in the fall of 1944, Courtney Hodges, as "irascible and truculent; he possessed few operational or tactical abilities despite standing high on Bradley's list." Those snappy comments may seem severe, but they are mild compared to how the authors characterize the generals with whose operational performance they really find fault, such as Douglas MacArthur, Lewis Brereton, and Simon Buckner.

I am pleased to report that Murray and Millett have some well selected heroes as well as villains. They are emphatically right when they claim that "Lord Gort, commander of the BEF [British Expeditionary Force], saved the British Army [in May 1940]." The authors have nothing but praise for General Erwin Rommel. They offer the bold, perhaps somewhat unfashionable, but fairly persuasive claim that "without question, he was the most outstanding battlefield commander of the war."

One of the great strengths of this book is that the operational narrative is told with the human dimension properly flagged. Murray and Millett convey convincingly—to this reviewer at least—the proposition that particular people make a difference even among a cast of millions. Describing the vital crossing of
the Meuse by Heinz Guderian’s XIX Panzer Corps on 13–15 May 1940, the authors advise us that “a relatively few individuals wearing field-grey uniforms, in a blood-stained, smashed-up, obscure provincial town [Sedan], diverted the flow of history into darker channels. The tired, weary German infantry who seized the heights behind the Meuse and who opened the way for the armored thrust to the coast made inevitable the fall of France, the subsequent invasion of Russia, the Final Solution, and the collapse of Europe’s position in the world. The German victory came perilously close to destroying Western Civilization.”

In addition to Rommel—the true hero of the Meuse crossing—Murray and Millett are typically approving of Generals Dwight D. Eisenhower, George Patton, Tomoyuki Yamashita, and even Bernard Montgomery. The leaders of the U.S. Navy are roughly, though justly, handled; many readers will be surprised by the unflattering assessment of Admiral Chester W. Nimitz. Rare among American historians, the authors hover near the overgenerous in their treatment of the British primadonna Montgomery, who “possessed the attributes of a great general” despite his all-too-human egotism.

The authors omit no important dimension of the war. They excel in discussing logistics and intelligence, and they are masterful, and appropriately pitiless, in assessing the strategic meaning of operations. They are brilliantly damning when they write about the German summer 1942 Operation BLAU campaign: “Troops struck out across the vast expanses of southern Russia with no coherent goals except the idle hope that the Soviets would collapse.” The book is chock-full of golden nuggets of insight. For example, “The Allies won the war because they had fossil fuels and because they prevented the Axis powers from turning the fossil fuels of occupied countries into war-winning resources”; and, “The Russian transportation system was not pretty, but it worked.”

Every reader will learn from A War to Be Won. Even this undoubtedly prejudiced British reader learned that Operation DRAGOON (the invasion of southern France), with its seizure of the undamaged port of Marseilles, was vitally important. I also learned that the T-34 tank fared well on soggy terrain not so much because it had wider tracks than German tanks but because its center of gravity allowed for an even weight distribution between its front and rear. The book is most agreeably littered with tactical and technical gems such as this.

Set against so many virtues, it is almost churlish to notice the odd vice. With one exception, the blemishes scarcely register; still, Murray and Millett need to reread Giulio Douhet. They are wrong, or at best grossly misleading, in their two pejorative references to him. (Douhet writes in his The Command of the Air, “I have always maintained that the essential purpose of an air force is to conquer the command of the air by first wiping out the enemy’s air forces” [Dino Ferrari’s translation, 1942 edition, pp. 50-1].) Further, the authors appear to be
more emphatic in their assertions that Germany should have been opposed at
the time of Munich rather than a year later, and that an “amphibious landing on
the British Isles [in 1940] was never a serious option,” than the only virtual (i.e.,
wholly speculative) evidence really allows. Similarly, I am unconvinced that
“Crete [as opposed to Malta] was the correct choice” for the German airborne
assault in the spring of 1941. Also, very occasionally a plausible hypothesis
evolves into an alleged fact. For example, if readers compare pages 437 and 456,
they will discover that “Montgomery’s failure to open the Scheldt may have been
deliberate”—a speculation that later becomes “Montgomery’s refusal to open
Antwerp in September represented a calculated decision to force Eisenhower to
support Twenty-First Army Group in its drive onto the north German plain.”
Well, yes, probably—but only probably. For another quibble, I am frankly baf-
feld by the authors’ suggestion that “far too few [civilians in Western Europe] re-
sisted [German occupation] in 1940 and 1941, when their efforts—though
extremely dangerous—might have made a significant difference to the course of
the war.” At least as written, that speculative point is unconvincing.

There is only one criticism of A War to Be Won that this reviewer deems seri-
ous. That is, for all the authors’ Clausewitzian awareness of chance and friction,
the operational story of World War II tends to unfold in these pages both tele-
ologically and as a moral tale. How hard was it to win the “war to be won”? There
is nothing to criticize about their operational story, but it does unfold in a way
that discourages the thought that Nazi Germany might have won. Murray and
Millett’s Axis powers are inevitably going down to defeat; at least, that is the im-
pression the book gives. If I am correct that this is the authors’ stance, the notion
should be argued explicitly.

With only few and minor exceptions, then, the book’s shortcomings are actu-
ally the flip side of its virtues, of the reasons why it is such a good book. Speci-
cifically, Murray and Millett are historians with justly high reputations, writing
at the height of their professional powers, in complete command of their sub-
ject, and possessed of confidently held opinions. Though scholars scrupulously
fair to the evidence, they are not inclined to give error a day in court. The result,
to the delight of the reader, is an assertive, elegantly spare prose. Happily, even
the footnoting and other referencing is austere, so the reader does not have to
deal with historians’ debates. A War to Be Won presents itself boldly and de-
servedly as what it is: the state of the art—by a country mile—in presenting the
operational history of World War II.
BOOK REVIEWS

THE EMERGING INTERNATIONAL ORDER

Paul, T. V., and John A. Hall, International Order and the Future of World Politics
New York: Cambridge Univ. Press, 1999, 421 pp. $64.95

This book seeks to explain the international system at the beginning of a new millennium and to suggest how it may evolve. In essence, it argues that we live in a stable world, organized around the United States as the dominant leader of a Western (including Japan) coalition. Although challenged on several fronts, this system is likely to persist for the foreseeable future.

The thoughts of eighteen scholars on different aspects of the emerging international order have been organized into three sections: (1) theory, the prospects of major contenders for global influence, and challenges to the system, such as globalization; (2) environment degradation; and (3) weapons of mass destruction (WMD). These essays, written by and primarily for academics, vary in utility for policy makers and the educated public. Each author has included extensive references to the relevant literature and usually a conclusion, but jargon is occasionally a problem. Paul and Hall introduce the issues, advance their "synthetic model," and offer a conclusion that draws the book together.

A key question for many readers of the Naval War College Review is why American dominance has remained unchallenged in the wake of the Cold War. Classic balance-of-power theorists would have predicted the emergence of a countervailing coalition; others foresee overstretch followed by inevitable decline. One answer is that America's position is grounded in leadership of an interdependent, peaceful "liberal league" based on shared values. More provocative is the argument that America's strength is based on uniquely benign leadership. U.S. dominance is widely accepted because America, emerging from World War II, fashioned not just the "glue" of containment policy but also a more deeply rooted, open, economic, multilaterally managed, and liberal Western order beneficial to all participants. Moreover, the very openness of the American political system increases the confidence of other members of the club that they will have a voice in decisions. Finally, the Western order's core institutions have become so embedded in
national societies as to increase the costs of significant change for all concerned.

Critics of this thesis could question the true extent of outsiders’ influence on American policy decisions and why other members of the club should continue to play by American-derived rules. Perhaps Europe’s and Japan’s modern history and inertia, as much as American openness, explain why these allies continue to find the old bargain—American security leadership if America pays the bill—attractive in the aftermath of the Cold War. Moreover, this thesis explains little about why Americans remain prepared to spend a disproportionate amount of their own treasure (and perhaps blood) on a comparatively expensive military capability for the benefit of a “liberal alliance.” In any case, the relevant essays argue that major European states share no perceived common interest in significantly more cohesive foreign and security policies. Moreover, Japan—balancing its global and regional roles and sure to encounter resistance to any attempt to dominate Asia—is unlikely to adopt a consistently more independent policy, except perhaps in the economic sphere.

Russia, China, and India round out the major powers reviewed. For Russia, revanchism is dismissed as a realistic option. China is portrayed as a relatively satisfied power, intent on its own economic development and on resisting external interference. This view, which is at odds with much recent speculation, carries implications for the political debate within the United States and for U.S. force structure. India now has neither an interest in challenging the system nor the means to do so, except marginally on nuclear issues, but it remains determined not to permit others to foreclose the possibility that it too may some day aspire to great-power status.

Where, then, are the future challenges, particularly if swathes of the developing world are scarcely relevant to international order as a whole? Globalization and environment degradation may eventually diminish the relevance of the state itself, though the impact of these phenomena on the system’s interdependent core remains to be proved. The proliferation of weapons of mass destruction may threaten not only catastrophe in Asia and the Middle East but also, as military officers are well aware, U.S. ability to intervene effectively abroad. On the other hand, the revolution in conventional military affairs could lead to greater Western pressure for universal WMD disarmament. A chapter on political religion properly points out problems with Samuel P. Huntington’s well known and overblown prediction of conflict between civilizations. However, it provides little guidance about what we might expect, particularly with regard to tensions within the Islamic community over that civilization’s relationship with the West.

Finally, many readers will appreciate references to Carl von Clausewitz in the editors’ introduction to their model. Drawing on history, they argue that irrespective of the nature of international order, better calculation of national interests and prudent behavior are important to the peaceful accommodation of new challengers. Whether democracies are more likely to exhibit such behavior is another issue.

In short, this ambitious volume provides an extensive, well organized sample of current thinking on international relations.

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It is conventional wisdom in some circles that with the demise of the Soviet Union, nuclear weapons may no longer be a major factor in the calculus of international relations. This survey of varying perspectives on nuclear proliferation, compiled by Barry R. Schneider and William L. Dowdy, credibly challenges that arguably premature assumption. The editors are, respectively, associate professor of international relations in the Department of Future Conflict Studies, and associate professor of Middle Eastern studies in the Department of International Security Studies, at the Air War College, Maxwell Air Force Base, Alabama. Both have devoted a considerable portion of their professional lives to international security issues.

This book grew out of a conference on nuclear proliferation issues jointly sponsored by the U.S. Department of Energy and the Air War College, held on 26–27 April 1996 at Maxwell. The conference involved numerous nuclear-proliferation experts, many of whom served as principal speakers and presenters. The group was composed of diplomats, regional specialists, policy makers, academics, scientists, senior military officers, and defense professionals from several nations. Many of their papers are contained in this analytical compilation, and all contributors to the book were conference participants. The subject matter includes lessons from previous nonproliferation experience, recent successful nonproliferation efforts, continuing proliferation challenges and risks, progress achieved to date in nonproliferation programs, discussion of possible nonproliferation roles for nongovernmental organizations, and potential counteractions against emerging nuclear states.

As outlined in this work, two seminal events in the late twentieth century had major impacts on global nuclear proliferation: the collapse of the Soviet Union, and the continuing spread of fairly easily attainable nuclear weapons, components, and technology. The two events are, of course, not unrelated. In that regard, leakage of weapons technology and expertise to foreign buyers clearly remains the most worrisome aspect of the current serious Russian internal problems. However, that said, and contrary to the expectations of many analysts, nuclear technology has not spread as rapidly as anticipated. Contributors to this book speculate that this reality is, not surprisingly, the result of multiple, complex, and interacting factors. These include the considerable cost of fielding nuclear weapons, concerns regarding possible preemption by adversaries, fear of isolation by the international community, and growing doubts as to the actual utility of nuclear weapons as deterrents much less as war-fighting tools—particularly when weighed against inherent risks.

The preceding cautiously optimistic observations aside, there is a clear recognition by the contributors to this book that there has already emerged a group of nation states that may well prove to be catalysts for nuclear confrontation in the not-too-distant future; the Democratic People's Republic of Korea, Iran, Iraq, and possibly Libya and Syria. Moreover, despite the perhaps understandable balance-of-power motives, there is also the unresolved question of the potentially dangerous and destabilizing nuclear weapons stockpiles possessed by Israel,
India, and Pakistan. There also remains what could be the central international policy issue, regarding what to do if a state is discovered in violation of a previous agreement not to develop nuclear weapons.

Several short case studies are given of states that have, variously, developed and stockpiled nuclear weapons, or initiated nuclear weapons development programs and subsequently canceled them, or elected to negotiate regional nuclear-free zones. The book offers valuable insights into factors that seem to motivate these diverse policy choices. The lesson herein may be that no two states react similarly when faced with the nuclear weapons procurement dilemma. Some essays present overviews of evolving national policies on proliferation and nonproliferation as declared by the United States, the United Kingdom, and France, and of the nuclear arms-reduction program in Russia.

In addition, an American specialist provocatively analyzes the seemingly obdurately refusal by the People's Republic of China to respond to international pressure and previous agreements not to transfer ballistic missile and nuclear weapons technologies abroad. The author's conclusion is that the Chinese government is steadily losing control of its provinces, military-industrial complex, and the People's Liberation Army. Thus there are emerging in China increasingly independent actors implementing contradictory foreign policies regarding weapons-technology transfers and the considerable profits to be made therefrom.

Another contributor argues that high-technology precision guided conventional munitions (PGMs) may well obviate the need to acquire or employ nuclear weapons, as the destructive effects of PGMs are essentially the same and thus have made the former both irrelevant and too dangerous.

The technical data presented here regarding nuclear weapons and weapons production are probably sufficient to inform but not overwhelm the nonspecialist. However, there is also a virtual blizzard of acronyms throughout the book, describing weaponry, research and development programs, and weapons-related agencies of various stripes. Initially, this may prove somewhat daunting to the layperson, but patience will be rewarded, as most entries are explained.

The not inconsiderable utility of the book would have been further enhanced by an article that summarized the underlying themes of the work and categorized the diverse viewpoints expressed by the contributing authors. Such an article would have been of considerable value to a nonexpert student of nuclear proliferation issues.

The major strength of this work is that it provides a diversity of viewpoints regarding nuclear proliferation issues, ranging from enthusiastic optimism about the future to cautious pessimism. Moreover, it also quite realistically, in this writer's view, leaves many important issues explained but unresolved. In this regard, and possibly closest to the mark, one author contrasts two cultures that are currently grappling with nuclear proliferation issues, and with each other—diplomatic activism and nonproliferation versus military preparedness and counterproliferation. Other contributors observe that nuclear proliferation will probably never be completely resolved. One hopes that within these parameters a process will evolve that at least minimizes the real risks inherent in nuclear weapons.

DAVID M. GODBROCH
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This book examines the general problem of the proliferation of weapons of mass destruction (WMD), focusing specifically on using military means to counter the spread of nuclear, biological, and chemical weapons.

The central theme that animates this work is the desire to "contribute to the counter proliferation dialogue," addressing what the editors argue is the "most important threat facing the Department of Defense." The term "counterproliferation" emerged in the beginning of the first Clinton administration, when Secretary of Defense Les Aspin organized the counterproliferation initiative (CPI) to create new military capabilities for dealing with WMD. Undoubtedly, the failure of coalition forces during the Persian Gulf War to find Iraqi Scud missiles (in the infamous "Scud hunts")—not to mention the extraordinary failure of international nonproliferation regimes to discern the existence of Iraq's extensive WMD facilities—signaled that the United States must be prepared to deal militarily with WMD in regional conflicts. The consensus is that the failure to produce credible and effective military options for finding and destroying such weapons will have devastating consequences for the U.S. military.

To complicate matters, there is a growing realization that the United States and the international community cannot depend on nonproliferation regimes to prevent states (notably Iran, Iraq, North Korea, and Libya) from acquiring weapons of mass destruction. The most dangerous scenario is that those regimes might use such weapons against U.S. troops or American cities. Facing this possibility, the Defense Department has organized a program to deal with WMD.

The editors of this volume have collected the ideas of some of the important thinkers on the subject of proliferation. With a foreword by former Secretary of Defense William Perry, it begins with an examination of the origins of the CPI and proceeds to consider a number of programs and policies that together constitute what is meant by counterproliferation. These descriptive chapters are useful to the extent that the reader can understand the political and bureaucratic forces that have changed how the U.S. defense establishment thinks about the proliferation of WMD, and more importantly, why the United States is developing technical means for finding and destroying such weapons.

The more analytical chapters focus on the implications of proliferation for states and military organizations. For example, the chapter by Brad Roberts examines the policies and mechanisms for preventing states from developing WMD. An important observation from this chapter, at least to this reviewer, is that various international regimes have failed to prevent the proliferation of WMD. The chapter by David Kay on "involuntary reversal" considers the value of measures that are available to the international community for forcing states to relinquish WMD. As one of the architects of the UN Special Commission on Iraq (UNSCOM), Kay has levered his thoughts on this matter with his firsthand experience in finding and dismantling Iraq's WMD facilities. The chapter by David Bernstein and Lewis Dunn on deterring WMD threats is a useful
discussion of the value of using such weapons to deter their use by rogue states. Finally, the chapter by retired general Charles Horner and Barry Schneider examines the feasibility of using counterforce attacks to destroy WMD facilities.

I mention these chapters in particular because they contribute new and useful insights. Unfortunately, while many other chapters are also useful, their value is weakened by their failure to advance our thinking about this problem—surprisingly, since the overall quality of the chapters, which are unusually tightly organized for edited works, suggests that the editors went to considerable lengths to harmonize all the parts into a coherent whole.

As a general observation, this is a useful work that contributes to what we could call the proliferation, nonproliferation, or counterproliferation debates. But the variety of views highlights the underlying weakness of the current debate about WMD. In essence, counterproliferation is a logical extension of nonproliferation, because, as these words suggest, the success of nonproliferation has been less than stellar. The concept of counterproliferation not only implies but trumpets that we must be prepared to counter proliferation because nonproliferation has failed to contain the number of states that possess WMD. This change in the strategic landscape has profound implications for U.S. national security and foreign policy. Yet author after author feels obliged to pay homage to the critical and enduring value of nonproliferation, despite the fact that, as the title of this work suggests, we have moved from preventing proliferation to managing nonproliferation’s failures.

As the editors note in the conclusion, “much remains to be done.” Their book is an important first step toward analyzing how counterproliferation represents the next step in the search for new ways to deal with the weapons that dominated strategic thinking during much of the twentieth century.

WILLIAM C. MARTZ
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In Digital War, Captain Robert L. Bateman III, U.S. Army, a history instructor at West Point, has assembled an interesting collection of essays discussing the future of the Army in the digital age. The articles are “from the front lines” in that most of the authors are active-duty Army officers, which makes the book a useful review of what some of the service’s most thoughtful writers have to say about such future Army visions as Force XXI and the “Army after Next.”

For the most part, the essays take a careful, critical view of the Army’s official visions of the future battlefield. Many of the potential problems discussed will be familiar to readers of Parameters and other military journals; they include such issues as: Can the United States afford the systems that will truly digitize (or network) the entire military? If we do achieve a completely “networked” force, how will that affect command and control?

One article, by Lieutenant Colonel John A. Antal, veers off into the sort of Blade Runner future that Phillip K. Dick describes in his novel of that name. However, for the United States, Antal believes the real bad guys are not the enemies
shooting at us but the craven politicians and other leaders who began making wrong decisions back in the 1960s. In this analysis, the United States has abandoned its conventional military might in favor of an arsenal of long-range precision guided munitions backed up by perfect situational awareness. An Army colonel calls the president on his holographic eyepiece to ask for guidance; before she can answer him, the connection to the global Hypernet goes down, leaving him and his squad alone and very much afraid.

Fortunately, most of the essays are more grounded in reality. The first chapter, by Bateman, discusses how digitization (which is used as shorthand for the current revolution in military affairs) is affecting the tactical battlefield. Bateman uses as a case study the story of the Army's reluctant development of radio between the world wars. This may sound familiar to military personnel today who are trying to adapt to computerization under such rubrics as IT-21.

Radios were issued in the 1920s with little or no technical support—the policy was that infantrymen would install, maintain, and operate their own equipment. During maneuvers, commanders would routinely decline to use their radios and also hide any problems that arose with them, because to acknowledge communications problems might interfere with "real" training. Eventually, the Army was saved from its own failure to embrace technology by simply adopting a commercial, off-the-shelf system: the FM radio used by the Connecticut State Police.

Bateman also discusses the impact that shock and fear may have on the battlefield of the future. He proposes that a "digitized" soldier, equipped with far more information and able to learn about every loss and setback throughout the entire battlespace, may become more, not less, susceptible to shock and fear. This raises questions for proponents of network-centric warfare who argue that the ability to create shock and fear in the enemy will be a great asset to the netted force of the future.

Bateman offers one solution to the problem of equipping and training a military in the age of expensive, quickly changing technology: instead of trying to bring everyone up to the same level, accept the fact that technology changes too quickly. The solution would be a modular army, with one echelon equipped with the latest and greatest technology while the second echelon retains today's equipment. In another five years or so, their positions are reversed; the second echelon receives the latest equipment while the other half retains its now older gear.

A common theme of several of these essays, including a second chapter by Lieutenant Colonel Antal and another by Lieutenant Colonel Robert R. Leonhard, is the question of whether or not the use of indirect "fires," enabled by improved targeting data, is replacing maneuver and direct combat on the battlefield. Simply stated, are precision guided munitions the dominant method of future warfare? As far as several of these authors are concerned, the answer is a firm no.

"Precision strikes that are not backed up with a continuous battle of decisive maneuver are merely artillery raids set out to punish, not defeat, an opponent," writes Antal.

The final chapter differs from the rest in that it is not written by a serving Army officer; Ed Offley is a military reporter for the Seattle Post-Intelligencer. He describes "The Military-Media Relationship
in the Digital Age" in an insightful review of current issues in the military press relationship. One lesson of the Gulf War, he writes, is that "the news media is not the enemy, but rather the battleground on which the struggle for public support, congressional funding, and political decision making will be fought." Despite the generally improved relations between the military and the press in recent years, Offley believes this relationship will face several challenges in the future. Advances in satellite communications and portable computing will continue to make reporters more independent of military control. At the same time, military units will face even closer media scrutiny in the future, as investigative reporters use "data mining" techniques to search through quantities of information on the Internet and elsewhere, and as commercial satellite imagery becomes more widely available. In addition, Offley predicts there will be increasing pressure to allow recording and actual broadcast of live combat.

Several chapters, such as those discussing the future of the Army National Guard and Army education and officer personnel policies, may hold little interest for a joint audience. But there is a great deal in this book that will interest anyone following the debate over the shape of the U.S. military in the information age.

BRIEFLY NOTED

Commander, U.S. Navy


To End a War is an interesting visit to the inner workings of the art of international negotiations. The reader accompanies Ambassador Holbrooke on his journey in search of an end to the war in Bosnia-Herzegovina. The path he takes is winding and laced with harrowing twists, switchbacks, and a few dead ends. He writes in a clear and forthright manner that keeps the reader's attention throughout the book even though the outcome is known.

Holbrooke opens with a review of his trip over Mount Igman in August 1995, in which three of his colleagues were killed in a tragic military vehicle accident. This loss is still deeply felt by the author; however, he often points out how little it meant to others outside his circle when placed in perspective of the tens of thousands who had already died.

The remainder of the book is divided into four sections. The first, "Bosnia at War," covers Holbrooke's introduction to the conflict and introduces the key players. He gives a candid and bleak description of the situation at the time that the United States was still considering its options and the UN was already deep in the morass of the Balkans. The Clinton administration, still smarting after the Somalia debacle, had little appetite for another adventure into a seemingly endless civil war. Europe and the UN were simply not achieving their aims, and conditions were only getting worse.

"The Shuttle," the second section, is perhaps the most interesting. Holbrooke details how he and his team patched together a shaky consensus among a diverse group of international leaders and power brokers in the Balkans, Europe, and America. The negotiations leading up to the Dayton accord were filled with intrigue, plots, and subplots. Since many of the parties involved were the same ones we later see in the Kosovo crisis, the insights provided are absorbing. The description of Slobodan Milosevic leaves one with a deep appreciation for his
considerable abilities but with the impression that Holbrooke feels that given the tools, he (Holbrooke) could outmaneuver him. General Wesley Clark serves as Holbrooke’s military right hand, and he undoubtedly gets his own impression of how to deal later with their shrewd adversary.

Holbrooke is harsh in his assessment of the military, and in particular of Admiral Leighton Smith, who at the time was the commander of Allied Forces South (AFSOUTH). Admiral Smith was the joint force commander for the NATO air operation DELIBERATE FORCE, which began on 30 August 1995. Holbrooke viewed the bombing of the Bosnian Serbs as his greatest leverage toward an agreement. He casts Smith as an obstruction to this design, for his refusing to support a more ambitious and consistent bombing campaign. The author seems to ignore the fact that Smith was not an independent commander but a subordinate to General George Joulwan, Supreme Allied Commander, Europe for NATO, and of the SACEUR bureaucracy. Holbrooke argues that a lack of NATO-approved targets threatened to interrupt the bombing at a time when he needed to maintain pressure on the Serbs. He recognizes that NATO nations would never approve additional targets and that the only option remaining for the military was to restrict previous targets, at increased risk to the NATO pilots. He is quite clear that in his view the military operations were not synchronized with the political objectives, thus diluting their benefit.

The next section details the historic gathering at Dayton, Ohio, in search of an agreement. The day-to-day give-and-take of negotiations is exposed to the reader, along with a further examination of the human dimension of the process.

Holbrooke’s experience as a participant in the Vietnam War settlement negotiations in Paris alerted him to the potential pitfalls at Dayton. During the deliberations, other elements of Holbrooke’s negotiating advantage come into evidence; the success of the Croatian offensive, the economic embargo on the Federal Republic of Yugoslavia, and the war-weariness of the parties all contributed to his bargaining power. The real-life drama of the near failure of the talks and the last-moment changes in positions reads like a contrived Hollywood movie script.

The final segment briefly addresses the implementation of the agreement, which is probably why the book was named To End a War instead of To Find a Peace. Once again, Holbrooke brands the military as an unwilling supporter of the greater good. He outlines the failures of NATO’s Implementation Force (IFOR), labeling it a flawed operation. Its inability to accept policing responsibilities (or allow a strong international police force), an aversion to “mission creep,” and a stated position that it would not arrest war criminals relegated NATO to a weak position that was soon exploited.

Much of the blame is again passed to Admiral Smith, who now wore a second hat as the commander of IFOR. Holbrooke spends little time addressing the failures of the civil mission in Bosnia-Herzegovina. He appears unaware of the significant contribution of IFOR to salvaging the first election, in which Holbrooke was head of the Presidential Observer Mission.

One may not agree with all of Holbrooke’s assertions, and subsequent memoirs by other figures mentioned in this book are apt to take him to task. Holbrooke clearly subscribes to the
Clausewitzian view of the role of war as an extension of politics. This fact alone, coupled with the continued prominence of Holbrooke in the U.S. diplomatic scene, both today and likely in the future, makes this a must-read book for military professionals.

Patrick C. Swiney
Colonel, U.S. Army


This is the second of a set of two works that provides a concise, detailed history of the actions of U.S. Naval Forces, Central Command (USNavCent) during operations Desert Shield and Desert Storm. (The first volume, Desert Shield at Sea: What the Navy Really Did, also published in 1999, contains three parts: “Erecting the Shield, 2 August–17 September 1990”; “Preparations for Defensive War, 18 September–8 November”; and “Preparations for Offensive, 9 November–16 January.”)

Desert Storm at Sea contains two parts. The first, “Storm at Sea,” begins on the evening of 16 January 1991 and concludes with a chapter on postwar operations into 1999. The second part contains analytical observations on key aspects of U.S. naval force activities during both operations, as well as a conclusion that takes up the question, “What Could the Navy Do to Be More Joint?” Thus, although this review concerns specifically Desert Storm at Sea, it is most useful to think of the two volumes as a single work, addressing four distinct historical phases, with an analysis thereafter.

Marvin Pokrant’s first purpose is to provide an objective and comprehensive history of USNavCent actions during Desert Storm from the operational-level perspective (commander and staff), but with necessary recourse to the tactical level. This is accomplished in twelve chapters that address strike; air control; sea control; amphibious warfare; mine countermeasures, including planning and preparation for the ultimately unexecuted amphibious assault (Desert Saber); naval actions during the ground war; prisoners of war; and postwar activity. The author’s second purpose is to stir debate by offering reasoned opinions on command and control, amphibious, mine countermeasures, strike, air defense, maritime intercept, the joint force air component commander (JFACC), and “jointness” aspects of U.S. naval force participation in both operations. Both purposes have been achieved with significant success, in this reviewer’s opinion, and they contribute to Pokrant’s overarching objectives: to promote a better understanding of U.S. naval contributions in Desert Shield/Desert Storm, and to suggest how such contributions might be increased in future operations.

With these volumes Pokrant has made a superior contribution to the professional literature of the Gulf War. As a military-operations research analyst, he was the Center for Naval Analyses (CNA) field representative on the flagship of USNavCent from August 1990 to April 1991. In that capacity he had direct access to internal briefings, meetings, memoranda, key personnel, official messages, correspondence, and logs, as well as the CNA library. His personal notes of each day’s activities, buttressed by many documents and interviews, serve as the core of both books. After Desert Storm,
Pokrant coordinated the CNA reconstruction of both operations with the Seventh Fleet staff. From 1992 to 1994 he served as CNA’s director of the Fleet Tactics and Capabilities Program, wherein he managed a variety of analyses concerning issues raised during the conflict. He is now retired.

*Desert Storm at Sea* is written in an easily understandable narrative style. Pokrant minimizes the use of acronyms, providing at the beginning of the book a list of the abbreviations he does use. Maps, drawings, diagrams, tables, and photographs measurably assist the reader, particularly with regard to organizational details and positioning of forces. The index is robust and also helpful. Of interest, one of the author’s original goals was to “cite a source for every statement that was not summary or clearly the author’s opinion.” This was determined ultimately to be impractical for publication purposes. Thus the end of each chapter contains a short summary of sources and limited endnotes. The bibliography is extensive and includes books, multisource reports, articles, CNA reconstruction reports and other publications, and interviews. A manuscript copy of the book with complete sources is at the Center for Naval Analyses.

The Army/Air Force-centric nature of both operations has ensured that the vast majority of books and articles concern the contributions of these two services, as well as of the Marine Corps units ashore, to the overall effort. In that context, *Desert Storm at Sea* and its companion volume are very welcome additions to the literature. They provide a comprehensive, detailed Gulf War history of U.S. naval activities where none before existed. Further, and in contrast to typically related writings that rely heavily on secondary and tertiary sources, the foundation for this history is the primary source—Pokrant himself, aboard the NavCent flagship. These factors bestow a solid foundation of authority and accuracy upon his work.

Two limitations are worth mentioning. First, as the author points out, certain “interesting and important activities, such as intelligence,” could not be discussed because of security. Second, in U.S. Navy culture, logistics and sustainment “ain’t sexy.” This is again borne out by the limited treatment (a few pages in the first volume) afforded these critical operational functions; that is unfortunate, given the truly remarkable magic woven by the naval and Military Sealift Command elements of the combat logistics force that sustained U.S. and coalition naval forces.

In the foreword to *Desert Storm at Sea*, Admiral Stanley Arthur, Commander USNaveCent from 1 December 1990 through the end of the Gulf War, credits Pokrant and CNA with “seizing the relevant data and wringing the truth from it.” This reviewer agrees.

Paul Romanski
Naval War College

William Mott draws some useful conclusions from eight disparate cases of military assistance: French support for the American colonies (from 1776); British support for the anti-French coalition (from 1793); British support for the Iberian campaign (from 1808); U.S. support for wartime China (from 1941); U.S. support for postwar China (from 1945); U.S. support for the French in Indochina.
(from 1949); U.S. support for the Republic of Vietnam during the “interwar period” (from 1955); and U.S. support during the Second Indochina War (1965). Mott superimposes a profile of four “uniformities” as a means to assess donor nation success: convergence of national aims and interests; donor control of the relationship; committing donor defense forces; and cohesion of donor policies and strategies.

There are, however, several issues regarding the study’s approach and the universality of the conclusions. Mott’s study uses the term “wartime,” which has a broad array of meanings. For example, Americans think of war as an anomaly in international relations. Despite the fact that there have been only five formally declared wars, Americans have seen nearly 225 years of unbroken warfare. Nevertheless, they still insist on making a distinction between war, peace, and all that unpleasantness in between. Assessing the success of U.S. support for China during World War II and U.S. support in Indochina requires, therefore, different approaches. Military assistance in the former was an economy-of-force operation that presented the Japanese with an additional front in a multifront theater, analogous to U.S. support to the Soviets (1941–1945) against the Germans. The cost-benefit ratio for these cases worked. However, equating the three post–World War II Indochina cases with keeping China in the war (and tying up dozens of Japanese divisions) is a stretch. Unlike 1917 and 1941, undeclared low-intensity conflicts, or small wars—or the nom de jour, military operations other than war—have a decidedly different résumé of cohesion, convergence, and success.

Mott raises a number of issues that caused this reader some difficulty. In the first French case, he posits several war aims and then selects the most ambitious one by which to measure success. There is no doubt that revenge for the loss of North American colonies (1763) and the total destruction of Great Britain loomed large on Versailles’s wish list. There is also little doubt that the French did not reject a lesser but included goal of embarrassing and weakening their adversary, which they achieved with money and a minor commitment of forces to the Americans.

Problems with war-termination goals resurface in the book’s appendix, with respect to the Reagan Doctrine; Mott compares French support to the Americans to American support for the Contras in Nicaragua. After noting the similarities, he calls both attempts failures and dismisses the Reagan attempt to “roll back” the Soviets. While certainly not solely as the result of military assistance, the Soviets were in fact rolled back. This was the product of a combination of initiatives including military assistance to anticommunist insurgencies in Asia, Africa, and Central America, as well as the main show—the big-power arms race. We will probably have to wait for the declassification of sources to determine what discrete and cumulative weights should be given to the five insurgencies the United States supported.

The issues of convergence of interests and commitment of the donor are particularly interesting aspects of this study. In the majority of the cases, Mott’s analysis is valid. While he is solid in describing the confusion and ad-hocism of U.S. foreign policy formulation in Vietnam, however, his definition here does not quite fit. He refers to all eight cases as
"military assistance in wartime." The three Indochina cases do not match the U.S. definition of "wartime," at least not until 1965, and even then it was not the kind of "war" the United States thought it was fighting. Additionally, the commitment of U.S. prestige, blood, and treasure to the Republic of Vietnam made the donor hostage to the recipient. This aspect of Mott's analysis of the Second Indochina War needs work. Also, coupling the commitment of donor forces to the success of the war aim is flawed, at least in the Vietnam case. The problem, never really understood then and still not completely understood now, is that in post-WWII counterinsurgency warfare the larger the U.S. forces committed, the less were the chances of success. Put another way, if U.S. combat forces are needed, there is already a high probability of failure—salvaging someone else's war is nearly impossible. If U.S. forces are committed, the warring nation has even less incentive to make the kinds of reforms necessary to win. Mott refers to his companion work, *Military Assistance: An Empirical Perspective*, in which he deals with military assistance during the Cold War. One can hope that it will provide a more comprehensive look at the success/failure rate in counterinsurgency wars.

From a historical perspective, *Military Assistance* has much to offer. Taken separately, the cases and their uniformities provide a useful look at military assistance as an instrument of national policy. Mott's research is thorough, and by examining a little-understood facet of policy he does us a valuable service. For today's "dabbler in the occult" of military assistance, foreign military sales, foreign internal defense, etc., the study provides some trenchant questions and sobering lessons. The flaws are few, the scholarship is of high quality, and the measures of effectiveness it suggests are useful. This book deserves attention as a valuable contribution to the sparse offerings that deal with military assistance.

JOHN MACBETH
*Naval War College*

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Hirschfeld and Hore have artfully edited the proceedings of an international conference on small and medium-sized aircraft carriers held in Southampton, England, in December 1997. Over ninety academic, industry, military, and media delegates from fourteen nations that have, or have had, or might procure small or medium carriers met to hear and discuss the presentations addressing carrier acquisition. Four main issues emerged: (1) the geo-strategic environment in which carriers might operate, (2) the infrastructure needed to support carriers, (3) choices of embarked aircraft and alternatives, and (4) regional effects of carrier acquisition.

There was a general agreement that the Cold War's strategic symmetry has been replaced by a lesser threat of general war but a greater one of regional or limited war, sparked by minor crises that had previously been held in check by the superpowers. Forces optimized for "blue water" are now turning their attention to littoral operations. Meanwhile, the limits of littoral warfare are expanding, by virtue of the capability and range of new-technology weapons. This new technology has made the majority of
the world’s cities, industry, populations, and political leaders susceptible to influence by littoral warfare. In this sense, Sir Julian Corbett may be eclipsing Alfred T. Mahan.

The world’s maritime focus has shifted from the Atlantic to the Pacific and Indian Oceans, with a parallel shift from Cold War dynamics to the hyperspeed free trade and global economic interdependence of today’s marketplace—activities that are dependent on maritime assets. The nurturing of a low-threat, stable environment at sea to facilitate a steady supply of energy and unobstructed movement of foreign trade is the context in which nations examine the relevance and credibility of carrier capabilities.

For a nation without a large shipbuilding industrial base, a carrier program carries considerable infrastructure baggage that affects decisions whether to build or buy abroad. Nations that do have the industrial base engage in debates regarding size, capability, and the national economic benefits of continuing a robust carrier program or of “ramping up” a dormant program. In both cases, the burden of development, design, procurement, and life-cycle costs, not only for the air-capable platform itself but also for the embarked aircraft, is balanced against a carrier’s perceived utility in today’s strategic environment. Building at home means jobs, expanding markets, and technology benefits that would necessarily accrue to others if the carriers were built abroad.

Interestingly, issues of alternative aircraft mixes on air-capable decks greatly complicate the rational calculus but must be integral to decision making. Will there be conventional-takeoff-and-landing aircraft requiring steam catapults and arresting gear? What are the implications for required deck size and steam generation capability? Will there be short take-offs and landings that need only a ramp deck, or a mix, with a ramp but arresting gear for conventional landing? Or strictly helicopters? In some cases, reliance on the anticipated availability of the U.S. joint strike fighter, if successful as a program, is a wild card. The cost-benefit evaluation of aircraft and ship mix options is worthy of a close read. Not surprisingly, affordability is an issue that ranks high on every agenda.

The varied perceptions of the regional impacts of carrier acquisition are a most insightful feature of this book. Regional balances of power are thought to be zero sum, perhaps rightly so. If one nation acquires carrier capability, others in the region may feel compelled to acquire a counter-capability—but regional carrier effects focus on littoral operations to safeguard national interests, not on aggression. Overriding concerns were for flexible, mobile forces for use in both war and peace, joint and coalition interoperability, and the ability to operate wherever interests dictate without relying on help or support from nearby states. Qualities of carrier mobility, versatility, sustained reach, autonomy, lift capacity, and “poise” (the ability to exert diplomatic and military leverage) are attributes seen as particularly suited to the unpredictable operations of the present and future littoral.

In summary, as a collection of disparate regional views of the relevance of aircraft carriers to today’s geostrategic world, this book is a wise choice for anyone interested in carriers, and an even better choice for those interested in the littoral.

WILLIAM H. ROBERSON
Captain, U.S. Navy

A few weeks before this review was written, I received via e-mail an unclassified image that was making the usual military rounds. The only words in the accompanying e-mail were, “This is a successful solution.” The image was an infrared photograph from a missile seeker video taken one frame prior to impact with a QF-4 remotely piloted target drone. The image was as clear as an Ansel Adams photograph of moonrise over Haldome. Though the heat of the intake and particularly the exhaust could be noted, all parts of the aircraft were easily identifiable—and it was a head-on shot. The missile was the AIM-9X, the latest evolution of the Sidewinder, conceived and developed a full half-century ago. Indeed, the Sidewinder has been the successful solution to a question that the U.S. Navy never posed about a heat-seeking guided missile it never asked for, from engineers at a naval laboratory whose stated mission prohibited them from developing guided ordnance. Westrum’s book is a fascinating story of the people who developed what has been called the world’s best air-to-air missile, and of the laboratory that in its own curious way allowed these engineers and scientists to exercise their creative genius.

Westrum writes in the area of science, technology, and society, with special emphasis on aviation and systems safety. He is a professor of sociology and interdisciplinary technology at Eastern Michigan University and is the author of two previous books and numerous articles. This work is the result of twelve years of research on the Sidewinder experience at China Lake.

*Sidewinder* tells the story of a man and his missile. Bill McLean was a Caltech physicist by education and an engineer by nature. He began his career in 1941 at the National Bureau of Standards, in the Ordnance Accessories Division of the Office of Scientific Research and Development (OSRD) in Washington, D.C. He worked on proximity fuses for rockets and bombs. In OSRD McLean found an environment with minimal organization and maximum interaction between creative people, whose roles fluctuated with the current needs of programs. This intimacy of small teams had been known to work in industry at places like the Lockheed “Skunk Works,” so those who formed the Naval Ordnance Test Station (NOTS), China Lake, California, made sure to instill OSRD’s principles in the new desert test range and laboratory for rockets. Bill McLean thrived at China Lake, as he had at OSRD.

McLean did not set out to design a guided missile. It was the result of his frustration with aiming devices for unguided air-to-air rockets. The miss rate of early guided missiles was 90 percent; a better solution was necessary. He felt that the fire control had to be put in the missile instead of the aircraft, an idea contrary to the then-current approach to radar—combat aircraft had to continue to illuminate their targets with their onboard radar while the missile homed in. McLean believed that an infrared (IR) seeker, which was much smaller than a radar seeker, was called for, and his concept of the “heat-homing rocket” was born.

Westrum bases his history on countless interviews with members of the Sidewinder project, as well as on records...
obtained from these members and official sources. His anecdotes being a sense of the familiar to a laboratory working intensely to provide the military with a successful solution to air-to-air combat. Many military personnel then believed an IR seeker could not work. An IR detector was developed and mounted on an old, surplus radar pedestal. It used feedback to follow the target. Westrum notes, “It tracked lighted candles, birds, and even hugs. Crowds came to committee meetings just to watch the tracking films.” McLean’s philosophy was always to keep it simple, maintain an open mind about various approaches to the problem, involve the end user at every step of the development process, and test to improve the product early on. Often, in the evenings, a cluster of automobiles could be seen in the parking lot outside Michelson Laboratory, as the Sidewinder team returned after dinner to resume their work. Weekend work was common, and always actively involved was Bill McLean, as head of the aviation ordnance department and later as technical director of NOTS. One can envision the man “out on the later 4 test track at two in the morning, in shirtsleeves, waving a cigarette to see how the tracker was working.”

Westrum has documented a triumph of technological weapons innovation by a small, devoted team of Navy engineers and scientists who provided a “successful solution” in spite of bureaucratic roadblocks and lack of funding. He has captured the essence of the man who led the team, and of the environment in which their efforts flourished. The book is highly recommended as a record of what can be accomplished with creative technical expertise and great perseverance.

RICHARD M. HOWARD
Associate Professor, Naval Postgraduate School


This work is a detailed history of the evolution of naval aviation’s quest to conduct night and all-weather flight operations. With this book Charles Brown, a former carrier pilot and squadron commander, makes a significant contribution to understanding naval aviation on carriers. He details the many trials and advances of aircraft and their equipment between 1925 and 1999 in the attempt to conquer the difficulties of flying at night. The author’s use of primary sources as well as of his own experiences only adds to his outstanding research. He conveys a full understanding of the technological and tactical advances through successive phases of carrier aviation.

While the first attempts at night carrier landings on USS Langley (CV 1) occurred in April 1925, interest in the concept of night combat operations had its real beginning in 1929, when the Navy first experimented with a predawn launch for a mass bombing exercise.

Innovation during World War II was driven by the increasing ability of the enemy in Europe to fight at night and by Japan’s interest in night naval operations. In April 1942, the U.S. Navy established the first development, test, and training unit for night-fighter equipment and operators, at Quonset Point, Rhode Island. In 1944 the first detachments of trained night fighters deployed with Admiral Marc Mitscher in Task Force 58.

Mitscher’s carrier-based fighters flew the first night combat air patrols against harassing Japanese Betty bombers and conducted the first night carrier offensive operations of the war.
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Postwar transition reduced the naval fighter-bomber inventories to minimum levels. However, the Navy retained its interest in night combat capability and formed two fleet all-weather training units to conduct the specialized training required for carrier night combat operations. By the late 1940s, the Soviet bomber and submarine threats had become evident. Brown describes in detail the evolution of aircraft, missions, systems, and training in response to the increasing threat.

At the beginning of the Korean War, the Navy was again ready to conduct night operations. The Navy night flyers helped the Marines retire from the Chosin reservoir, and they performed interdiction missions at night north of the thirty-eighth parallel. Brown discusses the innovative tactics developed by the aviators, as well as the introduction of jet-powered aircraft into the Navy’s order of battle.

Mature operations and a new era began in 1953, when the Navy introduced the angled-deck carrier to the fleet. New electronic systems rounded out significant improvements in the effectiveness of carrier aircraft. That same year, the first radar-guided air-to-air missile, the Sparrow, was tested; it would prove to be the turning point in U.S. night fighter capabilities.

After the Korean War, the Navy’s primary mission was focused on its nuclear strike capability. The introduction of aerial refueling with the newest fighters further improved their potential. By 1954 each of the fifteen carriers had a nightfighter squadron. An optical landing aid, the mirror, was introduced in 1955 aboard USS Forrestal (CV 59) and greatly reduced the number of carrier landing accidents. By 1960 a new era was evident in carrier aviation. Every carrier had completed the major modifications, installing angled decks and steam catapults, and the frequency of night sorties had increased sixfold. The new era of the 1960s saw the introduction of the F-8, F-4, A-5, A-6, and A-7.

Brown skillfully describes carrier operations during the Vietnam War, including the tempo, Alpha strikes, barrier combat and patrol (BARCAP), and the strike missions performed by the Navy. He then proceeds with the resumption of the Cold War missions and the introduction of the F-14 in 1973 and the F/A-18 in 1980.

The final chapter highlights the Navy’s performance in the Persian Gulf War, with its sustained twenty-four-hour operations; over half the missions were flown at night. As a final note, the author declares, “Clearly, carrier night air combat operations had proven their value to the U.S. Navy.”

*Dark Sky, Black Sea* should appeal to many interests. Aviation buffs will enjoy it for its vignettes; those in weapon system procurement will not be surprised to see rapid periods of development with emerging threats, and vice versa; and old, bold carrier pilots will particularly enjoy the personal accounts, which may revive memories of similar experiences. All naval aviators should have this book in their professional collections. It will be the best read on “Steel Beach,” and it will surely impress the air group commander.

**PUBLICATION**

Captain, U.S. Navy

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The Naval Underwater Systems Center (NUSC) was formed in 1970 by merging the Navy Underwater Sound Laboratory...
at New London, Connecticut, with the Navy Underwater Weapons Research and Engineering Station at Newport, Rhode Island. In 1992, NUSC ceased to exist as an entity, absorbed by the newly created Naval Undersea Warfare Center. The twenty-two years of its life included the most intense period of competition between the Soviet Union and the United States in the undersea cold war. Meeting the Submarine Challenge documents the role of NUSC in that competition.

NUSC was the Navy organization primarily responsible for the research and development of submarine sonar, combat (fire) control, weapons, and electromagnetic systems, as well as for surface-ship sonar and torpedo systems. To support these efforts NUSC also developed computerized warfare and systems analysis, test and experimentation ranges, and an organization to keep the laboratory’s technology base current. The book devotes a chapter to each major area; it provides some pre-NUSC history for context.

The documentation of the evolution of submarine combat and sensor systems starts with the earliest units, around the beginning of the twentieth century, through the advances of both world wars, into the Cold War. Particular attention is given to the development of the AN/BQQ-2, AN/BQS-6/13, AN/BQQ-5/6, towed array, and wide-aperture-array sonar systems. A similar treatment is presented for fire control systems, with primary emphasis on the Mark 113 series and the Mark 117/118 systems. With the advent of the Combat Control System Mark 1 (CCS Mk 1), sonar, fire control, and weapons control all began to merge into integrated systems, culminating with the development of the AN/BSY-1 and 2 systems. The history of surface ship antisubmarine system development includes the SQS-26 sonar, variable-depth sonar, the Light Airborne Multipurpose System (LAMPS), towed arrays, and the SQQ-89 sonar and fire control integrated combat system.

The chapter on submarine electromagnetic systems covers the entire field: communications antennae (buoyant cable, towed buoy, and mast mounted); periscopes and their capabilities; and electronic support measures. The chapter on weapons systems details the evolution of torpedoes and launchers, including submarine-launched weapons through the Mark 48 Advanced Capability torpedo, and surface-launched and air-launched torpedos through the Mark 50 Advanced Lightweight Torpedo. Antisubmarine missiles (Asroc and Subroc), submarine-launched antisurface missiles (Harpoon and Tomahawk), and Tomahawk land-attack missiles also are chronicled.

Of course, the development of technologically advanced undersea warfighting systems requires a parallel and substantial support infrastructure, and this book provides full coverage of NUSC’s capabilities. The test ranges and facilities at the Tongue of the Ocean in the Bahamas, Newport, Fishers Island (Long Island), Dodge Pond (near Niantic, Connecticut), Seneca Lake (New York), Bermuda, and others are discussed, along with their specific capabilities and functions. Additional chapters detail NUSC’s efforts to acquire capabilities in computer analysis and simulation.

Just as important as the technology were the individuals responsible for it. This book names those people, some of whom are little known outside their respective fields, while others are immediately recognized as giants in the submarine technology world. It is entirely appropriate that they are all given credit for their accomplishments. The world in general will
never know of their contributions to the national security of the United States during one of its most trying periods, but those of us who went to sea at least will know who it was that kept us ahead of the competition.

*Meeting the Submarine Challenge* is not a primer; it will not be easily accessible to the novice. While each chapter could easily be expanded into a book of its own, the authors have done an admirable job of including only that information necessary for the task at hand—a chronicle of NUSC’s achievements. Every page is packed with important details; very little fundamental theory or explanation is offered.

John Merrill is a former head of the NUSC Submarine Electromagnetics Systems Department, and Lionel D. Wyld is a former head of the NUSC Technical Writing Division. Their credentials are impeccable, and their technical bent is reflected in a no-nonsense, “just the facts, ma’am,” writing style. *Meeting the Submarine Challenge* is highly recommended for those who have sufficient background in the subject matter.

*CHISLEF HIGINS*
*Captain, U.S. Navy*

**USS Pampanito: Killer-Angel** represents a remarkable accomplishment of interviewing and research. Michno, the son of a *Pampanito* crew member, Motor Machinist’s Mate Frank B. Michno, conducted more than twenty-five interviews of his father’s shipmates to draw together *Pampanito’s* story from the perspective of its crew. Michno used additional oral-history interviews by Clay Blair. The book’s bibliography of published sources is one of the most extensive of recent books about the submarine service in World War II. The result of all Michno’s work is a comprehensive account that succeeds nicely in giving the reader a view of life on a World War II submarine as experienced by the men whose often unnoticed contributions were essential to success: torpedomen, machinist’s mates, sonar and radar operators, electricians, yeomen, and sailors of a dozen other ratings.

It has been said that no man is a hero to his butler, and this quip applies to the relationship between *Pampanito*’s crew and many of its officers. *Pampanito*’s enlisted men (and a few officers) here speak plainly and directly about the war. Their recollections range from the torpedoman who judged his captain to be too conservative to the disgruntled steward who spit routinely in the commanding officer’s coffee.

The book begins with the crew and the submarine at the building ways at Portsmouth Naval Shipyard and continues through its training, fitting out, and transit to Pearl Harbor to enter the war. The book covers all six war patrols, some of which were evaluated as unsuccessful. Readers will find the crew’s first-person accounts of liberty in ports in Hawaii, Australia, and on Midway Island rollicking and amusing. Michno also notes the hard work and personnel changes that accompanied every refit period.

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**USS Pampanito** (SS 383) made six war patrols in 1944 and 1945, sinking five ships and rescuing a record number of Allied prisoners of war. Decommissioned in 1945, *Pampanito* survived the postwar years to earn designation as a national historic landmark in 1986. Today the carefully restored submarine is open to the public at the San Francisco Maritime National Historic Park.
Pampanito’s greatest achievement was its rescue of seventy-three Australian and British prisoners of war from enemy waters, the single greatest such recovery of the war. Michno makes this event the centerpiece of the book. On 12 September 1944, Pampanito and USS Sealion (SS 315) attacked a convoy carrying war materials to Japan. Unknown to the American submarines, two of the ships they sank had on board more than 1,360 Allied prisoners of war. Michno carefully builds the narrative leading to the sinking, with a well written and heartrending description of the soldiers’ original capture, imprisonment, and forced labor on the Burma-Siam railway.

Not realizing that its attack had simultaneously freed and doomed hundreds of Allied soldiers, Pampanito continued chasing the convoy. For some seventy-two hours the oil-soaked men floated on rafts and debris as the number of their dead steadily increased. Pampanito discovered the prisoners only when it passed through the area a second time. As the sub approached the bedraggled survivors, its officers assumed they were Japanese. Michno writes compellingly of their uncertainty about what to do.

The wretches in the water were not the enemy, and Michno’s account of their rescue and the care given them by Pampanito’s crew offers a clear understanding of the prisoners’ condition, the crew’s feelings toward them, and the instant bond of friendship and caring that developed between survivors and rescuers. Michno makes good use of first person accounts from the crew and the survivors as he describes many emotional encounters.

USS Pampanito: Killer-Angel contains much to recommend it. Michno does a good job of explaining details unfamiliar to nonsubmariners and of providing historical and technical background on everything from diesel engines to ULTRA. In addition, the book includes twenty-seven black-and-white photographs, many taken by the crew. Fourteen maps help the reader locate the sub’s patrol areas and visualize its torpedo attacks. The footnotes are excellent.

USS Pampanito: Killer-Angel offers a deckplate view of the life of a submarine’s crew in an account that is well worth reading and owning.

William Gazini
Director, Naval Undersea Museum
Keyport, Washington.


With this volume, the Navy Records Society (the book’s U.K. publisher) adds some of the key intelligence documents of the Battle of the Atlantic to its series of published Royal Navy historical records. The defeat of the German U-boat threat during the Second World War was made possible by a massive combined intelligence effort by the American and British navies. Both sides cooperated to exploit decrypted German naval message traffic—the intelligence source known as ULTRA. The overwhelming intelligence “take” from this source—almost fifty thousand decrypted messages on the U.S. side alone—had to be digested into usable form for the senior naval leadership.

On the British side, all available intelligence on the U-boat threat was conveyed to decision makers through the Admiralty reports known as U-boat Situations and U-boat Trends. Situations was a weekly update on worldwide U-boat dispositions; each was usually several pages
long, consisting of a table of known U-boat locations followed by textual commentary on their operations. *Trends* was a shorter, irregularly issued report covering changes in German U-boat employment and technology. Both were written by Rear Admiral J. W. Clayton and Commander Rodger Winn, heads of the Admiralty Operational Intelligence Centre and Submarine Tracking Room, respectively. They represent collectively one of the best sources of insight into what the Allies knew about the German U-boat campaign at any given moment.

Editor David Syrett, also the author of *The Defeat of the German U-Boats: The Battle of the Atlantic*, has compiled these reports, dating from late 1941 through the end of the war, into a useful and convenient volume. His introduction provides a clear, succinct overview of the kinds of intelligence that were incorporated into the reports, the American and British collection process, and a short selected bibliography. Unlike many document collections, this work includes a comprehensive and convenient subject index.

The reader familiar with naval intelligence reports will be impressed with the clear, candid style employed by Admiralty intelligence. For example, the 12 June 1944 *U-boat Situation* states that “the U-boat reaction to OVERLORD was prompt, energetic but remarkably confused.”

The reports also provide insight into the ten months of 1942 when a change in the German code left the Allies unable to read U-boat message traffic. The Admiralty continued to estimate U-boat movements using other intelligence sources, but a comparison of intelligence reports from each period underscores the importance of ULTRA to Allied operations. In the words of one report, without ULTRA “an accurate estimate of the number and disposition of U-boats operating in the Atlantic is not possible” (*Situation*, 23 February 1942).

What is lacking in this work, however, is a sense of how specific intelligence documents were used. It is clear that these reports circulated at the highest levels of the Admiralty, which included the First Sea Lord and certain other flag officers.

Syrett comments on the difficulty of reconstructing exactly what intelligence was passed to senior naval leaders, but his decision not to reproduce even the limited routing information available for each document deprives the reader of useful insight. It is also not clear what reports, or parts of them, were shared with the American naval leadership.

According to his introduction, Syrett presumes that “his readers will be naval historians with a fairly high level of expert knowledge.” While not for casual reading, then, this well edited volume provides naval history students, as well as nonspecialist historians, convenient access to some of the key documents of World War II naval history.

David Syrett
Norfolk, Virginia


Mention of the American Civil War invokes images preserved for us by Matthew Brady—the encampments, the battlefields, and the aftereffects of the battle—in short, images of conflict on
land. Somewhere in our education we viewed the portraits of famous generals like Robert E. Lee and Ulysses S. Grant, who led Confederate and Union armies. We studied the major battles of Gettysburg and Antietam, and the surrender at Appomattox. We were made to understand the moral struggles confronted by President Abraham Lincoln and the reasons for his Emancipation Proclamation. The works of many fine authors have chronicled all these events. Yet rare is the mention of naval action. An avid reader of the war may be able to identify the four most famous naval battles (Mobile Bay, New Orleans, the battle between the ironclads USS Monitor and CSS Virginia, and the engagement between the USS Kearsarge and CSS Alabama), but little thereafter. Until recently there has been a lack of research on this topic, but within the last two years, new attention has been given to the U.S. Navy and the Civil War.

Raiders & Blockaders: The American Civil War Afloat is an excellent primer of Civil War naval history. While its depth of material is good, it is its breadth that makes it stand out.

Three dedicated Civil War naval historians have written nineteen essays for this collection. Thoroughly researched and well documented, these accounts take the reader from the lively action of major battles to the details of small engagements: from the vivid accounts of famous admirals to tales of the average sailor. Each is written and illustrated in a style that is easy and enjoyable to read. Fifteen essays have appeared elsewhere, in the Naval War College Review, Civil War Times Illustrated, and America's Civil War. While all the famous men and their engagements have been included, it is the mention of little-known facts, perhaps about the Confederate ironclad CSS Louisiana or the feisty Union admiral Louis Goldsborough, that sets this book apart from others.

Bernard Brodie, eminent scholar on world politics and military policy, and thought by many to be the founder of modern strategic theory, wrote this about the Civil War: "For the first time the achievements of the industrial and scientific revolution were used on a large scale in war." "Technology Afloat," by William N. Still, Jr., the fourth essay in Raiders & Blockaders, examines how new inventions and key technologies were incorporated into naval warfare in the 1860s. Among these were the adoption of steam propulsion on warships and the developments in naval ordnance, such as shell guns, improvements in interior ballistics, rifling, and the transition to breech loading. In addition, while mine warfare, undersea warfare, and ironclad warships were not new in the 1860s, the Civil War became a proving ground for these new ships and weapons. The origins of many of today's weapons, ship designs, and strategies can be directly traced back to the Civil War.

In 1861, the U.S. Navy had a three-point strategy to help win the Civil War. The first was to blockade the Confederate coastline, the second was to support the army in river operations, and the third was to counter Southern advances in technology, especially ironclad warships. The Union navy approached the new threat of ironclad warships by building vessels of three experimental classes. The first ship was the USS Galena. While representing an attempt at innovation, it was still a conservative design and proved to be not very successful. The second effort was the class that began with the USS Monitor. These ships were small, inexpensive, and quick to build. However, their
high-risk design was viewed with some reservation by the Navy Department leadership. Therefore, for security, the U.S. Navy contracted for a third design, which became the USS New Ironsides.

An armored frigate, it was the first American seagoing ironclad. Many innovations in the areas of gunnery, protection (armor), and seaworthiness made this ship far ahead of any ship of its time. Although USS New Ironsides was unique and capable, it was the only one of its class; in contrast, "monitor mania" resulted in fifty ships. The author does a nice job explaining the reasons and choices in the shipbuilding process.

New Ironsides's operational exploits were as unique as the ship itself. It took more hits from enemy guns than any other Federal ship but did not lose a single man to them. Its endurance was unmatched; it maintained uninterrupted blockade duty for sixteen months during the siege of Charleston, South Carolina. The account by William Roberts, a retired U.S. Navy surface warfare officer, of the first torpedo attack delivered by a semi-submersible, the CSS David, against the New Ironsides is excellent in its detail. The section on the contribution of New Ironsides during the capture of Fort Fisher is an early vision into the "looking glass" of future warfare and joint operations.

Even knowledgeable Civil War enthusiasts will be surprised to discover that the naval action in the Civil War was so broad, varied, and intriguing. These two books bring these adventures to life. Both books are enjoyable and informative, and they offer an enhanced appreciation of the growth of naval technology that has shaped the Navy of today.

WAYNE J. HOWE
Naval War College


Jack Sweetman's Great American Naval Battles is an enjoyable series of essays from a distinguished team of naval historians that includes such well known authors as Edward L. Beach and E. B. Potter. Sweetman, himself a renowned naval historian, writes a comprehensive introduction that lays out the framework for the essays and provides the rationale for his selection of what he argues are the nineteen most significant naval battles in American history. Almost half (eight) come from the Second World War, seven of these from the Pacific theater. The selection is largely predictable but allows detailed looks into America's great naval leaders and the birthplaces of modern naval tradition. Included are John Paul Jones at the battle off Flamborough Head, Oliver Hazard Perry at Lake Erie, David Farragut at Mobile Bay, George Dewey at Manila Bay, and Raymond Spruance at Midway. These essays are well crafted and offer fresh insights into the events of these otherwise well known battles.

Even more interesting are descriptions and arguments for naval battles that are less well known and yet, according to the authors, have had significant strategic impact in American history. These are essays like James Martin's "Battle of Valour Island," which argues that Benedict Arnold's naval defense of Lake Champlain in the fall of 1776 was crucial to the defeat of Burgoyne a year later at Saratoga. Equally interesting, although by no means new, is Edward L. Beach's detailed description of the failure of senior leadership in Washington during the critical days and hours before the
Japanese attack on Pearl Harbor. It does not completely exonerate Admiral Husband E. Kimmel, but it does bring out critical failures in the timely distribution of intelligence. Moreover, it makes the case that the poor material readiness of the Pacific Fleet on 7 December 1941 had more to do with inadequate congressional funding than with negligent naval leadership.

While all of the essays do admirable jobs of conveying the critical details of engagement, some provide greater insight into strategic settings and effects than others. John Hattendorf’s essay on the battle of Manila Bay does a particularly good job of setting the strategic stage and drawing out the strategic consequences. On the other hand, a few essays go so deep into tactical maneuver that readers sometimes struggle to keep their focus on the big picture. I am thinking here of Mark L. Hayes and his account of the Civil War battle of New Orleans. While this piece is clear, I found myself getting lost in the overabundance of detail. This brings to mind my only serious reservation with this book: essays of such detail and depth warrant greater support by illustrations and maps. While some excellent choices have been made in this area, I think the reader could have been better served with even greater use of charts and pictures, especially in essays like Hayes’s, where so much “fine grain” is provided.

Other naval battle essays included in this anthology are Hampton Roads, Santiago, the Coral Sea, Guadalcanal, the Philippine Sea, Leyte Gulf, and Okinawa. The book concludes with the only essay that deals with a naval battle after the Second World War; it is about Operation PRAYING MANTIS, which took place in 1988, during the tanker war in the Persian Gulf. That essay looks to the future of naval battles, noting both the increased capabilities of naval forces and the persistent influence of political authority on the waging of limited conflict.

Like any good anthology, this book provides a solid collection of sophisticated, well researched, and well written essays that encourage the reader to wander through its contents to focus on new thoughts and insights in areas of greatest interest. After reading each essay, I had a strong inclination to read just one more before putting the book down. It would be perfect for the new student of naval history, after core texts by the likes of E. B. Potter, S. E. Morison, or Sweetman himself. For the more widely read naval historian, it is like a bottle of fine brandy that can be sipped and enjoyed in small doses but provides lasting pleasure.

BRYAN LUCAS
Naval War College


This new book, which could aptly be called the latest salvo in the culture war to shape the future of the U.S. military, holds no surprises. As might be inferred from the title, the author believes that the armed forces have made far too many concessions to political correctness in order to attract and retain women in uniform. In her view, the concessions have resulted in lowered standards that have inevitably reduced the combat effectiveness of the military.

Readers who agree will find the book well written, easy to read, and full of numerous examples illustrating the degree to which political correctness has been
carried within the armed forces. The only complaints that such readers might have are that it really covers no new ground and that the lack of footnotes makes it difficult to follow up on the material. The book advances the cause of those resisting what they call the "feminization" of the military in one way only: because it is written by a woman, critics cannot simply dismiss her ideas—as they would if the author were a man—by saying she doesn’t "get it" with respect to the problems women face in society.

Readers who believe that the armed forces should not allow discrimination against women can expect to be upset by Gutmann’s analysis. I suspect that her critics will use several lines of attack. One is that much of her evidence is anecdotal. That criticism may be valid, but the author obtained the “anecdotes” through a large number of interviews and personal visits to military units. Next, she will undoubtedly be accused of blaming the victim. In my view, however, the author’s beef is not with women in the service but with the high-level politicians—both in and out of uniform—who would rather compromise the combat readiness of the armed forces than deal with the inconvenient truth that men and women are not equally suited to all roles in the military.

In the absence of incontrovertible evidence to support limiting the role of women to some degree—evidence that may be impossible to obtain in peacetime—most individuals on both sides will remain locked in their positions. As a result, The Kinder, Gentler Military is not likely to change many minds. Before such change becomes possible, both sides will have to reach some type of consensus regarding the role of the military and what types of missions it will be called upon to carry out in the future. That could allow more reasoned discussion about whether or not men and women are equally qualified to execute those missions.

Proponents of reducing or eliminating restrictions on women in the military emphasize the military’s role as a vehicle for driving social change. Advocates of this point of view also tend to view future war as a high-tech affair in which such qualities as aggressiveness, bravery, physical strength and endurance, and readiness to take risks will no longer have the importance they had in the past.

As Gutmann discovered in the course of her research, this shift in values is already being reflected in much of the initial training for members of today’s military. The Kinder, Gentler Military points out numerous examples of how such training is being made less stressful, how competition is downplayed, and how effort is valued as much as results. How far these changes reflect the integration of women into formerly all-male training, as opposed to overall changes in our society that affect both sexes, is difficult to tell. Do not look to the military for an unequivocal answer. The author illustrates how sensitive the military is to these issues; two examples suffice.

Gutmann quotes an Army training regulation declaring, “All soldiers, regardless of gender, train to a single standard.” In spite of that assertion, all the services, including the Army, have lower physical performance standards for women. The result is aircraft mechanics who cannot carry their toolboxes to the flight line, truck drivers who cannot change a tire, and sailors who cannot carry an end of a litter with a wounded person on it. The services have found ways to work around those difficulties, but they all require additional people to do jobs that were formerly done by one man.
Another controversial issue that Gutmann deals with is pregnancy. The services have adopted the position that pregnancy presents no greater problem than do other temporary disabilities, even though it makes women four times less deployable than men. To counter the deployability problem, feminists point out that women become more deployable than men if losses from pregnancy are not counted. That may be true, but it is meaningless to the units who have to deploy shorthanded.

That argument also assumes that both pregnancy and the injuries that cause most young men to become temporarily disabled are neutral with respect to soldierly virtues. If pregnancy has no adverse impact on being a soldier, neither does it have any advantage. People who occasionally injure themselves by getting into fights, driving motorcycles too fast, or playing sports with excessive aggressiveness are a different story. Those are exactly the kinds of individuals who win battles.

If you agree with that point of view, you will almost certainly find this book to your liking. If not, reading it will probably just elevate your blood pressure.

Theodore C. Gatchel
Naval War College
FROM THE EDITORS

In July of this year, Colonel John E. Greenwood, U.S. Marine Corps (Ret.), retired as the editor of the Marine Corps Gazette after a tenure of over twenty years. Through his constant efforts to make the Gazette useful to Marines—whether by rigorous article-acceptance standards, careful copyediting, contests and decision games, the launching of a Website, his forthright approach to controversial issues, or participation in conferences of military periodical editors—he has made it invaluable to many other readers as well. We wish all the best for him, and for the journal to which he made such important contributions.

CONTINENTAL ASSOCIATION OF MARITIME REVIEWS

In late June 2000, in a conference held in Valparaiso, Chile, the Naval War College Review became a founding member of the Continental Association of Maritime Reviews, whose purpose is to further “cooperation between the naval reviews of the continent [actually, the hemisphere], with the purpose of contribution to the diffusion of naval thought.” The other members are leading naval journals of Argentina, Brazil, Canada, Chile, Colombia, Ecuador, El Salvador, Mexico, Peru, Uruguay, and Venezuela. The rotating chairmanship will be held for the first year by Chile, whose idea the association was.

What this means immediately to readers is that it is now much easier to obtain subscriptions to, indexes of, and offprints from the member journals; simply contact NWCR’s managing editor. Eventually hyperlinks will be available, as the member reviews establish themselves on the Web, and articles of interest in member journals may be reprinted in others. Also, an international journal, a hemispheric review, may ultimately result.

ERRATUM

In our Summer 2000 issue, James Gleick’s Faster: The Acceleration of Just About Everything was reviewed (pp. 234–6) by Theophilos (not Theodore) Gemelas. The editors regret this error, which has been corrected in the online version of the issue.
OF SPECIAL INTEREST

WINNERS OF THE HUGH G. NOTT PRIZE FOR 1999

The President of the Naval War College has announced the winners of prizes for the finest articles (less those on historical subjects) appearing in the Naval War College Review in 1999:

First Prize ($500) Dr. Paulette Otis, for “Ethnic Conflict: What Kind of War Is This?” (Autumn)

Second Prize ($300) Dr. Douglas Porch, for “The Taiwan Strait Crisis of 1996: Strategic Implications for the United States Navy” (Summer)

Third Prize ($200) Dr. Susan L. Woodward, for “Failed States: Warlordism and "Tribal’ Warfare” (Spring).

WINNER OF THE EDWARD S. MILLER HISTORY PRIZE FOR 1999

Through the generosity of the distinguished historian Edward S. Miller, the President of the Naval War College has awarded a prize to the author of the finest article on a historical subject to appear in the Naval War College Review in 1999.

The winner ($500) is Dr. Kathleen Broome Williams, for “Scientists in Uniform: The Harvard Computation Laboratory in World War II” (Summer).

These awards are made with the support of the Naval War College Foundation, a private, nonprofit organization dedicated to improving the quality of the educational resources of the Naval War College in areas where government funds are not available.