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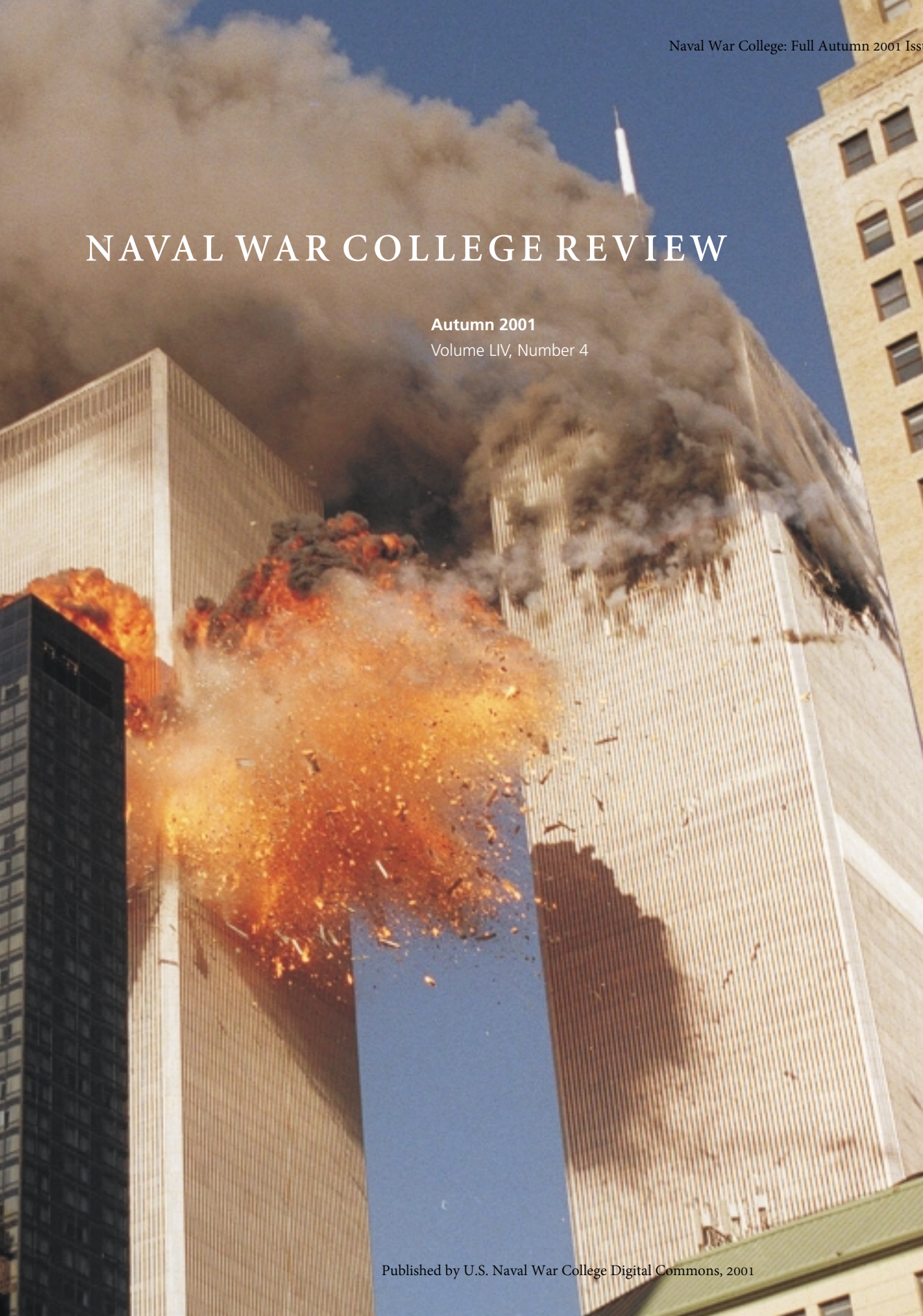

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Cover

WHY WE FIGHT. At 9:03 a.m., a hijacked airliner strikes World Trade Center Tower Two in New York City, as Tower One (right), struck eighteen minutes before, burns. Thirty-seven minutes later, a third hijacked airliner will strike the Pentagon in Washington, D.C.; at 10 a.m., a fourth will crash in Pennsylvania. At 8:30 that evening, President George W. Bush will speak to and for the nation: "Today, our fellow citizens, our way of life, our very freedom came under attack in a series of deliberate and deadly terrorist acts. . . . Thousands of lives were suddenly ended by evil, despicable acts of terror. The pictures . . . have filled us with disbelief, terrible sadness, and a quiet, unyielding anger. These acts of mass murder were intended to frighten our nation into chaos and retreat. But they have failed. . . . A great people has been moved to defend a great nation."

On 20 September the president informed the world how it would do so: "Our response involves far more than instant retaliation and isolated strikes. Americans should not expect one battle, but a lengthy campaign. . . . It may include dramatic strikes . . . and covert operations. . . . We will starve terrorists of funding, turn them one against another, drive them . . . until there is no refuge. . . . And we will pursue nations that provide aid or safe haven to terrorism."

The Naval War College's new President, Rear Admiral Rodney P. Rempt (whose President's Forum begins on page 7), has mobilized the institution to support the nation's new war, with special studies, faculty task forces, symposia, and scholarship. An example of the latter is our lead article, by Professor Ahmed Hashim. Also, Robert Harkavy's geostrategic study, though written before the events, speaks directly to issues that must now be squarely faced.

Chao Soi Cheong, AP Wide World Photos

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Jointness

Address to the Naval War College

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Rear Admiral Rempt was raised in the Los Angeles suburb of Van Nuys and graduated from the U.S. Naval Academy with the class of 1966. He holds master's degrees in systems analysis from Stanford University and in national security and strategic studies from the Naval War College. Initial assignments at sea included deployments to Vietnam aboard USS Coontz *(DLG 9) and USS* Somers *(DDG 34). His first sea command was USS* Antelope *(PG 86), one of four missile-armed patrol gunboats homeported in Naples, Italy.*

Rear Admiral Rempt commanded USS Callaghan *(DDG 994) during two western Pacific/Indian Ocean deployments, and USS* Bunker Hill *(CG 52), homeported in Yokosuka, Japan. While aboard* Bunker Hill, *he served for eighteen months as the Anti-Air Warfare Commander for Seventh Fleet.*

Duties ashore included three years in the weapon prototyping office of the Naval Sea Systems Command as the initial project officer for the Mark 41 Vertical Launch System; on the staff of the Chief of Naval Operations (CNO) as program coordinator for the Aegis Weapon System; as the director of the prospective commanding officer/executive officer department at the Surface Warfare Officers Schools Command, in Newport; and as the Director, Anti-Air Warfare Requirements Division (OP-75) on the CNO's staff. Rear Admiral Rempt also served in the Ballistic Missile Defense Organization, where he initiated the development of Naval Theater Ballistic Missile Defense, continuing those efforts as Director, Theater Air Defense (N865) on the CNO's staff.

In July 1996 Rear Admiral Rempt assumed duties as Program Executive Officer, Theater Air Defense, additionally serving as the U.S. Steering Committee member for the Nato Seasparrow and Rolling Airframe Missile multinational programs. In May 1998 he was assigned as the first Deputy Assistant Secretary of the Navy for Theater Combat Systems; in that capacity he was the principal advisor on the introduction of naval theater ballistic missile defense and the development of advanced shipboard combat systems. In June 2000, Rear Admiral Rempt was assigned as the first Assistant Chief of Naval Operations for Missile Defense. In September of that year, he additionally became Director, Surface Warfare (N76), responsible for all surface warfare personnel initiatives, ship programs, and combat systems. Rear Admiral Rempt assumed duties as the forty-eighth President of the Naval War College on 22 August 2001.

His personal awards include the Legion of Merit (three awards), the Meritorious Service Medal (three awards), and the Navy Commendation Medal (three awards, the second with combat V device).

PRESIDENT'S FORUM

We know that this war is different in nature from any we have fought in the past. It is not a war for territory, resources, or hegemony.

THESE ARE MOMENTOUS TIMES. While I write this in late October, the nation is at war. As President George W. Bush stated to a joint session of Congress on 20 September 2001: "We are a country awakened to danger and called to defend freedom. Our grief has turned to anger and anger to resolution. Whether we bring our enemies to justice, or justice to our enemies, justice will be done."

It is both a great honor and a great responsibility to take command of the Naval War College at this point in history. To the faculty and staff of the Naval War College and the Navy Warfare Development Command; to present and past students; and to our entire Navy and Marine Corps, as well as those of our allies and friends, I promise I will do my utmost to provide sound guidance and strong encouragement in the months and years ahead. My assignment is a dream come true—a chance to educate tomorrow's leaders and to develop a vision of the future Navy they will command.

OUR MISSION

In Newport we have two clear, mutually supporting missions. One is to educate the future leaders of our navy and our nation. Led by the Provost, Rear Admiral Barbara McGann, our distinguished faculty and staff provide a world-class education—focusing on the principles of war. The credentials and accomplishments of our faculty are phenomenal, and the awards and accolades they have received are too numerous to mention. I know they would be the first to insist, however, that their greatest satisfaction lies in seeing their students who have risen to high rank using their Naval War College education on behalf of our great nation.

Our other mission is to define the future of the Navy through the development of new operational concepts, experimentation at the fleet level, and refinement of tactical doctrine. The staff of the Navy Warfare Development Command, led by Rear Admiral Bob Sprigg, is propelling the Navy into the twenty-first century. Together with the Strategic Studies Group, led by Admiral Jim Hogg, they are working to define the next Navy and the Navy after next. Whether testing new hull forms, conceiving unmanned air vehicles, or exploring the potential of networks to allow real-time targeting, they are in the process of transforming our service. This is exciting work!

These two missions—education of leaders and definition of the Navy—are the key ingredients of keeping our Navy strong. They are especially pertinent as the students of past classes wrestle with the great issues that face our nation in the Terror War.

THE TERROR WAR

History has taught us—and our recent experiences in Vietnam, Iraq, Kosovo, and elsewhere have confirmed—that we must clearly understand the fundamentals of war:

- Goals: our own, and those of our enemy;
- Strategies: alternate paths for achieving our goals and thwarting those of our enemy;
- Assessment: how we know whether we are winning or losing;
- End-state: the situation we desire at the end of the war.

The table on the next page lists ten questions our strategic and political leaders must consider as we embark on a war. Armed conflict is a two-sided or multisided endeavor, and outcomes cannot be guaranteed. Few go to war to lose, but in a struggle between opposing sides, one is bound to lose. Considerable effort must be undertaken to ensure we have explored all the dimensions of national-level strategy and policy issues so that we clearly understand the context in which we are fighting. In order to win, we need to know what we seek to accomplish and then ensure that the means are sufficient and appropriate to achieve that end.

Identifying Our Enemies. President Bush has helped us in defining who our enemies are—not only terrorists and their support networks but, more importantly, "nations that provide aid or safe havens to terrorism. . . . [A]ny nation that continues to harbor or support terrorism will be regarded by the United States as a hostile regime." Some would believe that the notion of nation-states does not apply in the Terror War. However, history reminds us that pirates, bandits, or

QUESTIONS OF STRATEGY: THE TERROR WAR

1. What are U.S. goals and objectives?
   - What must we do to win?

2. What are our enemies' objectives?
   - What must they do to win?

3. What kind of a war are we involved in?
   - Resources? Influence? Ideology?

4. Who or what are our enemies?
   - How do they assess us as adversaries?

5. What are our enemies' strategies?
   - What is their center of gravity?

6. What should U.S. strategy be?
   - What are the alternative approaches?

7. What are our coalition objectives and strategy?
   - How important is coalition support?

8. For what purposes is military power applicable?
   - How should we apply it?

9. What end-state are we looking for?
   - What constitutes victory?

10. How can we assess how well we are doing?
    - What are the metrics?

others who live outside the law cannot long survive if the state they live in pursues them with diligence. It is the safe haven and support of sympathetic nations that enable terrorists to go on. So it really does come down to nation-state versus nation-state—those that harbor terrorists versus those that abhor them. States that support the rule of law cannot rationally support terrorism at the same time.

Our president has called for waging war against any nation that continues to harbor or support terrorists; such support is the terrorists' center of gravity. If we can dismantle their support structure, hound them mercilessly in every nation of the earth, and go after any group or nation that supports them, our war will be successful. We will reach the point where terrorists cannot take refuge or have the wherewithal to plan another sick event. The world will have ousted this cancer from our midst.

Of course, today only a few nations openly sponsor, support, or allow terrorists within their borders. The world rightfully has spoken out in indignation against this menace to freedom and the rule of law. But rhetoric is not enough to stop terrorists. States defiant in their support of terrorism must be compelled by force to accept the rule of law embraced by the world.

Using Military Force. The president's ultimatum was the proper first step to warn complicit governments of our intention to use military force. The terrorists, their support organizations, and the governments harboring them are subject to attack. How we use military force is, of course, critical. We must demonstrate that our enemy is terrorists—not Afghans, Arabs, or Muslims—and we must do so in word and deed, especially in our use of military force. We want to avoid encouraging more terrorist attacks through injuring innocent civilians, causing extensive collateral damage, or committing human rights abuses. In this war, civilian casualties and general suffering among the Afghan population would probably embolden support for the terrorists. In this case "a little stick," judiciously applied, may be much more effective than the "big stick" of large-scale attacks.

Once our overall war aims and resulting strategies are in place, defining suitable and achievable objectives for military action will become critical. In this we will have to curb our expectations of what military force might actually accomplish; not all our goals are achievable with bullets and bombs. Designing a successful military campaign against the shadowy and elusive worldwide terrorist network is a tall challenge. In the end, the overall effort will have to be political, diplomatic, and even economic if we are to achieve the president's goal of finding, stopping, and defeating "every terrorist group of global reach."

The terrorists who attacked the United States on September 11 aimed at one nation but wounded an entire world. Rarely, if ever, has the world been as united as it was on that terrible day. It was a unity born of horror, of fear, of outrage, and of profound sympathy with the American people. This unity also reflected the fact that the World Trade Center, in this uniquely international city, was home to men and women of every faith from some 60 nations. This was an attack on all humanity, and all humanity has a stake in defeating the forces behind it.

KOFI A. ANNAN, 21 September 2001

We know that this war is different in nature from any we have fought in the past. It is not a war for territory, resources, or hegemony. It is a war of freedom against tyranny, justice against mass murder, open markets and capitalism against malnutrition and unrelieved poverty. Secretary of Defense Donald Rumsfeld helped define how we will know we have won: "The ultimate victory in this war is when everyone who wants to can . . . get up, let your children go to school, go out of the house and not in fear, stand here on a sidewalk and not worry about a truck bomb driving into us."

What we are fighting for are our basic beliefs and freedoms as Americans, the freedoms guaranteed us by our Constitution, Bill of Rights, and the democratic rule of law. These freedoms were violently taken away from those who died in lower Manhattan and the Pentagon. That is why we must act.

RODNEY P. REMPT
Rear Admiral, U.S. Navy
President, Naval War College

THE WORLD ACCORDING TO USAMA BIN LADEN

Ahmed S. Hashim

Since 11 September 2001, a day etched in the memories of all Americans, Usama Bin Laden has replaced Saddam Hussein as Public Enemy Number One. This is hardly surprising, given the growing consensus that the Saudi fugitive and his shadowy Al-Qaeda network were responsible for the deadliest terrorist attack on American soil, the single deadliest act of terrorism anywhere to date.

For over a decade Iraq's Saddam Hussein had been perceived as a "new Hitler," a totalitarian thug with nasty weapons and an age-old quest for personal and national aggrandizement. Americans felt they understood his agenda of territorial irredentism and greed. Moreover, while he "talked the talk," he could not "walk the walk." His threat to unleash the "mother of all battles" with his vaunted army turned into the "mother of all embarrassments," the humiliating defeat of that army in February 1991.

Bin Laden, on the other hand, is terrifyingly different for most Americans. Perhaps many were vaguely familiar with him as a result of the bombings of the U.S. embassies in Nairobi, Kenya, and Dar-es-Salaam, Tanzania, in 1998, and the attack on the USS *Cole* (DDG 67) in Aden Harbor in 2000, all of which he is suspected of masterminding. Now, as a result of terror attacks by which he "reached out and touched" the homeland, Bin Laden is known, at least by name, to every American.

The attacks were carried out against the symbols of American economic and military power, the World Trade Center and the Pentagon. There are indications that the White House, the symbol of American political power, was also a target. The attacks of 11 September 2001 constituted not only a political, economic,

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and psychological blow but also a cultural shock to Americans. Bin Laden's ideas and visions are unfamiliar to most Americans, who find the idea of a holy war in this day and age bizarre. Questions abound: "Why do they hate us?" "What does he want?" Indeed, Bin Laden's goals remain the least understood aspect of this crisis.

His methods were unfamiliar to most Americans, who have indeed suffered from acts of terror committed against them and their country's interests, but *overseas*. Large-scale terror attacks at home have been rare. The conspiracy to bring down the World Trade Center towers in 1993 and the bombing of the Alfred P. Murrah building in Oklahoma City in 1995 were significant acts of terror, but they pale by comparison with the events of 11 September 2001. The latter attacks were diabolically brilliant in conception and execution. The perpetrators did not use "normal" weapons of war—they attacked the United States not with intercontinental ballistic missiles but with commercial aircraft used as guided missiles—and the result was the deaths of thousands of innocent people. If this was not terrorism, what is?

We can eschew a long and ultimately futile discussion of the definition of terrorism. Much ink has been spilled on this topic.[1] The definition used by the U.S. government (and analyzed in detail by Paul Pillar) is sufficient for the purposes of this paper: "premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience."[2]

The 11 September perpetrators were not ten-foot-tall "supermen" but "ordinary," in some cases well educated, men who planned their mission well but who also made many mistakes prior to the commission of their act.[3] Moreover, the hijackers were not armed with the latest in sophisticated gadgetry but with box cutters and knives. Nonetheless, and most important, they were willing to lay down their lives. They were of a breed of men that one Israeli terrorism expert has called "Islamikaze."[4] But they are not a new phenomenon, their kind having appeared in Lebanon in the early 1980s. Suicide attacks have plagued Israel since the mid-1990s and have caused a considerable number of casualties during the cycle of violence between Israelis and Palestinians that erupted in October 2000.

However, apart from events like the assault on the U.S. Marine barracks in Beirut in 1983 (a bombing that killed 241 Marines, sailors, and soldiers) and the suicide attack on the USS *Cole* by two men in a speedboat, the last time Americans had come face to face with this culturally different form of warfare was in the Pacific War against the Japanese. The terror attacks of 11 September 2001 spawned a vast "instant" literature seeking to answer a large number of disparate questions. What do these terror attacks on the continental United States mean for homeland defense and national missile defense? Who is Usama Bin Laden?

How were the attacks on the World Trade Center and the Pentagon planned? How does the shadowy Al-Qaeda network function?

There has been very little writing, however, that deals with Bin Laden's thought and the rationale for the Al-Qaeda. Raymond Tanter describes Bin Laden as a freelancer who is completely independent of states yet operates within a state and may collaborate with rogue regimes. However, Tanter offers little about the man and his ideas.[5] Yossef Bodansky has produced a vast compendium of myths, facts, and half-truths, all lacking documentation.[6] Mary Anne Weaver presents a biographical summary of Bin Laden's life but no detailed analysis of his philosophy.[7]

Major studies of Bin Laden are reported to be on the way, but in the meantime, a short piece by Michael Dobbs in the *Washington Post* and a presentation by Dr. Bard O'Neill on Bin Laden's view of the world warrant mention.[8] By far the most detailed and complex analysis of the religious background of Bin Laden's thought is a study by Rosalind Gwynne.[9]

What, then, is Bin Laden's philosophy, with its origins, message, and goals—in other words, his worldview? In times of crisis, tragedy, or war, human beings tend to view things in Manichean terms—as a struggle between the good and the bad, viewed as equally powerful—and to portray an antagonist as unmitigatedly evil. However, the best way ultimately to defeat one's enemies is to understand them.

Our quest for understanding relies on a three-level methodological framework. First, in order to understand Bin Laden's conception of world order, two interrelated analytical steps are necessary. We need to understand the political, cultural, and social milieu, or context, within which Bin Laden arose—some of the political ideas of the Islamists who influenced him.

The context of the Arab world in particular, and the Islamic world in general, is one of turmoil as a result of the declining political legitimacy of rulers and of massive socioeconomic and identity crises. Relatedly, we need to understand that Bin Laden is not among the foremost Islamists; nor are his ideas particularly original. Over the past two decades, Islamists have sought to explain the causes of the political, socioeconomic, and identity-related crises of their own societies and of the Islamic world and to provide solutions to them. Bin Laden drew many of his ideas from such Islamists, in particular the Egyptian Muhammad Abdel Salam Al-Farag, who was executed in 1982 for his role in the assassination of President Anwar Al-Sadat. Farag himself was not an original thinker; indeed, more famous scholars offer a deeper understanding of the philosophical wellsprings of Islamic fundamentalism. Farag

is important because he wrote a manifesto of action for the Islamic fundamentalists.

Second, we need to address Bin Laden's own ideas, by tracing his evolution from the unremarkable scion of a wealthy family into an Islamist in 1979 and then proceeding to a careful textual analysis of some interviews over the last several years. It will be necessary to keep in mind, however, that Bin Laden is a man more of action than of words.

Third, what does it all mean? What is Bin Laden trying to achieve in the larger scheme of things? Does his war against the United States, and by extension the rest of the West, portend a "clash of civilizations" between the West and the Islamic world?[10] He may see it in such terms, but does this mean that the West should? If in fact the West succumbs to the siren song of those who would welcome such a clash, the implications will be far-reaching and ominous.

POLITICAL, SOCIAL, AND CULTURAL CONTEXT

The context from which Usama Bin Laden emerged was that of the Arab world. Bin Laden, after all, is an Arab from Saudi Arabia, even though he later based himself in non-Arab Afghanistan. In this context, it is instructive to begin with the collapse of the Ottoman Empire in 1918 following its defeat in World War I. The Arabic-speaking peoples who had been a part of this Turkish-ruled multiethnic empire sought to found an independent Arab state, or states. In a remarkable study, the noted Arab-American scholar Fouad Ajami borrowed from T. E. Lawrence the phrase "dream palace" to describe the intellectual edifice of secular nationalism and modernity that the Arabs constructed and thought would constitute the theoretical underpinnings of their entry into the modern world.[11]

The "Catastrophe"

The imposition following World War I of European colonialism, particularly in its British and French variants, did not dim Arab optimism concerning the future. Indeed, the adherence of many Arab thinkers to imported European notions of secular nationalism and modernity led them to object to colonialism specifically because of the resulting underdevelopment and the lack of legitimacy of puppet regimes. Some Arab thinkers and politicians in the interwar years turned their backs on secular, liberal nationalism, because of its association with Britain and France, and espoused radical nationalist tendencies and far-right ideologies that looked on Nazi Germany and Fascist Italy with sympathy. Ultimately, though, Arabs saw their salvation in ideas brought from the West. Very few subscribed to the view that a return to the precepts of Islam constituted a solution to the subjugation of the Arab world to colonialism and to its lack of development.

Even in the 1950s and 1960s, when independence came and the elites of the colonial regimes were overthrown by supposedly forward-looking modernizers, many Arab thinkers and some rulers continued to believe that the modernization of their societies lay in the implementation of a nationalist and socialist agenda. Modern societies, dynamic economies, and powerful armies were the visible outcomes desired by the post–World War II "enlightened" dictators who emerged in many Arab countries. They did not achieve those outcomes. The humiliating Arab defeat at the hands of Israel in 1967 became, in the view of Fouad Ajami, the Waterloo of Arab secular nationalism. This defeat was known in Arabic as *al nakba,* the catastrophe, a term denoting something deeper than a mere battlefield reverse. Indeed, the defeat was a sad commentary on the entire Arab world, but particularly on the modernizing regimes, which had been shown to be corrupt, tin-pot dictatorships. Their economies were a mess; they had not created a new "socialist man," with progressive ideas; certainly, they had not built powerful armies.

What, then, is Bin Laden's philosophy, with its origins, message, and goals—in other words, his worldview?

Not surprisingly, no sooner had the Arab militaries been defeated than a whole generation of intellectuals and politicians sought to analyze the causes. The secularists argued that the Arab states had been defeated by a modern and advanced power, that the Arabs had lost because they had failed to modernize effectively and thoroughly. Their solution was to deepen the quest for modernity. Others were more conservative, arguing that the solution was a blending of Arab and Islamic culture with the best that the Western world had to offer in the way of technology.[12]

The Rise of Islamic Fundamentalism

However, it was the views of a group of thinkers who came to be known as "Islamic fundamentalists" that became most prominent. Islamic fundamentalism is not a new phenomenon, but it has gained strength whenever great stress has been placed on Arab or other Muslim societies.[13] The 1967 defeat constituted such a period in Arab history. Some Islamic fundamentalists argued that Israel had won the 1967 war because its people had remained true to their faith, whereas the Arab world had lost because its rulers and people had turned away from their own faith, Islam. Others took the point farther, arguing forcefully that the Arab world needed to turn its back on imported and alien ideologies and return to Islam. They dismissed Western approaches, such as the idea and practice of the secular nation-state, as *hulul mustawrada,* "imported solutions."[14] The continued failures of all Arab regimes following the defeat of 1967 provided

more ammunition to the Islamic fundamentalists.[15] Indeed, *The Economist* put it concisely and accurately not long after the 11 September 2001 attack:

> The past three decades have provided fertile ground for these ideas [Islamic fundamentalism]. Nearly every Muslim country has experienced the kind of social stress that generates severe doubt, discontent and despair. Populations have exploded. Cities, once the abode of the privileged, have been overrun by impoverished, discontented provincials. The authoritarian nature of many postcolonial governments, the frequent failure of their great plans, and their continued dependence on western money, arms and science have discredited their brand of secularism. The intrusion of increasingly liberal western ways, brought by radio, films, television, the Internet and tourism, has engendered schism by seducing some and alienating others.[16]

To sum up, the nation-states of the Arab world, and of the Islamic world in general, have failed to meet the triple challenge of modernity, economic development, and political legitimacy. Islamic fundamentalists point to this failure as grounds for opposition to imported solutions and for acceptance of their own concept—the *nizam Islami,* the Islamic order. Before discussing what some Islamists mean by "Islamic order" and their various strategies for bringing it about, a few words about Islam itself are necessary.

The Islamic Divine Order. Unlike Christianity, Islam is both a religion and a sociopolitical system. There is no separation between church and state, between God and Caesar. The Prophet Muhammad was both a religious figure, who received the Koran as a revelation from God, and a political ruler, who conducted affairs of state, engaged in diplomatic interactions with his neighbors, and fought wars against his enemies. There was in Islam no Reformation like that which Christianity underwent in the sixteenth century; in fact, the very notion is theoretically alien to the Islamic community, or *Umma*—"theoretically," because for most of the history of Islam, Muslims have not really lived under an Islamic order. The Ottoman Empire, which ruled the vast majority of Arabs and Muslim peoples for close to five hundred years, could be conceived of as an Islamic order only by stretching the notion; the sultans in Istanbul were often corrupt and dissolute men who came to power by illegitimate means and were ultimately incapable of protecting the Islamic community from the depredations of foreign powers.

Modern rulers in the Arab and Muslim worlds have fared no better; their litany of failures and defeats has been long and sorrowful. The Islamic fundamentalists' own vision of rule calls for the implementation of *hakimiyat Allah,* God's rule, under which the divine law, the *Sharia,* would hold sway. An Islamic divine order is one that is characterized by the sovereignty of God alone. The head of such an Islamic state exercises power legitimately only insofar as he carries out

the will of God—that is to say, the injunctions of the *Sharia.* This Islamic divine order stands in stark contrast to constructs created by Western man and imported into the Islamic societies. Man-made political orders, such as secular-liberal or Marxist polities, assert that sovereignty belongs to man. This, in the Islamic divine order, is blasphemy—God alone is sovereign. Muslims who live under man-made political orders exist in a modern *jahiliyyah,* originally a Koranic term describing the state of ignorance and barbarism that prevailed in Arabia before the revelations to the Prophet Muhammad.[17] In the modern context, *jahiliyyah* refers to societies that are antithetical to Islamic order.

The Arab defeat at the hands of Israel in 1967 was known in Arabic as al nakba, *the catastrophe; it was a sad commentary on the Arab modernizing regimes.*

If Islamic order is the solution, how is it brought about? As Lenin asked, *chto delat'?* What is to be done?[18] Taken to their logical conclusion, the political views of many Islamic fundamentalists inevitably imply violent confrontation with the state. But the reality of power relationships, to paraphrase Samuel Johnson, concentrates the mind wonderfully. Fighting the Arab state poses major problems. Notwithstanding its decay and corruption, the Arab nation-state has a formidable apparatus, in the shape of large security services and paramilitary forces. In fact, one could argue convincingly that one of the few successes of the modern Arab state—its ability to survive in spite of its multitude of problems—has been due simply to its efficient, multilayered, and well funded security apparatus. Nonetheless, in the early 1990s Islamic fundamentalists launched bloody armed struggles against the secular states of Algeria and Egypt.[19] Neither has yet collapsed. They have been weakened and their legitimacy further battered, but the Arab state, as represented by those two countries as well as by Syria and Iraq—both of which have faced their own Islamic radicals—has been as ruthless as its opponents.

Not surprisingly, given this disparity in power, some Islamic fundamentalists have focused their attention on the individual within society, or on the society itself; this approach, a form of Basil Liddell Hart's strategy of the "indirect approach," avoids head-on confrontation with the state and seeks to re-Islamize individuals in their daily lives, in the hope that they will break radically with the manners and customs of "impious" society. Others have adopted a broader and more peaceful approach that seeks to re-Islamize society as a whole by propagating Islamic cultural values throughout such institutions as the media, the judiciary, entertainment, etc. The commanding heights of the state, so to speak, are left alone, because any assault on the political leadership, public institutions, or armed forces elicits a vigorous and vicious response. Of course, both indirect strategies

ultimately undermine secular foundations of the nation-state; neither is easy to combat, as the secular Turkish state has discovered over the last decade.[20]

The Neglected Duty. Some extremist Islamic fundamentalists continue to preach the necessity and virtue of direct action, of armed struggle. To legitimize and promote such a proactive approach in the face of the pitfalls and dangers, one needs a justification. That justification has appeared in a little-known manifesto, *Al-Faridah Al-Gha'ibah* (the neglected duty), by Muhammad Abdel Salam Al-Farag. The work of this Egyptian Islamic radical, who was a member of Al-Jihad, is critical to understanding Usama Bin Laden's conception of world order and his choice of direct confrontation.[21]

Farag begins his manifesto by asking, "Do we live in an Islamic state?" A Muslim lives in an Islamic polity if its rulers follow the Islamic law. If not, Muslims are said to be in the *dar al Kufr,* abode of infidels. Rebellion against such a system is permissible. Farag quotes the Prophet Muhammad: "If you have proof of infidelity [you] must fight it."[22] He dismisses all the possible peaceful ways that have been put forward for the establishment of an Islamic polity.[23] The only way, says Farag, is *jihad,* which is imperative against oppressive and iniquitous rulers.

The meaning of *jihad* has been a cause of considerable controversy among Western scholars of Islam and its popular interpreters. It has erroneously been taken to mean "holy war."[24] The phrase meaning "holy war" is *harb mukaddasah;*[25] *jihad* conveys striving or exertion (that is, fighting) in the way of God—against the evil in oneself, against Satan, against apostates *(murtadd)* within one's society, or against infidels. For Farag, the most important *jihad* is the third one. It is so important that *jihad,* says Farag, should be the sixth pillar of the Islamic faith (see the table). This is a striking innovation, since Islam's five pillars of faith—individual and social obligations—were prescribed by the Prophet Muhammad in a *hadith,* or saying.

Farag argues that the Islamists must focus first on the enemy at home: "We must begin . . . by establishing the rule of God in our nation. . . . [T]he first battlefield for *jihad* is the uprooting of these infidel leaders and replacing them with an Islamic system from which we can build."[26] Only afterward can the enemy "who is afar" (in Farag's words) be combatted. Usama Bin Laden seems to have reversed the order somewhat, in that he has concentrated primarily on the enemy who is technically afar, the United States, rather than on the impious rulers of Islamic states. But the situation by the 1990s was far different from when Farag was executed in 1982. In the 1990s the United States established a visible and looming

PILLARS OF ISLAM

Shahada	profession of faith
Salat	prayers
Qakat	almsgiving or charity
Sawm	fasting
Hajj	pilgrimage

presence in the Arabian Peninsula—the "land of the two holy mosques," in Bin Laden's language. In this context, Bin Laden, who focuses his ire on the United States as the support of its "puppets," the Al-Sauds, sees the enemy at home and the enemy who is afar as intricately linked in a symbiotic relationship.

Finally, *jihad,* says Farag, allows all kinds of operational tactics. Deceiving and lying to the enemy is permissible, as it allows "victory with the fewest losses and by the easiest means possible."[27] Similarly, infiltrating the infidels' ranks and appearing to be one of them is also permissible.[28] Farag also mentions the importance of detailed planning before the battle is joined.

Farag's exposition of *jihad* influenced many within the present circles of Islamic revolutionary action; one of these was Usama Bin Laden. Bin Laden may have read Farag on his own; it is more likely that Farag's ideas were passed on to him by his second in charge, the fugitive Egyptian surgeon Dr. Ayman al-Zawahiri.[29]

THE EVOLUTION OF A TERRORIST

Usama Bin Muhammad Bin Laden was born in the Saudi capital, Riyadh, in 1957. He was the seventeenth of fifty-two children, and the seventh son sired by Sheikh Muhammad Bin Laden, who had come to Saudi Arabia in 1930 from the Hadramaut region of Yemen.[30] Muhammad Bin Laden came into Saudi Arabia a destitute man; he would die in 1968 (in an airplane crash) a billionaire. Over the decades he established his family as the wealthiest in the construction industry in Saudi Arabia, with strong financial ties and bonds of friendship to the royal family. Nothing in his son's early years indicated that Usama, born into wealth and privilege, was destined to achieve notoriety on the world stage.

The Transformation of 1979

Bin Laden's father was dominating and domineering, and he imposed discipline and a strict social and religious code on all his children. Some accounts say Bin Laden was quite religious, living in a city, Jeddah, that was exposed to the thought of many Islamic scholars. Others argue that Bin Laden was not at all religious and had imbibed liberal ideas from his Syrian mother, a progressive woman who was his father's fourth wife. Bin Laden attended King Abdul Aziz University in Jeddah and in 1979 earned a degree—in economics and management, by some accounts, or in civil engineering, by others. It is difficult to get a clear-cut picture of Bin Laden's early years. Unlike many other committed fundamentalists, Bin Laden never lived or studied in the West. However, he is an educated man, like many others who succumbed to radical politics through distaste for, and frustration with, the conditions prevailing in their societies.

We should judge the year 1979 as transformative in Bin Laden's life. In that year three major events shook the Middle East. On 26 March, Egypt and Israel made peace, a peace that was denounced by Arabs and Muslims the world over as a sellout. Two months earlier, an Iranian revolution led by an ascetic cleric, the Ayatollah Ruhollah Khomeini, toppled the shah, Muhammad Reza Pahlavi, the most powerful ruler in the Middle East and the most important pillar of U.S. security and economic interests in the Persian Gulf. Finally, in December, the Soviets invaded Afghanistan, a Muslim country with an unstable Marxist puppet government aligned with the Soviet Union. We do not know whether the first two events, momentous as they were, had much impact on Bin Laden; the last event definitely did. In one of his earliest interviews Bin Laden recalled, "When the invasion of Afghanistan started, I was enraged and went there at once. I arrived within days, before the end of 1979."[31]

Are we witnessing the clash of civilizations, or is the struggle against Bin Laden primarily a military and law-enforcement campaign? Both are losing strategies.

Bin Laden may have been exaggerating the alacrity with which he traveled to Afghanistan, but the Soviet invasion was certainly important for him, in two major ways. First, it was an act by an external enemy, an infidel and godless enemy, against an Islamic country. This led Bin Laden to focus his wrath on the enemy outside of Islam rather than on the internal oppressive ruler. Second, the *jihad* in Afghanistan brought Bin Laden face to face with the military and technological strength of a superpower. He was impressed in some ways, yet disdainful in others. He and the contingent of Muslim volunteers from Arab countries—on which more below—fought the Soviets to a standstill in a couple of battles.[32] Bin Laden thought that the Soviets were admirably ruthless but also paper tigers: "The myth of the super power was destroyed not only in my mind but also in the minds of all Muslims. Slumber and fatigue vanished."[33]

Bin Laden's Political Philosophy and Strategy of Direct Action

The evolution of Bin Laden's political philosophy will be examined from the early 1990s to the present, through a textual analysis of his interviews, his *fatwas* (rulings), and his "epistles," or edicts. All of these point to his tactics and conceptions of world order, from the struggle in Afghanistan to his current struggle against the United States.

The Afghanistan War and Exile. Upon his arrival in Afghanistan, Bin Laden began to develop his conception of who the outside enemy was, a view that he articulated to a French journalist in 1995—it was the communists and the West. "I did not fight against the communist threat while forgetting the peril from the

West. . . . I discovered that it was not enough to fight in Afghanistan, but that we had to fight on all fronts against communist or Western oppression. The urgent thing was communism but the next target was America. . . . This is an open war up to the end, until victory."[34]

In Bin Laden's eyes, he and the Afghan guerrillas were aligned at the time with the Americans solely because they were fighting a common enemy. It is not clear what relationship he had, if any, with the Central Intelligence Agency, which was pouring money and arms into Afghanistan. Whatever the case, Bin Laden regarded America as an enemy; if he did accept funds and weapons, it simply indicated his willingness to collaborate operationally with one ideological enemy in order to go after another. (In this connection, it would be useful to know whether he has since accepted support from regional states with which he and his network have little ideological affinity.)

Fundamentalists point to the failure of Arab nation-states as grounds for opposition to imported solutions and for acceptance of their own concept—the Islamic order.

Second, the war in Afghanistan showed Bin Laden's modus operandi, political and organizational skills, flexibility, and opportunism. Contrary to popular belief, he did not rush into Afghanistan, AK-47 in hand, to battle the Soviets personally. The *jihad* was not only a matter of fighting, dying, and killing in the name of God. It required extensive preparation, a logistical infrastructure, political support for the Afghan fighters, funds, and the recruitment of Muslim volunteers from other parts of the Islamic world. Bin Laden did not participate in major battles at this stage. Between 1979 and 1982, in fact, he was in Afghanistan for only short periods. He made several trips out to collect money and matériel for the guerrillas. In late 1982 he took back construction and earth-moving machinery; an Iraqi engineer friend used it to dig massive tunnels and caves into the mountains in Bakhhar Province for hospitals and weapons depots.

In 1984 he formalized his role in the Afghan conflict, establishing a guesthouse in Peshawar for Muslim volunteers on their way to the war, and cofounding (with the well-known Palestinian Islamist 'Abdullah Azzam) the Maktab al Khidamat, or *Jihad* Service Bureau. The bureau was a propaganda and charity organization whose publications ultimately attracted thousands of Arabs and other Muslims to fight in the war.

By 1984 these volunteers were arriving in significant numbers. At the height of the conflict the "Afghan Arabs" included fifteen thousand from Saudi Arabia, five thousand from Yemen, three to five thousand from Egypt, two thousand from Algeria, a thousand from the Arab states of the Gulf, a thousand more from Libya, and several hundred from Iraq. Apparently Bin Laden played a crucial role in facilitating the entry into Afghanistan of these willing recruits.[35] He

commanded some of the Afghan Arabs, and in 1986 he decided to enter the battle actively against the Soviet forces. Among the fighters under his command were former senior military officers from Egypt and Syria, with combat experience and with training in the Soviet Union.[36]

Bin Laden continued to pay attention to preparations and infrastructure. He cultivated people in high places to fill the coffers for the war effort against the Soviets. One of Bin Laden's most productive years was 1988, when he realized that he needed better documentation of the activities of the Afghan Arabs. A formalized structure was essential to keep track of the comings and goings of the foreign fighters and to list their wounded and dead. For this he set up Al-Qaeda, meaning simply "the base."[37] In due course Al-Qaeda developed into a large clearinghouse for a host of loosely aligned radical Islamic organizations.[38]

Bin Laden's ideas and visions are unfamiliar to most Americans, who find the idea of a holy war in this day and age bizarre.

Thus, in a nutshell, if Bin Laden entered Afghanistan as a dilettante, he left as a committed believer. Apart from articulation of his views of the enemy and his recognition that the enemy was not invulnerable, he set down little in the way of political philosophy or worldview. In 1989 the Soviets acknowledged defeat and withdrew from Afghanistan. It was clear to most people by then that the Soviet Union was a superpower in terminal decline. Bin Laden believed that the Afghan Arabs had contributed in no small measure to its collapse.

Interestingly, when Bin Laden returned to Saudi Arabia in 1989 he began to focus his attention on an enemy that was close at hand—not the Saudi regime but Saddam Hussein of Iraq. In 1989 Bin Laden began to warn of impending Iraqi aggression against the kingdom. He saw Saddam Hussein as a greedy and aggressive secular Arab nationalist, an anti-Islamic ruler who could threaten two holy places, Mecca and Medina. In August of 1990—perhaps another milestone year for Bin Laden—Iraq invaded Kuwait. In Bin Laden's eyes, one of the key duties of an Islamic ruler is to defend his territory from aggression. He suggested that Saudi Arabia augment its defenses, on which the rulers had spent so lavishly, with thousands of former Afghan Arabs.

To the consternation of Bin Laden, the royal family decided instead to invite the Americans, infidels, to defend the holy places. In 1998, in his declaration of the "World Islamic Front for Jihad against the Jews and Crusaders" (discussed below), there was clear evidence of Bin Laden's dismay, expressed in masterful Arabic imagery:

> Since God laid down the Arabian peninsula, created its desert, and surrounded it with its seas, no calamity has ever befallen it like these Crusader hosts that have

> spread in it like locusts, crowding its soil, eating its fruits, and destroying its verdure; and this at a time when the nations contend against the Muslims like diners jostling around a bowl of food.[39]

What he saw as an American invasion led Bin Laden in 1995 to articulate his first major critique of the Saudi regime, in an "Open Letter to King Fahd." In it Bin Laden took the royal family to task for lack of commitment to Islam, squandering of public funds and oil money, inability to implement a viable defense policy, and dependence on non-Muslims for protection. This came very close to denying the political legitimacy of the Al-Sauds. In his communiqué Bin Laden advocated a campaign of small-scale attacks on U.S. forces in the kingdom. The royal family stripped him of his nationality and sent him into exile, first to Sudan and ultimately back to Afghanistan. Not long after his falling-out with the Saudi royal family, attacks were conducted against U.S. facilities in Dhahran (1995) and at Khobar (1996). Bin Laden did not claim "credit" for these attacks but, in what was to become a trademark following attacks in which he was implicated, applauded the perpetrators: "What happened . . . when 24 Americans were killed in two bombings is clear evidence of the huge anger of Saudi people against America. The Saudis now know their real enemy is America."[40]

"Declaration of War against the Americans." The philosophical underpinnings of Bin Laden's opposition to America are to be found in two key epistles. The first is the "Declaration of War against the Americans Occupying the Land of the Two Holy Places," issued on 23 August 1996.[41] We must understand the regional and global context in which what is being called the "Ladenese Epistle" first circulated. Muslims, says Bin Laden, from Palestine to Iraq, from Chechnya to Bosnia, have been slaughtered in large numbers, their lands expropriated, and their wealth looted, by non-Muslims:

> The people of Islam [have] suffered from aggression, iniquity, and injustice imposed on them by the Zionist-Crusaders alliance and their collaborators, to the extent that the Muslims' blood became the cheapest and their wealth was loot in the hands of enemies. Their blood was spilled in Palestine and Iraq. The horrifying pictures of the massacre of Qana, in Lebanon, are still fresh in our memory. Massacres in [Tajikistan, Burma, Kashmir, Assam, the Philippines, Somalia, Chechnya, and Bosnia-Herzegovina] took place, massacres that send shivers in the body and shake the conscience.[42]

What, one may ask, has all this to do with America? These events were unfortunate, but America cannot be blamed for them. Not so, Bin Laden—and many others in the region, even some who do not share his vision—would respond. America, they would say, provided some of the arms used in massacres of Muslims; for example, the killing of hundreds of Lebanese civilians in Qana in 1996

in the wake of the Israeli Operation GRAPES OF WRATH involved American weapons. In the Yugoslav civil war, America stood passively by, mouthing platitudes about human rights, as Muslim civilians were massacred. America does nothing while Russians slaughter Chechens yearning to be free of Moscow's yoke. Further, they would reply, America says nothing about the depredations of the Arab and Muslim rulers against their own peoples.

However, the focus of Bin Laden's anger in the 1996 epistle was the continued American "occupation" of the land of the holy places, a presence that the corrupt Al-Sauds had permitted at a time when their country suffered from economic distress and demoralization. Several attempts by well-meaning citizens to draw the attention of the Al-Sauds to the terrible state of the country had been to no avail. Why?

> Everyone [has] agreed that the situation cannot be rectified . . . unless the root of the problem is tackled. Hence it is essential to hit the main enemy who divided the *Umma* into small and little countries and pushed it, for the last few decades, into a state of confusion. The Zionist-Crusader alliance moves quickly to contain and abort any "corrective movement" appearing in the Islamic countries.[43]

In this regard, one of the most important duties of Muslims is "pushing the Americans out of the holy land." To lend weight to his argument Bin Laden quotes a noted Islamic jurist of medieval times, Ibn Taymiyyah, who argued that when Muslims face a serious threat, they must ignore minor differences and collaborate to get the enemy out of the *dar al-Islam* (abode of Islam). As Bin Laden put it, "If there [is] more than one duty to be carried out, then the most important one should receive priority. Clearly after Belief *(Imaan)* there is no more important duty than pushing the American enemy out of the holy land. . . . The ill effect of ignoring these [minor] differences, at a given period of time, is much less than the ill effect of the occupation of the Muslims' land by the great *Kufr* [unbelief]."[44] If the Muslims fight one another instead of the great *Kufr,* they will incur casualties, exhaust their own economic and financial resources, destroy their infrastructures and oil industries, and expose themselves to even greater control by the Zionist-Crusader alliance.

Also in this epistle Bin Laden articulates his disdain for the United States. After the attacks on American installations in Saudi Arabia, William Perry, the secretary of defense at the time, declared (Bin Laden says) that the explosions had "taught him one lesson: that is, not to withdraw when attacked by coward terrorists." Bin Laden's response in his 1996 epistle is an interesting look into his mind-set:

> We say to the Defense Secretary that his talk can induce a grieving mother to laughter! . . . Where was this false courage of yours when the explosion in Beirut took

> place in 1983? . . . You [were] turned into scattered pits and pieces at that time; 241 mainly marine soldiers were killed. And where was this courage of yours when two explosions made you leave Aden in less than twenty-four hours! But your most disgraceful case was in Somalia; where—after vigorous propaganda about the power of the USA and its post–Cold War leadership of the new world order—you moved tens of thousands of an international force, including twenty-eight thousand American soldiers, into Somalia. However, when tens of your soldiers were killed in minor battles and one American pilot was dragged in the streets of Mogadishu you left the area carrying disappointment, humiliation, defeat and your dead with you. . . . You have been disgraced by Allah and you withdrew. The extent of your impotence and weaknesses became very clear.[45]

Bin Laden, then, views the United States as a paper tiger, like the Soviet Union—which, however, he considers a more worthy opponent, because it fought hard and ruthlessly in Afghanistan. However, Bin Laden may be making a mistake here. Americans are often blinded by what the British strategic analyst Ken Booth once called "strategic ethnocentrism," inability to perceive other cultures or societies in an empathetic manner, or to understand them. Bin Laden may suffer from the same disease vis-à-vis the United States. He may have underestimated the nation's resilience and ingenuity; he may believe that after the Somalia experience it would always respond in a lumbering, technological manner and do no more than launch a few cruise missiles. These assumptions may be among the first cracks that can be exploited in the edifice of his conception of the world.

Nonetheless, Bin Laden does not underestimate the difficulty of fighting the United States. Islamic fundamentalists elsewhere—such as Sheikh Hussain Fadlallah of the Lebanese organization Hizballah—have had to deal with an imbalance of power between their groups and their enemy, Israel. For his part, Bin Laden is quite aware of the technological superiority of the United States:

> Nevertheless, it must be obvious to you that, due to the imbalance of power between our armed forces and the enemy forces, a suitable means of fighting must be adopted—that is, using fast-moving light forces that work under complete secrecy. In other words to initiate a guerrilla war, where the sons of the nation, and not the military forces, take part in it. And as you know, it is wise, in the present circumstances, for the armed military forces not to be engaged in a conventional fight with the forces of the crusader enemy.[46]

Nowhere in the 1996 epistle did Bin Laden refer to the type of operation that was to occur on 11 September 2001 (though, of course, that does not preclude its possibility). He focused on the creation of the kinds of assets needed to attack forward-positioned U.S. forces, such as those in Saudi Arabia. How does one redress an imbalance of power? Bin Laden mentions a number of ideas in his

"Declaration of War," such as boycotting American goods. More interesting is his belief, expressed elsewhere in 1998, that it would be permissible for him to acquire weapons of mass destruction: "Acquiring weapons for the defense of Muslims is a religious duty. If I have indeed acquired these weapons, then I thank God for enabling me to do so. And if I seek to acquire these weapons, I am carrying out a duty. It would be a sin for Muslims not to try to possess the weapons that would prevent the infidels from inflicting harm on Muslims."[47]

Bin Laden thought that the Soviets were admirably ruthless but also paper tigers.

It seems also that the strategy of using "fast-moving light forces" includes the salutary application of terror.[48] In another part of the epistle Bin Laden says that terrorism against American forces is legitimate: "Terrorizing you, *while you are carrying arms on our land,* is a legitimate and morally demanded duty. . . . [Y]our example and our example is like a snake which entered into a house of a man and got killed by him. The coward is the one who lets you walk, while carrying arms, freely on his land and provides you with peace and security."[49]

The italicized passage is important, as it highlights an essential difference between Bin Laden's conception of terrorism and that of Americans: he considers the killing of unarmed U.S. personnel in their offices or barracks legitimate; the American view is that the indiscriminate killing of unarmed personnel is clear-cut terrorism and illegitimate.

The 1996 epistle ended on this intriguing note. However, later that year, in the October–November 1996 issue of an Islamic magazine, *Nida' ul Islam,* Bin Laden dismissed the notion that his declaration of war against the United States presence in the holy land was terrorism. Instead, he argued, it was what America and its ally Israel were doing to the Muslim peoples that constituted terrorism:

> The evidence overwhelmingly shows America and Israel killing the weaker men, women and children in the Muslim world and elsewhere. A few examples of this are seen in the recent Qana massacre in Lebanon, and the death of more than 600,000 Iraqi children because of the shortage of food and medicine which resulted from the boycotts and sanctions against the Muslim Iraqi people. . . . Not to forget the dropping of the atom bombs on cities with their entire populations of children, elderly and women, on purpose and in a premeditated manner, as was the case with Hiroshima and Nagasaki.[50]

In his "Declaration of War against the United States" Bin Laden did not target American civilians, only U.S. military personnel stationed in Saudi Arabia. However, that was to change dramatically.

"Declaration of the World Islamic Front." On 22 February 1998, an edict over Bin Laden's signature was published in the Arabic-language paper *Al-Quds al-Arabi;* it was entitled the "Declaration of the World Islamic Front for Jihad against the Jews and the Crusaders." It was a more significant document than the "Ladenese Epistle." It articulated more fully why Bin Laden views the United States as an enemy and how he proposed to deal with that enemy.[51]

In the 1998 epistle he offered three major reasons why America is to be considered an enemy of the Islamic peoples:

> First—For more than seven years the United States [has been] occupying the lands of Islam in the holiest of its territories, Arabia, plundering its riches, overwhelming its rulers, humiliating its people, threatening its neighbors, and using its bases in the peninsula as a spearhead to fight against the neighboring Islamic peoples. . . .
>
> Second—Despite the immense destruction inflicted on the Iraqi people at the hands of the Crusader-Jewish alliance and in spite of the appalling number of dead, exceeding a million, the Americans nevertheless, in spite of all this, are trying once more to repeat this dreadful slaughter. . . . They come again today to destroy what remains of this people and to humiliate their Muslim neighbors.
>
> Third—While the purposes of the Americans in these wars are religious and economic, they also serve the petty state of the Jews, to direct attention from their occupation of Jerusalem and the killing of Muslims in it.
>
> There is no better proof of all this than their eagerness to destroy Iraq, the strongest of the neighboring Arab states, and their attempt to dismember all the states of the region, such as Iraq and Saudi Arabia and Egypt and Sudan, into petty states, whose division and weakness would ensure the survival of Israel and the continuation of the calamitous Crusader occupation of the lands of Arabia.[52]

These three crimes constituted "a clear declaration of war by the Americans against God, his Prophet, and the Muslims." When the Muslim world goes on the offensive, war is conducted by professional soldiers and even volunteers; however, when it is under attack, the defense of the community becomes the duty of every individual Muslim. The Islamic *umma,* the declaration held, was now fighting a defensive war against the aggression of the Zionist-Crusader alliance; therefore, as the *ulema* (the authorities on theology and Islamic law) had uniformly ruled for many centuries, *jihad* was the duty of every Muslim. This is an interesting and subtle distinction; because of it, Bin Laden can claim that he is not responsible when outraged individual Muslims vent their anger on the United States but that he can understand their actions and justify them.

The declaration's most important part is a *fatwa,* or ruling:

> To kill Americans and their allies, both civil and military, is an individual duty of every Muslim who is able, in any country where this is possible, until the Aqsa Mosque

> [in Jerusalem] and the Haram Mosque [in Mecca] are freed from their grip and until their armies, shattered and broken-winged, depart from all the lands of Islam, incapable of threatening any Muslim.[53]

This document is remarkable not because it constitutes a declaration of war against America or because it makes no distinction between innocent civilians and military personnel but because it transcends the bounds of fundamentalist rhetoric and discourse. It reaches out to those in the Arab and Islamic worlds who do not share the agenda or language of the Islamic fundamentalists.

The 28 September 2001 Interview and 8 October Speech. Indeed, even secular Arabs and most nonfundamentalist Muslims view with mounting outrage and despair what America has done to Iraq and its policies with respect to the Israeli-Palestinian conflict. This is crucial for understanding why many people in the Arab and Islamic worlds viewed the destruction of the World Trade Center and the damage to the Pentagon with barely concealed glee, studied indifference, or awe.

In an interview on 28 September 2001, Bin Laden expressed his reactions to the terror attacks and the fact that he was viewed as the chief culprit: "I have already said that I am not involved in the 11 September attacks, nor do I consider the killing of innocent women, children, and other humans as an appreciable act. Islam strictly forbids causing harm to innocent women, children, and other people."[54]

This is very interesting. Bin Laden here seemed to have retreated from his earlier claim that war against all Americans is permissible and that there is no distinction between innocents and legitimate military targets. However, his retreat back into the mainstream of Islamic thought on just war—which calls for such a distinction between innocent noncombatants and combatants—must be considered a tactical ploy. Ultimately it clashes with his view, derived from Farag, that *jihad* is more important than anything except belief in God. If that is so, "collateral damage" sustained by innocents and noncombatants can hardly be allowed to stand in the way. If *jihad* is a central pillar of Bin Laden's thought, his retreat on the issue of the killing of noncombatants was a pragmatic step designed to suit the realities of the situation at the time—that is, the need to avoid American retaliation.

But American retaliation did come. On 8 October, U.S. forces launched a concerted air assault on what passes for infrastructure in Afghanistan. Following the start of the American offensive against him, Bin Laden launched a verbal onslaught against the United States and its allies in the Muslim world, whom Bin Laden castigated as "hypocrites," in an appearance that day on the controversial but popular Arab satellite television station Al-Jazeera. His comments were significant

in other ways as well. Bin Laden spoke apocalyptically of the possibility of a war between Muslim and non-Muslim, of the suffering of the Iraqi people under sanctions and of the Palestinians in their conflict with Israel. Contrary to the observations of some that Bin Laden has not been concerned with what happens in the Fertile Crescent, this was not the first time he had spoken about these issues; however, it was the first time that they had attained such prominence in his strategy.

This indicates a decision to widen his base of support beyond those ideologically sympathetic to him. Indeed, Bin Laden's speech of 8 October resonated with a number of people in the region, many of whom expressed satisfaction with that part of his message, if not with his methods or his apocalyptic vision of a clash between Muslims and non-Muslims.[55] Certainly, Bin Laden's decision to appear on TV after the American attack indicates a sophisticated understanding of the power of the media.[56]

WHERE IT IS, WHAT IT IS, AND WHAT IT DOES

What does this all mean? Are we witnessing the start of the clash of civilizations, as predicted by Samuel Huntington, or is the struggle against Bin Laden primarily a military and law-enforcement campaign writ large—one that will eventually address other terrorist entities and state sponsors by the same means? Both are losing strategies, and the United States cannot afford either of them.

The Western and Islamic worlds have many common attributes, but their mutual history has been one of conflict and discord since medieval times. The facts that they had more in common with each other than either had with, say, the Sinic or Hindu civilizations and that they were adjacent to one another contributed enormously to the centuries of struggle. The evolution of Western thought and ideas, and the emergence of Western military superiority from the sixteenth century onward, opened a new chasm between the two worlds. Islamic fundamentalists perceive two competing world orders, one man-made and materialistic, the other divine and spiritual. Each has claims to universalism: the adherents of each believe that its conceptions are universal and exportable—which cannot be said about the Hindu, Buddhist, or Chinese civilizations.

It is not, however, in the interest of the West to view this as a clash of Western and Muslim civilizations, for a number of reasons. First, it would play into Bin Laden's hands. He *wants* the United States and its Western allies to continue assaulting Muslim lands and peoples. This, he believes, would draw to him Muslims now sitting on the sidelines, and it might lead to the collapse of secularist traditions and pro-Western tendencies within the Arab and Muslim worlds. It would also galvanize his adherents and supporters to greater heights of zeal.

Second, adoption of the idea of a clash of civilizations would have major implications for the domestic politics of Western societies. Europe has a large

Muslim population, which is struggling within itself over identity, whether it should exist as a quasi-separate community within a secular European society or integrate itself into that society and do away with some of its older traditions. Islam is the second-largest religion in France; there are four million Arabs and Muslims in that country. The United States has six million Muslims and three million Arabs.[57] A declared clash of civilizations would widen the gap between these communities and the societies in which they live, with potentially dire consequences for their political liberties and rights.

Third, the conception of world order promoted by Bin Laden and other Islamic fundamentalists suffers from a fatal flaw that no thinker has been able to overcome. Islamic fundamentalists have been very good at highlighting and analyzing the weakness, backwardness, and problems afflicting current Islamic societies. They have also been good at proposing their own solutions—but very bad at the details. They have no Islamic model to hold up as appropriate for this day and age.[58] The Islamic Republic of Iran cannot be a model, because it is a Shia state, whose trajectory has been very different from those of its Arab neighbors. Moreover, the Ayatollah Khomeini's central political idea, the rule of the religious jurisprudent, constituted an innovation even in Shia thought, and it has been under constant challenge since his death in 1989. Sudan is not a model either. It is a poor country, whose Islamic political system has not been able to withstand the tensions between the army, under President Omar al Bashir, and the Islamists, under the suave, Sorbonne-educated Hasan al-Turabi. Usama Bin Laden and his followers, and many other Islamic fundamentalists as well, can cause disorder and conflict with and among the West and its allies in the Islamic world; indeed, they can widen the chasm between the two sides. But it is not likely that they will be able to implement an alternative order that can constitute a successful challenge.

"Where was this false courage of yours when the explosion in Beirut took place in 1983? . . . And where was this courage of yours when two explosions made you leave Aden in less than twenty-four hours!"

On the other hand, a strategy that simply takes a military and law-and-order approach, as advocated by some members of the Bush administration, is neither feasible nor *realpolitik.* This is not a war that the United States can fight alone; it needs a coalition, and its present coalition is wobbly. It would be adding fuel to the fire to attack other terror networks—in Syria, Lebanon, Libya, and Iraq—particularly in the absence of direct evidence that other groups or states were involved in the attacks of 11 September. Not even the European members of the coalition who have been America's staunchest supporters would be willing to give the hawks within the Bush administration carte blanche. As for

the countries of the region, they will see an enlargement of this struggle against terrorism as an attack on Muslims and as an attempt by the United States, and its ally Israel, to settle scores with all their enemies.

Usama Bin Laden is a dangerous opponent, and so are those who might succeed him should he be killed over the course of the American onslaught. They have been able to attack America effectively. The United States is a global power with diplomatic, cultural, military, and economic interests worldwide. It is easy to attack America by acts of terror against those global interests; Bin Laden has done so in the past. But this time he brought the battle to the heart of the nation. He and his supporters have crossed a threshold.

They have attacked the United States because of *where it is*, *what it is*, and *what it does*. Of course, America is not attacked primarily for where it is—that is, nearly everywhere, and conspicuously in the Middle East; its global presence simply makes it easier to attack for the other two reasons. It is clear that America is detested by many people the world over for what it is—a successful and dynamic modern society. It has created envy among the dispossessed and revulsion among ideologically alienated groups who see it as totally antithetical to their own values or aspirations. There may be very little that can be done to assuage the anger of those who hate America for its very nature.

Some American analysts claim that terrorists hate America only for what it is.[59] This is undoubtedly true with respect to the terrorists themselves, but there is a large number of people in the Middle East whose primary, if not sole, issue with America is its allegedly unfair and "hypocritical" policies.[60] Ignoring the bubbling dissatisfaction with what the United States does, or allegedly does, would relieve Americans of some painful policy adjustments that may in fact be necessary. Many people in the Middle East see Bin Laden as sending the United States a multifaceted message, elements of which they can identify with. Indeed, Bin Laden has brilliantly established a nexus between those who hate the United States for what it is—the great seductress, spreading a culture and religion of material plenty around the globe—and those who despise it for what it does in the Middle East, as they see it—extending support to Israel, turning its back on the Palestinian quest for justice, continuing to punish Iraq for transgressions of a decade ago.[61]

While this article is not intended to make policy recommendations, it must conclude by supporting, however superficially in a brief space, an alternative approach—a long-range and sustained strategy with a "basket" of many options, some of which can be implemented in tandem, and others that would have to be implemented sequentially.

Instrumentally, the war against terror involves the use of intelligence assets and military, legal, and financial means all at the same time, in a broad-based, synergistic campaign. Despite recognition by the United States that terror constitutes one of its greatest security threats, the American war against terror has not been an effective or integrated one. Psychological warfare and humanitarian approaches are also required; to pursue them it is necessary to look carefully at socioeconomic and structural conditions that contribute to the rise of radical politics.

A number of failed states have become breeding grounds for terrorist organizations; Afghanistan and Somalia come to mind. Other states can be classified as potential hotbeds—Yemen, Sudan, Pakistan, and Algeria. Instead of focusing on potential state sponsors of terrorism, it might be efficacious to look as well at key states where conditions may ultimately promote the proliferation of terrorist infrastructures.[62] A well-structured international economic-aid policy to these countries could be formulated and implemented over a period of years. Such a policy should address even such micro-issues as the so-called Islamic schools *(madrassahs)* in Afghanistan and Pakistan, where very young children are indoctrinated into the belief that terrorism is just, that death in the service of their version of religion should be their highest aspiration.

Policywise, the United States may have to make some painful adjustments throughout the Mideast region. Although none should be implemented under pressure of terrorism, some truly far-reaching changes should be examined. For instance, must the United States permanently station ground forces on the Arabian Peninsula? If not, what does this mean for power projection and force structure? Even trickier, how might America help resolve the debilitating Arab-Israeli issue in a manner that both sides can view as fair, while making clear to the Arabs that it will not abandon Israel as an ally? What can and should be done about Iraq, which has become a point of contention for all Arabs, whether fundamentalists, secularists, members of the working class, or intellectuals? It is an issue that will not go away.

Last, but by no means least, the American tendency to ignore or brush over the questionable stability of Arab allies and the deep-seated political and socioeconomic problems besetting them works strongly against its own interests. How to persuade these countries that they must undertake reforms in order to survive, however, is a nettlesome problem. Plainly, the strategy suggested here to combat the Bin Laden phenomenon needs to be explored in greater analytical detail. In the final analysis, a comprehensive national—even international—strategy, sustained over a long period of time, is needed to win the war against terrorism. Any other way leads to the abyss.

NOTES

1. For more details on definitions and characteristics of terrorism see Paul R. Pillar, *Terrorism and U.S. Foreign Policy* (Washington, D.C.: Brookings Institution Press, 2001), pp. 12–29.
2. Ibid., pp. 13–4.
3. See Luke Cyphers and Richard Whitby, "The Slickest of Killers: Educated Hijackers Ran Complex Operation," *New York Daily News,* 16 September 2001, p. 10.
4. Raphael Israeli, "Islamikaze and Their Significance," *Terrorism and Political Violence,* Autumn 1997, pp. 96–121.
5. Raymond Tanter, *Rogue Regimes: Terrorism and Proliferation* (New York: St. Martin's Griffin, 1999), pp. 263–8.
6. Yossef Bodansky, *Bin-Laden: The Man Who Declared War on America* (Rocklin, Calif.: Forum, 1999).
7. Mary Anne Weaver, *A Portrait of Egypt: A Journey through the World of Militant Islam* (New York: Farrar, Straus and Giroux, 2000), esp. pp. 191–209.
8. See Michael Dobbs, "Inside the Mind of Osama Bin Laden," *Washington Post,* 20 September 2001, p. A1. Professor O'Neill, in a September 2001 presentation at National Defense University, played the role of Bin Laden. O'Neill's presentation is the subject of analysis by John Donnelly, "Defense Scholar Offers a Chilling Bin Laden Portrayal," *Boston Globe,* 7 October 2001, p. A28.
9. Rosalind Gwynne, "Al Qa'ida and al-Qur'an: The 'Tafsir' of Usamah Bin Laden," mimeograph in this author's possession. This study is heavy going and presupposes some familiarity with the Qur'an and the writings of key medieval Islamic scholars. Nonetheless, it is the most sophisticated analysis of the philosophical-religious foundations of Bin Laden's thought to date.
10. The noted Princeton scholar Bernard Lewis coined the phrase "clash of civilizations" to denote a conflict between the West and the Islamic East, but Harvard's Samuel Huntington gave it notoriety, primarily in his book *The Clash of Civilizations and the Remaking of World Order* (New York: Touchstone Books, 1997), esp. pp. 209–18.
11. Fouad Ajami, *The Dream Palace of the Arabs: A Generation's Odyssey* (New York: Vintage Books, 1999), p. xi.
12. For extensive details of these debates see Fouad Ajami, *The Arab Predicament: Arab Political Thought and Practice since 1967* (Cambridge, U.K.: Cambridge Univ. Press, 1981), pp. 25–75.
13. During the 1960s President Gamal Abdel Nasser of Egypt waged a long and vicious battle with the Muslim Brotherhood, one of the oldest and most established Islamic movements in the Middle East. Nasser executed a number of the organization's key figures.
14. See Bassam Tibi, *The Challenge of Fundamentalism: Political Islam and the New World Disorder* (Berkeley: Univ. of California Press, 1998), p. 7.
15. For more details see Hilal Khashan, "The New World Order and the Tempo of Militant Islam," *British Journal of Middle Eastern Studies,* Winter 1997.
16. "Enemies Within, Enemies Without," *The Economist,* 22 September 2001, pp. 20–1.
17. For more details see Gilles Kepel, *Muslim Extremism in Egypt: The Prophet and Pharaoh* (Berkeley: Univ. of California Press, 1993), pp. 12–4.
18. The same analogy also occurs in ibid., p. 12.
19. For an extensive comparative analysis of these two insurgencies, see Lawrence E. Cline, "Egyptian and Algerian Insurgencies: A Comparison," *Small Wars and Insurgencies,* Autumn 1998, pp. 114–33; and Nasser Momayezi, "Islamic Revivalism and the Quest for Political Power," *Journal of Conflict Studies,* Fall 1997, pp. 115–32. For a very descriptive analysis of the psychologically searing conflict between the Egyptian state and Islamic fundamentalists, see Weaver, *A Portrait of Egypt.*
20. This struggle for the soul of Turkey is extensively analyzed in Arnold Hottinger, "Laizismus und Re-Islamisierung in der Turkei," *Neue Zurcher Zeitung,* 26 September 2001, p. 1.
21. The following discussion of Farag relies heavily on Johannes J. G. Jansen, *The Neglected Duty: The Creed of Sadat's Assassins*

and Islamic Resurgence in the Middle East (New York: Macmillan, 1986), a translation of the manifesto with extensive commentary and analysis. Other works used in summarizing the ideas of Farag include: David Rapoport, "Sacred Terror: A Contemporary Example from Islam," in *Origins of Terrorism: Psychologies, Ideologies, Theologies, States of Mind,* ed. Walter Reich, Woodrow Wilson Center Series (Cambridge, U.K.: Cambridge Univ. Press, 1990), pp. 103–30; Asaf Hussain, *Political Terrorism and the State in the Middle East* (London: Mansell, 1988), pp. 83–87; and Kepel, *Muslim Extremism in Egypt,* pp. 201–4, 210–2, 228–30.

22. Quoted in Asaf Hussain, *Political Terrorism and the State in the Middle East,* p. 86.
23. See Jansen, *The Neglected Duty,* pp. 182–90.
24. See Richard Martin, "Striving in the Path of Allah: A Fundamentalist Interpretation of *Jihad* in Egypt," *Conflict Quarterly,* Spring 1987, pp. 8–10.
25. See Sami G. Hajjar, "Political Violence in Islam: Fundamentalism and *Jihad*," *Small Wars and Insurgencies,* Winter 1995, p. 335.
26. Quoted in Hussain, *Political Terrorism and the State in the Middle East,* p. 86.
27. Jansen, *The Neglected Duty,* p. 210.
28. Ibid., p. 211.
29. Dr. Ayman al-Zawahiri did not enter Afghanistan until 1984. Al-Zawahiri was a founder of Egypt's *Jihad* organization, four members of which killed Anwar al-Sadat in October 1981. Al-Zawahiri is an intellectual, familiar with the many currents of Egyptian Islamic fundamentalist thought. For biographical details of Al-Zawahiri see Michael Collins Dunn, "The Operations Man: Ayman al-Zawahiri," *The Estimate,* 21 September 2001; Daniel Eisenberg, "Osama's Top Brass," *Time,* 8 October 2001; Christian Miller, "The Alleged Brains behind Bin Laden," *Los Angeles Times,* 2 October 2001, p. 1; Alexandre Buccianti, "Ayman el Zawahiri, 'docteur' du *Jihad* Egyptien," *Le Monde,* 26 September 2001; and Ed Blanche, "Ayman al-Zawahiri: Attention Turns to the Other Prime Suspect," *Jane's Intelligence Review,* 3 October 2001. For analysis of how Al-Zawahiri may have influenced Bin Laden, see my forthcoming paper "Post-Modern Terrorism: The Al-Qaeda Network."
30. For biographical details see *Al-Watan al-'Aarabi,* 12 September 2001; *Frontline,* "A Biography of Osama bin Laden," available on the World Wide Web: www.pbs.org/wgbh/pages/frontline/shows/Binladen/who/bio.html.
31. Robert Fisk, "Anti-Soviet Warrior Puts His Army on the Road to Peace," *The Independent,* 6 December 1993, p. 1.
32. Large numbers of volunteers from Pakistan, Bangladesh, and Turkey were sometimes lumped together with the "Afghan Arabs."
33. Quoted in *Frontline,* "Osama bin Laden v. the U.S.: Edicts and Statements," available on the World Wide Web: www.pbs.org/wgbh/pages/frontline/shows/Binladen/who/edicts.html.
34. Ibid.
35. For more details see Ahmed Rashid, "Les Talibans au Coeur de la destabilization regionale," *Le Monde Diplomatique,* November 1999, pp. 4–5; Olivier Roy, "Une fondamentalisme Sunnite en panne de projet politique," *Le Monde Diplomatique,* October 1998, pp. 8–9.
36. See Mark Huband, *Warriors of the Prophet: The Struggle for Islam* (Boulder, Colo.: Westview Press, 1998), pp. 1–4.
37. The formation of Al-Qaeda came after Bin Laden split up with the cofounder of the Maktab al Khidamat, 'Abdallah Azzam, in 1988. In 1989 the latter died in a mysterious car bomb explosion that some people link to Bin Laden.
38. This is explored in greater detail in my forthcoming "The Rise of Post-Modern Terrorism."
39. From Bernard Lewis, "License to Kill: Usama Bin Ladin's Declaration of Jihad," *Foreign Affairs,* November–December 1998, p. 14.
40. "Usama Bin Laden v. the U.S.: Edicts and Statements," interview, *The Independent,* 10 July 1996, excerpts available on the World Wide Web: www.pbs.org/wgbh/pages/frontline/shows/Binladen/who/edicts.html.
41. *Declaration of War (I), (II), (III),* available at http://msanews.mynet.net/MSANEWS/199610/19961012.3.html/, and 19961013.10.html/, and 19961014.2.html.

42. *Declaration of War (I)*, available at http://msanews.mynet.net/MSANEWS/199610/19961012.3.html.
43. Ibid.
44. Ibid.
45. *Declaration of War (II),* available at http://msanews.mynet.net/MSANEWS/199610/19961013.10.html.
46. Ibid.
47. Interview, *Time,* 23 December 1998, excerpt available on the World Wide Web: www.pbs.org/wgbh/pages/frontline/shows/Binladen/who/edicts.html.
48. On Bin Laden's attempts to acquire weapons of mass destruction, see Gavin Cameron, "Multi-Track Microproliferation: Lessons from Aum Shinrikyo and Al-Qaida," *Studies in Conflict and Terrorism,* October–December 1999, pp. 277–309; Kimberly McCloud and Matthew Osborne, "WMD Terrorism and Usama Bin Laden," Center for Nonproliferation Studies, Monterey Institute of International Studies, available on the World Wide Web: http://cns.miis.edu/pubs/reports/Binladen.htm.
49. *Declaration of War (I)* [emphasis supplied].
50. "Exclusive Interview with Usamah Bin Laden: Of Jihad and Terrorism," *Nida 'ul Islam* [The fall of Islam], October–November 1996, originally accessed at http://msanews.mynet.net/MSANEWS/199701/19970115.2.html.
51. Magnus Ranstorp, "Interpreting the Broader Context and Meaning of Bin-Laden's *Fatwa,*" *Studies in Conflict and Terrorism,* October–December 1998, pp. 325–7.
52. From Lewis, "License to Kill," pp. 14–5.
53. Ibid., p. 15.
54. "Full Text of Pakistani Paper's Exclusive Interview with Usamah Bin-Laden," *Ummat,* 28 September 2001, p. 1, in British Broadcasting Corporation, Monitoring Service, 29 September 2001.
55. See Susan Sachs, "Bin Laden Images Mesmerize Muslims," *New York Times,* 9 October 2001, p. 1.
56. See also Judith Miller, "Bin Laden's Media Savvy: Expert Timing of Threats," *New York Times,* 9 October 2001, p. 1.
57. Ironically, 75 percent of Arab-Americans are Christian.
58. This is addressed in great detail by the French scholar Olivier Roy, *The Failure of Political Islam* (Cambridge, Mass.: Harvard Univ. Press, 1994).
59. See, for example, Douglas Macdonald, "Terrorists Hate U.S. for What It Is, Not What It Does," *Long Island Newsday,* 10 October 2001.
60. For details on these sentiments see, inter alia, E. A. Torriero, "Many Fear Wider War on Muslims," *Chicago Tribune,* 10 October 2001, p. 1; Howard Schneider and Lee Hockstader, "Regional Response: Ambivalence," *Washington Post,* 8 October 2001, p. 12; Neil MacFarquhar, "Anger Smoulders in the Streets, Arab Governments Temper Remarks," *New York Times,* 9 October 2001, p. 1; Mariam Isa, "Arab Nations Inhospitable to U.S.," *Washington Times,* 26 September 2001, p. 17; John Burns, "America Inspires Both Longing and Loathing in Arab World," *New York Times,* 16 September 2001, p. 1.
61. For a similar assessment see Arnold Hottinger, "Wer applaudiert Usama Bin Laden?" *Neue Zurcher Zeitung,* 26 September 2001.
62. This is explored in detail in a longer version of this paper, "The Grand Strategy of Usama Bin Laden" (in possession of author).

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Because it was prepared before the 11 September 2001 attack on the World Trade Center and Pentagon, the article cannot and does not reflect ongoing events flowing from it.

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STRATEGIC GEOGRAPHY AND THE GREATER MIDDLE EAST

Robert Harkavy

Occupying a pivotal position at the juncture of Europe, Africa, and Asia, the "Greater Middle East"—here defined as the sum of the core Middle East, North Africa, the African Horn, South Asia, and ex-Soviet Central Asia—likewise occupies a crucial position with respect to some of the major issue areas of the contemporary era.[1] Those issue areas are energy sources and availability; the proliferation of weapons of mass destruction (WMD) and their delivery systems; and the dangerous pairings involving Israel and the Arabs, Iran and Iraq, and India and Pakistan. Surely, this region in its aggregate has come to be viewed by the contending and aspiring world powers—the United States, Russia, a united Europe, China—as a strategic prize, maybe *the* strategic prize.

The geographic aspects of these issues can be analyzed by moving from macro to micro, from grand strategy to operations and tactics (climate and terrain). The new missile programs involving WMD do not easily fit within this framework but apply across issues.

TRADITIONAL AND EMERGING IMAGES

A sketch of traditional geopolitical theory would go somewhat as follows.[2] Alfred Thayer Mahan and Halford Mackinder advanced what appeared to be contrary views on the relative importance of sea and land power for global dominance. Both focused on a global struggle for power between a Eurasian-based land power and a "rimland"-based sea power in the context of global maritime dominance. Mackinder thought that land power was destined to prevail, because of such emerging technological developments as motorized transport, and road and rail networks, which would simplify logistics between the Eurasian core and

the periphery; indeed, he argued, these might also allow the "heartland" power to achieve maritime superiority as well. Mahan read the opposite into emerging technological trends, seeing in them possibilities for dominance by a maritime power, able to project power more easily than before all around the rimland.[3]

What has been the legacy of geopolitics? Geopolitics must be understood as "a conceptual and terminological tradition in the study of the political and strategic relevance of geography."[4] Accordingly, even in the nineteenth century, geopolitics was

> concerned with the implications for power politics of the geographical attributes of states, and of their spatial locations. . . . In the abstract, geopolitics traditionally indicates the links and causal relationships between political power and geographic space; in concrete terms it is often seen as a body of thought assaying specific strategic prescriptions based on the relative importance of land power and sea power in world history. . . . The geopolitical tradition had some consistent concerns, like the geopolitical correlates of power in world politics, the identification of international core areas, and the relationships between naval and terrestrial capabilities.[5]

Nicholas Spykman developed the "rimland" thesis in contrast to Mackinder's "heartland" doctrine. Both believed that at given times, certain regions become pivotal.[6] Mackinder saw the Russia–Eastern Europe area as pivotal. Spykman contended that considerations like population, size, resources, and economic development combined to make the rimland—peninsular Europe and the coastal Far East—the most significant geopolitical zone, domination of which meant global hegemony. American interests thus dictated that the European or the Far Eastern coastland not be dominated by any hostile coalition.

Saul Cohen has used the term "shatterbelts" as roughly equivalent to the concept of the rimland—"a large, strategically located region that is occupied by a number of conflicting states and is caught between the conflicting interests of adjoining Great Powers."[7] Cohen sees the Middle East and Southeast Asia as the primary shatterbelt regions, and, contrary to Samuel Huntington's "clash of civilizations" thesis (about which more below), he holds that "the Shatterbelt appears to be incapable of attaining political or economic unity of action. . . . [I]t is because internal differences are so marked, and because they are found in a region that is crushed between outside interests [Cohen was writing during the Cold War], that we have defined the Middle East as a shatterbelt."[8]

In brief, the core of geopolitical theory boils down to two fundamental questions, questions relevant both before and after the events of 1989–91. The first concerns the role of strategic geography—factors of size and location; the second pertains to militarily important terrain, maritime choke points, and areas containing critical resources.

In recent years still another strand of international relations thinking has come to the fore. "Long-cycle theory," associated with George Modelski and William Thompson, holds that the centuries since 1500 have seen a progression of global hegemonies, lasting about a century apiece, based on maritime and commercial preeminence.[9] This model of successive periods of maritime dominance punctuated by major wars is closely related to Mahan's thesis of undivided naval dominance, but it adds a role for technological breakthroughs in inaugurating periods of hegemony. It is noteworthy that the successive long-cycle hegemonies have had important bases in some of the same places around the Indian Ocean littoral—in the Horn of Africa, around the Straits of Hormuz and Tiran (Aden, Oman), the coasts of India, Sri Lanka, and around the Indonesian Straits.[10]

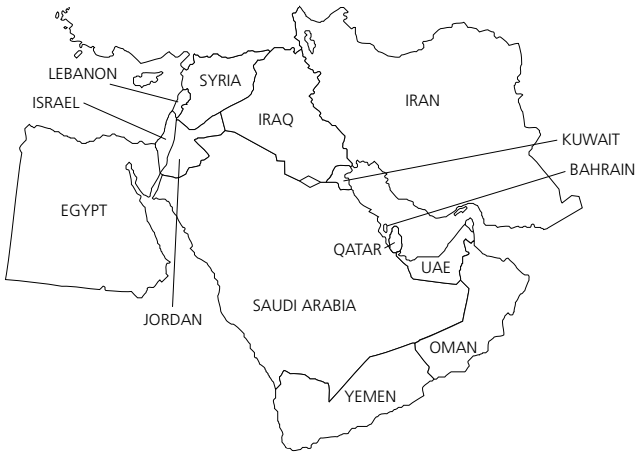
NEW GEOPOLITICAL IMAGES

That much is familiar to most students of international relations. With the Cold War gone, what new geopolitical images have been projected? Six come to mind—ideal (and not altogether discrete) tendencies from which hybrid or transitional models might be generated, in addition to the familiar North-South model: the three-bloc geo-economic thesis, balance of power, the "clash of civilizations," "zones of peace" and "zones of turmoil," the United States as unipolar hegemon, and a revived bipolar competition. Several of these merit brief review.

Economic competition between three blocs has become central to current geo-economic thinking. It assumes that the emerging foci of international relations are: a Japan-led Pacific Rim region including China, Korea, Indonesia, Thailand, and other East Asian powers; a United States–led Western Hemisphere bloc centered on the North American Free Trade Agreement group but potentially encompassing most of Latin America; and a Germany-centered European bloc, assumed to include Russia and other former Soviet states and perhaps also North Africa. The status of Africa and South Asia in this view is ambiguous, if not marginal; the Middle East becomes a wild card, a geo-economic prize.[11] The three-bloc model also incorporates the now widely discussed "end of history" thesis, which proceeds from the end of big-power ideological conflict that dominated the global stage after the 1930s to the prediction that such conflicts will not recur but be superseded by older economic rivalries. Related to this is the popular "democratic peace" theme, which asserts that modern democratic states with high levels of per capita income do not even contemplate fighting each other and never have.[12] Rather, in this view, they exist in Karl Deutsch's rather hoary concept of the "security community."[13]

This is indeed a primitive vision. Some would question, for instance, whether in an era of extensive economic interdependence, multinational industry, and

THE CORE MIDDLE EAST



globalized production of so many goods, a three-bloc model of this sort captures the realities of international trade and investment. Further, the three-bloc model may be too state-centric, too prone to viewing trade as merely between nations rather than throughout a complex web of global corporate patterns of development, production, and marketing. The three-bloc thesis assumes that the Atlantic and Pacific Oceans form natural dividing lines between the Americas bloc and the other two. As such, it ignores the possibility that still newer regional economic blocs might span the great oceans. Competing analyses have begun to focus on "regionalism," or "region states," within Europe, Asia, and North America—for example, that region running from Bavaria to northern Italy, the zone comprising Hong Kong and southern China, the "growth triangle" of Singapore and nearby Indonesian islands, or the Seattle/Vancouver area.[14]

The prospect of renewed multipolarity, or a balance of power, reminiscent of the Europe of the eighteenth and nineteenth centuries has been propounded by Henry Kissinger, *The Economist,* and others.[15] In its various manifestations, it portends an international system having five or six poles of roughly equal weights: the United States, a united Europe, Japan, China, Russia, and perhaps India. It further portends the eventual demise of communism in China and thereafter the absence of competition based on ideological factors in alliances or rivalries, implying the prospect of ever-shifting alliances. It might be the United States and Europe versus the rest in one phase, the United States and China versus Russia plus Europe and India in another. It is not clear whether the United States could or would maintain such naval dominance and bases as were seen in earlier centuries in the face of asymmetries not present then (large Russian and Chinese land armies).

Hence, in this conception, the Islamic Greater Middle East becomes in effect one pole in a rather complex system, with fault lines running between it and Europe, Russia, and India. That would appear to mean a fundamental imbalance of power, in military terms at least, against Islam, perhaps somewhat counterbalanced by oil and gas reserves and their associated political leverage. Because

China, India, Japan and the rest of East Asia, Europe, and the United States are all projected to remain heavily dependent on gas and oil from the Greater Middle East "energy ellipse," the energy producers are assured of being intensely wooed by the other poles.[16]

The "clash of civilizations" model formulated by Samuel Huntington has captured the attention of students of international affairs, particularly in connection with the Greater Middle East.[17]

> It is my hypothesis that the fundamental source of conflict in this new world will not be primarily ideological or primarily economic. The great divisions among humankind and the dominating source of conflict will be cultural. Nation states will remain the most powerful actors in world affairs, but the principal conflicts of global politics will occur between nations and groups of different civilizations. The clash of civilizations will dominate global politics. The fault lines between civilizations will be the battle lines of the future.[18]

Declaring that "fault lines between civilizations are replacing the political and ideological boundaries of the Cold War as the flash points for crisis and bloodshed," Huntington focuses particularly on the cultural lines of demarcation between Western Christianity and Orthodox Christianity in Europe, and between the latter and Islam.[19] The most significant dividing line in Europe, he says, may be the eastern boundary of Western Christianity as of the year 1500. Huntington's thesis is underscored by the several continuing conflicts along this old fault line—in Bosnia, Kosovo, the Turkish-Bulgarian frontier, between Armenia and Azerbaijan, in Chechnya, and in Central Asia (Kazakhstan, Tadzhikistan). Huntington addresses the long interaction between Western Christianity and Islam, noting that the West's military superiority as recently as the Gulf War humiliated some Arabs, reinforcing Islamic movements that reject Western political and cultural values. This can be seen even in Indonesia. Hence, it is with some of these conflicts in mind that Huntington predicts that "the next world war, if there is one, will be a war between civilizations."[20]

A further image, the "zones of peace/zones of turmoil" model, was propounded in Max Singer's and Aaron Wildavsky's *The Real World Order,* which holds that "the key to understanding the real world is to separate the world into two parts," one of which is "zones of peace, wealth and democracy," and the other "zones of turmoil, war and development."[21] In this view, the combination of geo-economics and democratic-peace theory supports the prospects of the zones of peace—Western Europe, the United States and Canada, Japan and the Antipodes, comprising about 15 percent of the world's population. The rest of the world, including eastern and southeastern Europe, the territory of the former

Soviet Union, and most of Africa, Asia, and Latin America, is composed of what are, for now, zones of turmoil and development.

The Singer-Wildavsky thesis abuts at least two other topics of current speculation. First, it is in basic agreement with the idea that there has been a fundamental shift in world affairs among the traditional powers whereby warfare becomes an anachronism, as did slavery. In the view of Singer and Wildavsky, however, this applies only to that fraction of the world that is democratic and, relatively speaking, well off.[22]

Still another future geopolitical image involves American unipolar dominance, primarily in military strength—far less of economic power, which the United States will have increasingly to share with competitors. American military strength—conventional power projection, space, strategic nuclear—could remain indefinitely preeminent, if the U.S. defense budget is not allowed to slide farther. What was long a deterrent to American interventions, a military peer, is now absent, and no new one can be foreseen.

Finally, the academic literature and think-tank realm have circulated various scenarios envisioning a new hegemonic rival to the United States, a new round of Cold War, and a resumption of global bipolarity. China, of course, figures most prominently.[23] Some scenarios see a united and increasingly hostile Europe as America's coming rival.[24] Fewer scenarios dwell on a revived, nationalist Russia (an extrapolation of certain goals and policies of the Putin regime) or a militarily and economically energized Japan.

A contemporary of Mackinder's, James Fairgrieve, suggested the possibility of a heartland farther east than its classical locus between the Vistula River and the Urals, implying that China and its hinterland could become a new heartland, or pivot.[25] But caveats are necessary regarding a U.S.-Chinese rivalry in a heartland/rimland framework. China, of course, has a long Pacific coastline; it does not need "warm water ports" (though it may think it needs ports, for loosely equivalent reasons, on the far side of the Indonesian Straits). However, and unlike tsarist Russia as perceived by Mackinder, it is also vulnerable *from* the sea; there is no glacis of mountains like the Hindu Kush, Elburz, and the Caucasus to protect it from invasion by the United States. China, indeed, is itself located on the traditional rimland.

A CONVERGENCE OF GEOPOLITICS AND GEO-ECONOMICS

How might these conflicting definitional and political arguments apply to the Greater Middle East? Does one have to choose between geopolitics and geo-economics? Are they necessarily mutually exclusive?

First, it must be recognized that the geo-economics thesis really applies to relationships between contending major powers and blocs, and in that sense it is

similar to geopolitics, which saw a long-term tendency toward conflict between dominant land and sea powers. The Middle East does not constitute a power center of that sort; the region has been and is an *object* of major power rivalries. Hence, neither a traditional geopolitical nor a mercantile and essentially peaceful geo-economics model is very useful. There is the potential for a great deal of trouble, perhaps even arms races and war, even between the major democracies—the United States, Japan, and the European Union—now thought permanently immune from security competition.

Nevertheless—and despite oil wealth, which has given some regional nations per capita incomes on a par with the Western democracies—the bulk of the Greater Middle East remains squarely within Singer and Wildavsky's "zone of turmoil." It is broadly characterized by an absence of democracy, internal instability, endemic violence, etc. Daily events in Algeria, Egypt, Turkey, Kurdistan, Kashmir, southern Sudan, Afghanistan, Yemen, and so on, offer little encouragement that this region is at the "end of history"—the end of major warfare and security rivalries. In that obvious sense at least, geopolitics is alive and well in the Greater Middle East. It is a powder keg—over which loom weapons of mass destruction and long-range delivery systems.

There is, then, in the Greater Middle East a convergence of geopolitics and geo-economics, if not in their traditional senses. As a further illustration, parts of the region are developing rapidly in terms of infrastructure (roads, ports, pipelines, etc.) and industry (petrochemicals, crucially), and in terms of modern communications, electricity grids, and the like.[26] But this development has left many nations highly vulnerable to modern precision weaponry, as demonstrated by the U.S. "takedown" of Iraq's infrastructure during the air assault phase of DESERT STORM. Seawater desalinization plants in the Persian Gulf area, for instance, might be critical targets in future wars. All this makes it a matter of urgency not only whether the Middle East will be a "zone of turmoil," somewhat left out of globalization, but also whether part of it will continue to identify with the "southern" half of a North-South divide.

Of course, Huntington's clash of civilization directly applies here. He points out that conflict has been going on along the fault line between Western and Islamic civilizations for 1,300 years. Huntington, like many other contemporary analysts both Western and Islamic, sees these two civilizations as potentially pitted against each other in a conflict that would define the evolving world order. Not everyone, of course, agrees with Huntington's now widely discussed thesis.[27] Nonetheless, to the extent that the clash of civilizations turns out to be predictive, it will be a defining feature of a new strategic map. Perhaps it already is, as concerns the Greater Middle East; the long frontier of the Islamic world—Marrakesh to Bangladesh and beyond—is at the "fault line's" northern end.

While the United States may still be able—norms concerning multilateralism or collective security notwithstanding—to intervene in the Greater Middle East in a repeat of the Gulf War, there are restraints on the exercise of U.S. power in this region. One would be possibly heavy diplomatic pressure from Europe, Russia, and China (maybe combined) against unilateral American action. Also, the U.S. military is now commonly thought (even by its own spokesmen) less capable of large-scale operations than it was a decade ago, technological developments notwithstanding. Third, there are serious questions (or were before the events of 11 September 2001, which occurred as this article was being prepared for press) about whether, in the event of another crisis, the United States would be offered access for its aircraft and ships in the region.

Finally, factors of location and geography now render the heartland/rimland model irrelevant to any China–United States hegemonic competition in the Greater Middle East. Nonetheless, China's proposed pipeline linking it with Central Asia's energy reserves, its acquisition of bases on Burma's offshore islands, and its moves in the South China Sea may well augur a geographically new type of hegemonic competition centered on that part of the old rimland.[28] Also, if current hints of a new Russo-Chinese alliance prove substantial, the West could be presented with a threat from a very large heartland abetted by maritime access to the western Pacific. Such an alliance would inevitably put pressure on the Western position in the Middle East and its oil reserves; India would become a wild card.

GEOGRAPHY AND POWER PROJECTION INTO THE MIDDLE EAST

The geographic aspects of power projection into the Greater Middle East pertain now mostly to the United States, but in the future they could apply to the European Union (which is developing an independent reaction force capable of out-of-area operations), a revived Russia again a force in the Middle East, or even China, should its naval reach establish itself in Burma's Coco Islands and extend westward from there. The subject needs separate treatment, but several points can be made here. They pertain to the geography of power projection broadly construed as dealing with military interventions (unilateral or multilateral), arms resupply to client states involved in wars, and coercive diplomacy—and more specifically with bases, access, overflight, and the physical geography of nations, straits, and islands as it affects power projection.[29]

The experience baseline is the 1990–91 Gulf War, during which the American-led coalition had access to air and naval bases around the periphery of the war zone (Egypt, Turkey, Kenya, and such Gulf states as Oman, Bahrain, and Saudi Arabia) and en route from the United States (a variety of countries in Europe, North Africa,

and East and Southeast Asia). Importantly, in what turned out to be the last months of the Cold War, the coalition also had heavy forces and substantial materiel in Europe, as well as materiel and other support at the British-owned island of Diego Garcia, which is located strategically in relation to the Greater Middle East. Staging rights for transport aircraft were granted by India and Thailand, and overflights were allowed even by ex–Warsaw Pact countries.

Planners can no longer count on anything close to such access. A large portion of the troops and aircraft once in Europe has since returned to the continental United States. Access to, and transit rights over, such states as Morocco, Egypt, Turkey, and even Saudi Arabia are problematic, depending much more than before on the nature of the crisis, despite a much larger "permanent" presence in several of the Gulf Cooperation Council states. Even Europe could be in question if the political divide between the United States and the European Union over Middle Eastern policies should widen. Hence, worst-case scenarios have envisioned the United States in a tough situation, attempting to intervene in the Gulf area mostly from bases in the continental United States and from carrier battle groups and amphibious formations.

A number of salient geographic problems emerge in such an analysis. Overflight rights in Europe (notably Spain and France) and in the Middle East itself (Egypt, Saudi Arabia) are prominent among them. So too is basing access in Egypt, Turkey, Kuwait, Saudi Arabia, Bahrain, Qatar, and Oman, all in the vicinity of the crucial Gulf. (Israel could be added, however politically undesirable that might be.) Transit rights through Suez and the feasibility of passage through the crucial Bab el Mandeb and the Strait of Tiran also stand out. Diego Garcia is potentially vital, especially if access is denied elsewhere.

A final point here is the geography of a still hypothetical U.S. regional missile-defense system, perhaps entirely sea based. Issues would include the effectiveness of such a system in the Persian Gulf or Arabian Sea, and whether there would be access ashore for replenishment, crew rest, etc. The political geography of that problem looms particularly large in the face of projections of future Iraqi and Iranian nuclear weapons and missile delivery systems.

The Geography of Weapons of Mass Destruction

It is fairly clear that nuclear proliferation in the Greater Middle East will produce arsenals on both sides of each of its three conflict pairings—the Arab world–Israel, Iran-Iraq, and India-Pakistan. Events are also moving toward biological and chemical warfare capability in Iran and several Arab states, including Egypt and Syria; and toward long-range missile capabilities that will allow all of these WMD-armed states to strike not only contiguous rivals but nations far afield. With the exception of North Korea (and of course China, a longtime nuclear state), the concerns that have fueled American interest in homeland ballistic missile defense arise in this region.

Essentially, in its geographical aspects, this subject breaks down into four parts: the contiguous nature of the conflict pairings; the burgeoning threat of WMD-armed ballistic missiles to Europe and the United States; the possibilities for "indirect" or "triangular" deterrence and compellence; and the geography of the movement or smuggling of WMD technology, materials, and skills.

The first point is in clear contrast to the nuclear standoff during the Cold War. Neither the United States nor the Soviet Union had seriously to concern itself with being overrun (though their allies might have been) by the other's conventional forces. For that matter, even at the height of the Cold War there was little actual hatred between the Russian and American peoples—one almost had the feeling, going back to their combined victory in 1945, that they actually liked each other.[30] In the Greater Middle East we have terrific, long-standing, primordial hatreds between peoples; fears that conventional battlefield defeat would be followed by genocide; and very short flight times for missiles and aircraft bearing weapons of mass destruction, producing hair-trigger preemptive situations. Some would argue further that not only are "fail-safe" capabilities of command and control systems more limited than those of the United States and USSR but that irrational, culturally based decisions are more likely.

Secondly, several regional nations are likely eventually to acquire long-range ballistic missiles that could reach not only across the Middle East but well outside it. Pakistan and Israel will be able to target each other. Iran and Iraq will be able to target all of Europe and Russia, maybe later the United States. Israel will be able to target all of Europe and Russia (perhaps to deter any tilt toward, or willingness to resupply with arms, the Arabs). India will be able to target all of China, as well as Russia and Europe, maybe also the United States. Israel and India, at least, could also launch WMD attacks against nations outside the region by aircraft. All of these projections, of course, beg the question of whether the United States, alone or with allies, will be able to install defensive systems effective against at least some kinds of missile attacks.

The Iraqi Scud attacks on Israel and Saudi Arabia during DESERT STORM introduced what may be a new "asymmetric" strategic problem. In the future, a Middle Eastern "rogue state" threatened by the United States may respond against a regional U.S. ally, or even against a nation not at all friendly with the United States, trading on traditional American sensitivity to innocent casualties.[31] As missile ranges in the Greater Middle East expand, so do the options for such "triangular" strikes.[32]

Geography is also largely accountable for the ease of illegal transfers of WMD material from the former Soviet Union to such Middle Eastern states as Iran and Iraq. Much of the old USSR's nuclear infrastructure was near the borders of neighboring Middle Eastern states; truck routes via Serbia, Bulgaria, and Turkey are hard to monitor.[33] Where there is a will (and money to grease palms), there is likely to be a way.

Operational and Tactical Geography

The military geography of the Greater Middle East affects the operational and tactical levels of warfare in a number ways:[34] the conduct of a two-front conventional war; strategic depth; climate; the size of the theater and the length of borders, or of the "forward line of troops"; the ethnography of battle areas or frontiers; patterns of settlements and road networks; and mountains and rivers, as barriers.

The geographical aspects of two-front conventional warfare could be critical in another round of Arab-Israeli fighting should Egypt become involved. However, let us focus on two other points: strategic depth (which relates to nuclear proliferation and possibly warfare) and climate (weather and the seasons), with respect to military technology.

Strategic Depth. "Strategic depth" is a staple of the military literature; it refers, broadly speaking, to the distances between the front lines or battle sectors and the combatants' industrial core areas, capital cities, heartlands, and other key centers of population or military production. How vulnerable are these assets to a quick, preemptive attack or to a methodical offensive? Conversely, can a country withdraw into its own territory, absorb an initial thrust, and allow the subsequent offensive to culminate short of its goal and far from its source of power? The issue is the trade-off between space and time; a classic historical case is Germany's failure to knock out the Soviet Union in 1941–42.

How have these traditional considerations applied to recent wars in the Greater Middle East? How have they influenced preemptive attempts to produce dramatic, conclusive victories? How important have been the asymmetries between specific adversaries? In the early stages of the war between Iraq and Iran, Iraq—then considered the weaker power—launched an offensive to seize the

STRATEGIC DEPTH: IRAQ/IRAN

Khuzestan oil region, hoping that the eventual truce would make the conquest permanent. Initially the strategy met with some success, but there was little chance of a quick, decisive Iraqi victory (a more substantial campaign would have required better combined-arms tactics and logistics than Iraq possessed). Iran enjoys vast strategic depth, buttressed by the formidable barriers of a lava plain and the Zagros Mountains, behind its western frontier. Teheran is some 260 miles from the border, Isfahan approximately 240 miles. The smaller cities of Kermanshah and Ahwaz (just west of the oil fields, which are on the western slopes of the Zagros range) are closer but not easy to overrun in a rapid offensive; only the area around Khorramshahr was vulnerable to a quick "seize and hold" operation.

On the other hand, Iraq has little strategic depth, almost none in the south; throughout the war it was highly vulnerable to Iranian offensives across the Shatt-al-Arab toward Basra, a major city only about ten miles from the frontier. Baghdad, farther north, is only some seventy miles from the border. The major cities in the oil-rich Kurdish area, Kirkuk and Mosul, are less than a hundred miles from the frontier. Additionally, the main roads connecting these cities run parallel to and close to the frontier. In theory, Iraq is subject to knockout by a quick offensive, and Iran made enormous and costly efforts to achieve that end, shelling Basra heavily in the process, though it never succeeded in exploiting Iraq's vulnerability in strategic depth.

The current India-Pakistan military balance also illustrates the impact of asymmetries in strategic depth. Pakistan is potentially subject to a quick, preemptive attack.[35] Its main cities lie even closer to the border than do Iraq's, and like Iraq its critical road and rail communications run along the frontier. Karachi is a hundred miles from the border, Hyderabad eighty, Islamabad and Rawalpindi fifty, and Lahore only twenty. (Yet in 1965 and 1971 Pakistani forces did manage to defend the border areas against superior forces in short wars.) By contrast, on the Indian side, while Amritsar is vulnerable, only twenty miles from the frontier, Ahmadabad is 120 miles away, New Delhi more than two hundred miles, and

STRATEGIC DEPTH: INDIA/PAKISTAN

Bombay over four hundred. These distances are striking (though the terrain is generally favorable for mechanized forces) in view of well publicized earlier Pakistani ambitions to conduct a lightning preemptive strike toward New Dehli.

The Arab-Israel conflict has also illustrated the importance of strategic depth, although in some surprising ways. Before 1967 it was common to speak of Israel's extreme lack of depth along its borders with Egypt, Jordan, and Syria; from the West Bank, a Jordanian advance of only nine miles west could literally have cut Israel in half. Syria was close to the Galilee settlements, and Egypt was poised to strike quickly at Eilat, Beersheva, and Ashdod, indeed at all of Israel. But Israel's preemptive assault in 1967 took advantage of interior lines that allowed the small state to act like a "coiled spring."

The denouement gave Israel an additional 120 miles of strategic depth across the northern Sinai, then widely thought to be a margin of badly needed safety. But Israel's setbacks in the early phases of the 1973 war along the Suez Canal proved again that the advantages of strategic depth are at least partially offset by vulnerability resulting from extended lines of communication.[36] On the other hand, the 1967 Israeli capture of the Golan Heights proved critical in 1973. Then, and again in 1982, it was of enormous concern to Syria that Israeli forward positions in the Golan were only some thirty miles from Damascus. But paradoxically, Israel was also *more* vulnerable on the Golan in 1973; the very proximity to core areas shortened Syria's lines of communications and lengthened Israel's.

Since then both Israel and Syria have been in a precarious situation of shallow defensive depth vis-à-vis one another, which is why the Golan has remained such a contentious issue. As for Jordan, Amman is only twenty miles from the Jordan Valley, and Jerusalem is almost as close to the Jordanian frontier on the

Jordan River, albeit behind steeper, more imposing defensive terrain. Eilat and Aqaba, the two key ports for Israel and Jordan, on the Gulf of Aqaba, are contiguous mutual hostages. To the north in Lebanon, the fact that Beirut is only sixty miles from Israel's frontier rendered it highly vulnerable in 1982 to a quick armored strike, supported by leapfrogging amphibious operations along the coast.

Generally speaking, then, in the core Middle Eastern zone of conflict, distances are very short and produce fast-moving wars with quick outcomes (the Iran-Iraq War is a partial exception). The implication for weapons of mass destruction is stark and potentially ominous. Israel and Pakistan, and perhaps also Iraq to a lesser degree, labor under the threat that sudden and decisive conventional battlefield defeats could quickly raise the specter of mass destruction, particularly by nuclear weapons.

If a Palestinian state is ever created in the West Bank and Gaza, Israel's security belt in the Jordan Valley is removed, and the Golan Heights are returned to Syria (with or without demilitarized zones), Israel will be returned to the vulnerable strategic situation of pre–June 1967. Its features will include the nine-mile corridor north of Tel Aviv between a new Palestine and the sea, and a danger in the Galilee area of a Syrian attack that quickly menaces Israeli towns. Then too, a vast buildup of Egyptian forces with U.S. weapons, like the M1A1 tank, would open the possibility of an Egyptian attack out of Sinai. Such an assault, threatening Israel as it would with massive and unacceptable casualties, might bring on early use of Israeli tactical nuclear weapons—likewise in the Golan and in the West Bank, if Jordanian or Iraqi forces should mount an attack out of the Jordan Valley area.

Likewise, Pakistan, its population and industrial cores menaced by a quick Indian offensive, might be tempted to almost immediate, at least tactical, nuclear use. Here, by contrast with the Israeli case, such threats might be tempered by Indian escalation dominance up and down the "ladder." Another scenario might be an Indian attempt to take out Pakistan's nuclear infrastructure (also, unavoidably, located near the border), a risky venture that would, escalation dominance notwithstanding, bank precariously on "rational" decision making on the part of the Pakistanis.

Despite Iraq's quasi-victory over Iran in 1988, the facts of demography and gross national product would weigh heavily in Iran's favor in the case of a future conflict (at present, tensions between the two countries are rather low, but bad blood long antedates the 1980–88 war). As noted, Baghdad is not far from the border. Unlike India, Iran may still have only limited capabilities for relatively long-range combined-arms offensives. But Iraq's previous use of chemical warfare could augur a WMD response to a conventional battlefield defeat, Iran's own possession of such weapons notwithstanding.

Climate. The weather and seasons in the Greater Middle East, and related matters of terrain and topography, present a very mixed and varied picture. Fighting has occurred on the Sinai and Rajasthan Deserts; in the mountainous terrain of central Lebanon and the Golan Heights, the Zagros Mountains northeast of Baghdad, the Himalayan foothills in the southern Kashmir region, and the Punjab along the India-Pakistan frontier; in the Rann of Kutch and Haweizeh Marshes; and in the riverine and semijungle areas of Bangladesh. Rugged mountainous terrain has also been the scene of conflict in western Sinai, Yemen, Chechnya, Afghanistan, Georgia, Tadzhikistan, Algeria, Kurdish eastern Turkey, and Kurdish northern Iran, among other places. Neither terrain nor extreme environmental conditions preclude military operations.

A major problem regarding the weather itself involves the unique conditions the Greater Middle East presents for high-technology weapons used by the United States and its allies. The climatic conditions in and around Kuwait and southern Iraq were remarkably suitable for the 1991 air campaign (the unusually inclement weather during part of that operation notwithstanding).[37] Clear skies favor a side able to achieve virtually uncontested control of the air, like Israel in 1967 and (after a ten-day delay) 1973. Climate also facilitated Israel's destruction of the Osirak reactor in Baghdad in 1981. In the 1980–88 war, the fecklessness of the Iranian and Iraqi air forces rendered such factors largely moot. On the other hand, human beings exposed to the summer desert, winter in Kashmir, or the spring *haboobs* over Iran quickly reach their limits.

What then for the future? Will geography, terrain, and climate offer advantages to modern air forces in future Greater Middle East conflicts? Will "asymmetric strategies" of a passive sort (underground fiber-optic communications, improved camouflage and deception techniques, and traditional methods of clandestine warfare such as the *mujahedin* employed against Soviet forces) prove insurmountable?

Implied here is a technology race involving potential developments on both the high and low sides, advances that can alter asymmetries, as indeed did the introduction of newer surface-to-air missiles and radars into the Suez Canal area in 1973. How well will new reconnaissance satellites penetrate cloud cover and tree cover, and thereby allow effective interdiction in less than optimal conditions? There were hints in the Bosnian and Kosovo operations that such matters had come some distance; if so, air superiority in the Greater Middle East will become more vital than ever. In any event, geography itself will remain the most important strategic factor in military operations in this region.

NOTES

1. See Geoffrey Kemp and Robert E. Harkavy, *Strategic Geography and the Changing Middle East* (Washington, D.C.: Brookings Institution, for the Carnegie Endowment for International Peace, 1997), pp. 13–5.
2. For further reading see Thomas Mackubin Owens, "In Defense of Classical Geopolitics," *Naval War College Review,* Autumn 1999, esp. pp. 64–70.
3. A. T. Mahan, *The Influence of Seapower upon History, 1600–1783*, updated ed. (Boston: Little, Brown, 1980).
4. Oyvind Osterud, "The Uses and Abuses of Geopolitics," *Journal of Peace Research,* no. 2, 1988, p. 191.
5. Ibid., pp. 191–2.
6. David Wilkinson, "Spykman and Geopolitics," in *On Geopolitics: Classical and Nuclear,* ed. Ciro Zoppo and Charles Zorgbibe (Dordrecht, Neth.: Maartinus Nijhoff, 1985).
7. Saul Cohen, *Geography and Politics in a Divided World* (New York: Random House, 1963), esp. pp. 83–7. He refers to a similar use of the term "crush zones" in James Fairgrieve, *Geography and World Power,* 8th ed. (London: Univ. of London Press, 1941).
8. Cohen, p. 233.
9. The hegemonies are those of Portugal (some scholars prefer Spain), the Netherlands, Great Britain (twice), and the United States. See, for example, George Modelski, *Long Cycles in World Politics* (Seattle: Univ. of Washington Press, 1985); and George Modelski and William R. Thompson, *Seapower in Global Politics, 1494–1993* (Seattle: Univ. of Washington Press, 1988).
10. A pattern William R. Thompson refers to as a "system leader lineage"; see his "Passing the Torch in a Manner of Speaking: The System Leader Lineage," paper presented at International Studies Association annual meeting, Toronto, 1997.
11. Walter Russell Mead, "On the Road to Ruin," *Harper's,* March 1990, pp. 59–64; Jeffrey Garten, *A Cold Peace* (New York: Times Books, 1992); Edward Luttwak, *The Endangered American Dream* (New York: Simon and Schuster, 1993); and Lester Thurow, *Head to Head: The Coming Economic Battle among Japan, Europe, and America* (New York: William Morrow, 1993).
12. See, amidst a now massive literature, Bruce M. Russett, *Grasping the Democratic Peace* (Princeton, N.J.: Princeton Univ. Press, 1993).
13. Karl W. Deutsch, *Political Community and the North Atlantic Area* (Princeton, N.J.: Princeton Univ. Press, 1957).
14. Kenichi Ohmae, "Rise of the Region State," *Foreign Affairs,* Spring 1993, pp. 78–87.
15. Henry Kissinger, *Diplomacy* (New York: Simon and Schuster, 1994), and "The New World Order: Back to the Future," *The Economist,* 8 January 1994, pp. 21–3.
16. See Kemp and Harkavy, *Strategic Geography,* chap. 4.
17. Samuel Huntington, "The Clash of Civilizations?" *Foreign Affairs,* Summer 1993, pp. 22–49. See also his *The Clash of Civilizations and the Remaking of World Order* (New York: Simon and Schuster, 1996).
18. Huntington, "The Clash of Civilizations?" p. 22.
19. Ibid., p. 29.
20. Ibid., p. 39.
21. Max Singer and Aaron Wildavsky, *The Real World Order* (Chatham, N.J.: Chatham House, 1993).
22. The model clearly denies the thesis of Richard Rosecrance positing a historical alternation between periods in which the major powers compete in terms of military security, and others in which they compete on the basis of trade. See his *The Rise of the Trading State* (New York: Basic Books, 1986). The "zones of turmoil" idea finds echoes in some other recent work, such as that of Robert D. Kaplan, who sets out to show "how scarcity, crime, overpopulation, tribalism, and disease are rapidly destroying the social fabric of our planet." See his "The Coming Anarchy," *Atlantic Monthly,* February 1994, pp. 44–76, and *The Coming Anarchy: Shattering the Dreams of the Post Cold War* (New York: Vintage Books, 2001).
23. This in light of predictions that China's gross national product will equal that of the United States in another twenty or thirty years if its high growth rates are maintained. Richard

Bernstein and Ross H. Munro, *The Coming Conflict with China* (New York: Knopf, 1997).

24. See Robert J. Lieber, "The United States as a Reluctant Hegemon," paper presented at conference on Global Leadership, Stability, and Order: Hegemony and the Provision of International Collective Goods, University of Hohenheim, Germany, June 2000.
25. Fairgrieve.
26. See Kemp and Harkavy, *Strategic Geography,* chap. 10.
27. Fouad Ajami, for instance, believes Huntington underestimates the tenacity of modernity and secularism in the Greater Middle East and elsewhere in the developing world, and he downplays the threat to the West represented by traditionalist movements in Egypt, Algeria, Iran, Turkey, and India, among others. Ajami sees Western culture and values as having been totally and irreversibly internalized in these places, and Huntington as having understated the continuing role of the nation-state. Fouad Ajami, "The Summoning," *Foreign Affairs,* September–October 1993, pp. 2–9. John Esposito, one of those who oppose this new form of "orientalism," insists that most Islamic movements are not necessarily anti-Western, anti-American, or antidemocratic and that westerners are mistaken in interpreting Islam as a monolith rather than a complex and diverse realm. John L. Esposito, *The Islamic Threat: Myth or Reality?* (Oxford, U.K.: Oxford Univ. Press, 1992), esp. pp. 168–212.
28. See Kemp and Harkavy, *Strategic Geography,* chap. 4, p. 140, regarding a possible pipeline from Tengiz through China to transport Central Asian oil and gas to markets on the Pacific rim. This is still highly conjectural.
29. A more detailed analysis is in ibid., chap. 7.
30. See Robert E. Harkavy, "Escalation Ladders and Escalation Dominance: From the Central Nuclear Balance to New Regional Conflicts," in *Strategy and International Politics,* ed. Robert L. Pfaltzgraff and William R. Van Cleave (Frankfurt, Ger.: Peter Lang, 2000), pp. 241–58.
31. See Robert E. Harkavy, "Triangular or Indirect Deterrence/Compellence," *Comparative Strategy,* January–March 1998, pp. 63–81.
32. An Iran or Iraq threatened by the United States could in turn threaten Israel, Saudi Arabia, or Turkey (also Germany or Italy). North Korea could threaten Japan if it were threatened by a U.S. strategic campaign. Such a scenario was outlined in Caspar Weinberger and Peter Schweizer, *The Next War* (Lanham, Md.: Regnery, 1996).
33. See Kemp and Harkavy, *Strategic Geography,* pp. 291–4, "The Geography of Illicit Nuclear Transfers."
34. A fuller discussion of these aspects appears in ibid., chap. 5.
35. Discussed in Shirin Tahir-Kheli, "Defense Planning in Pakistan," in *Defense Planning in Less-Industrialized States,* ed. Stephanie Neuman (Lexington, Mass.: D. C. Heath, 1984), chap. 7. According to a Pakistani officer whom she quotes (page 212), "Pakistan feels exposed because its line of communication and the highly developed canal system that irrigates the fertile areas of Pakistan that are critical to its economic survival run close to the Indo-Pakistani border." The Pakistani officer further stated that India's capture of the Pakistani territory within just twenty-five miles of the border would effectively destroy the nation, because its communications, irrigation, industry, and population are "all together within that depth."
36. See, among others, Chaim Herzog, *The War of Atonement, October 1973* (Boston: Little, Brown, 1975), esp. chaps. 1 and 18.
37. U.S. Dept. of Defense, *Conduct of the Persian Gulf War: Final Report to Congress,* pursuant to Title V of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (Public Law 102-25), Washington, D.C., April 1992.

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HOW CHINA MIGHT INVADE TAIWAN

Piers M. Wood and Charles D. Ferguson

While defense analysts agree that the Taiwan Strait remains a flashpoint for armed conflict because of China's near obsession with reunification with Taiwan, these analysts generally fall into two camps regarding China's ability to carry out a successful invasion against Taiwan, either today or in the foreseeable future.

One camp enumerates disproportionate numerical advantages in combat aircraft, soldiers, submarines, etc., that the People's Republic of China enjoys over Taiwan and also cites China's acquisition of advanced Russian *Sovremenny*-class destroyers, SS-N-22 Sunburn antiship cruise missiles, and Sukhoi-27 combat aircraft. While stopping short of predicting an easy victory over Taiwan, these analysts typically conclude that the United States must increase its military ties with Taiwan.[1] Other analysts envision a marked decrease in Taiwan's military capabilities in mid-decade that could give China an edge by the end of the decade. Some point out, however, that even massive U.S. arms shipments to Taiwan would do little in the short term to enhance the island's defenses, because of the time it would take Taiwan's military to absorb the new equipment.[2]

The other camp, in contrast, recognizes Taiwan's qualitative advantage in combat aircraft and warships. Moreover, this group perceives the difficulties inherent in an invasion of Taiwan and grasps the natural advantages possessed by defending forces.[3] Although these analysts acknowledge that Chinese modernization could someday prove decisive in a future invasion attempt, they usually place this development ten or twenty years hence.

The first school of thought is flawed by its reliance on more or less sophisticated "bean counts" that stop short of a full operational analysis. The second camp, for its part, is playing by Western rules and perhaps forgets that twice in

the last fifty years the United States has underestimated the determination of Asian militaries, with severe consequences. Further, both groups generally presume that an invasion would be an all-or-nothing proposition, positing that an invasion must occur in one fell swoop (the "nothing" possibility including an "escalating ladder" of threats meant to intimidate Taiwan into capitulation without an invasion). By and large, they neglect, or do not probe in detail, a third contingency—a phased military operation. Faced with operational realities, military professionals most often think in terms of extended campaigns. However, in this case the staging aspect has been so seldom addressed recently that few modern readers are even aware that the Peng Hu Islands (formerly the Pescadores) sit astride the invasion routes across the Taiwan Strait—as hard to ignore, tactically, as an ox in the living room.

As a contribution to the debate over whether or not China possesses the capability to invade Taiwan in the near term, this article assesses this missing factor from a doctrinal perspective and finds that a phased invasion, one that ratchets up the level of offensive operations, has a better prospect of success than an all-out attack against the main island of Taiwan. While we make no predictions about the success or failure of a Chinese invasion against Taiwan in the foreseeable future, we caution that a determined China could launch an invasion sooner than the five, ten, or twenty years that some have projected, though it would be unlikely to succeed if it made the attempt today.

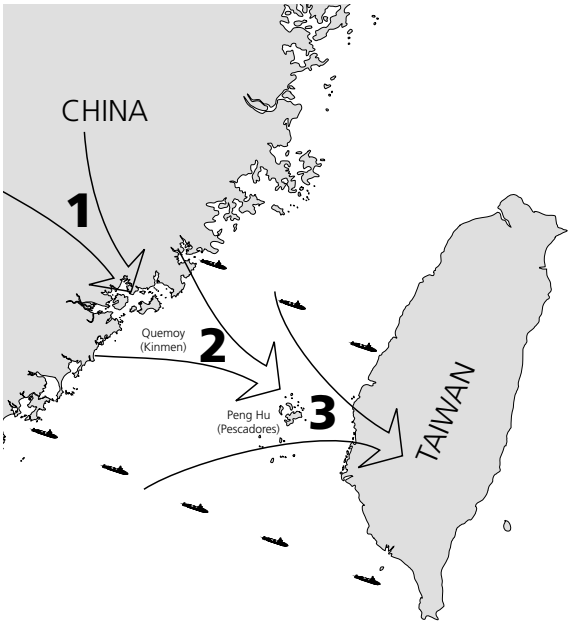
PHASED INVASION

The People's Liberation Army could realize a number of important advantages, should it invade Taiwan, by conducting the operation in three phases: seizing Quemoy (Kinmen) and other islands close to the mainland, capturing the Peng Hu Islands, and assaulting Taiwan's west coast. By attacking these objectives in succession, the Chinese could amass great numerical superiority against each one in turn and render the next object less defensible. This stepping-stone strategy would place the defenders in the predicament of deciding whether to absorb casualties fighting for key terrain currently under attack or to conserve resources for a final stand on the main island.

Phasing could work to the Chinese advantage for other reasons as well. Beijing could exploit the initial phase domestically, creating a state of war fever that would generate support for military construction projects that would in turn be essential for succeeding phases but would seem unjustifiable in peacetime. Moreover, a break after the first two phases would allow an opportunity for major upgrades in military training, taking advantage of experience gained in what would amount to combat "rehearsals" for an assault against the main island. Long halts would keep the door open for a general surrender or a favorable

negotiated settlement with Taiwan. Notably, the preliminary phases might also be viewed as less than a full attack on the island, and thus as not justifying U.S. military intervention.

For the People's Liberation Army, an attack on Quemoy represents more an opportunity than a risk. Although Quemoy is heavily fortified with tunnel and bunker complexes, the Chinese would have little difficulty amassing five-to-one odds against Quemoy's fifty-five thousand defenders. Also, because of its proximity to the mainland and the shallow depth of the water between, an attack on Quemoy would resemble less an amphibious invasion than a river crossing. Accordingly, the Chinese could safely presuppose one of the cardinal precepts of amphibious doctrine, air superiority. That is, they could conduct the attack under the umbrella of air defense forces—both on the mainland (long-range surface-to-air missiles belonging to the People's Liberation Army Air Force) and missile and antiaircraft-artillery forces integral to the army assault units themselves. Keeping the Chinese air force largely out of this battle would preserve its aircraft, while air defense forces could shoot down some of the Taiwanese air force's best aircraft—unless the Taiwanese held them back. Chinese antiair artillery would have two factors in its favor: huge numbers and concentration of firepower. The Chinese could employ about sixteen thousand air-defense artillery tubes, compared to the four thousand guns that Iraq had in the Persian Gulf War. Also, and again in contrast to DESERT STORM, this battle would take place in a confined space—fifty miles of coastline and inland perhaps thirty-five miles.



The Peng Hu Islands, the second-phase objective, comprise a dozen or so rocky islets in the Taiwan Strait, thirty miles from Taiwan. Because the Taiwanese forces (currently numbering sixty thousand) on the Peng Hus could threaten the flank of an assault against the main island, the Chinese must take these islands first in any case. By the same token, however, once seized these islands could prove useful in preparing for the final invasion.

The actual amphibious landings in the Peng Hus would be on a much smaller scale than the mammoth invasion of the main island, but it would serve as a test of China's capability. Unlike the first phase, without air superiority and

at least some measure of sea control, any hope of victory in this phase, and accordingly in the overall campaign, would be lost. Absent those prerequisites, the offensive forces might be obliged to abort the operation, making an assault on Taiwan one of history's nonevents—like Hitler's invasion of England.

This is not to say that success *requires* a multistaged campaign. The point here is that the time factor dramatically changes the operational parameters of a cross-strait invasion—Taiwanese defenders are in much greater peril from a methodical campaign than from an abrupt, full-scale assault. So also, Beijing politicians may see strategic safety in such incrementalism.

OPERATIONAL REQUIREMENTS

A clear understanding of the essential requirements of any amphibious operation—whether or not conducted in phases—is necessary in determining whether China could invade Taiwan. U.S. joint amphibious doctrine—which, based upon historical experience, is the most authoritative source for any amphibious warfare—sets out four fundamental precepts for amphibious operations.[4] The first is that air superiority must be achieved before embarkation of troops and maintained throughout the assault and landing. Second, sea control—ideally, outright sea denial—is necessary to ensure freedom of movement at sea and thereby protect troop transports and prevent naval counterattacks. Third, carefully choreographed sea lift from embarkation to landing is vital for the coherence of tactical units on the beach, and sea-lift capacity must be sufficient to give the ground assault a numerical advantage. Finally, the landing force must achieve fire superiority on the beach before launching the assault. Fire support—naval gunfire, close air support, and field artillery—must be reliably and quickly available.

Before examining these requirements in detail, we need to specify a set of reasonable assumptions to bound the analysis. The first is that China would not resort to nuclear war.[5] Further, we posit that China would not launch a "people's war" of insurgency. The third assumption is that the United States would not militarily intervene before China actually attempted to establish an amphibious beachhead on the island.

Air Superiority

Air superiority represents the most critical precept, because the other factors depend upon it. Therefore, for the purposes of this analysis, we assume that China would not proceed with an invasion unless it could achieve air superiority.

> Virtually all practitioners of amphibious warfare have considered sea control and air superiority to be prerequisites to landing. . . . The amphibious attacker has the initiative. If control of the sea and air is not gained at least in the immediate area of a

landing, the attacker can postpone or cancel the landing. The defender has no such option. The corollary, of course, is that a defender can usually deter a landing by maintaining air and sea control.[6]

Table 1 displays the quantitative advantage of China in fighter and attack aircraft versus Taiwan.[7] However, the Chinese air force and naval aviation are qualitatively outmatched. Only the Russian-made Su-27 long-range air-superiority fighter and the Su-30 (a two-seat, multirole, long-range interceptor version of the Su-27) come close to matching the most advanced Taiwanese aircraft.

TABLE 1
CHINESE/TAIWANESE EQUIVALENT FIGHTER/ATTACK AIRCRAFT

PRC (fmr Russian designation)	Low Est.	High Est.	Taiwan	Inventory
J-11 (Su-27)	48	65*	F-16	150
—(Su-30)**	–	40*	Mirage 2000	60
J-8	100	300*	IDF (Ching-Kuo)	130
J-7 (MiG-21)	600	780*	F-5	200
J-6 (MiG-19)	1,750*	3,450		
Q-5	330*	600		
J-5 (MiG-17) and J-4 (MiG-15)	0	400		
Total	2,830†	5,635		540

*IISS figures (giving a total of 3,300).
**Su-30 MKK, "delivered but not in service," hence no PRC designation.
†Defense Dept. unclassified total is 4,300 "tactical fighters."

Nonetheless, before discounting the impact of the Chinese quantitative advantage, one should consider two crucial factors not properly emphasized in the literature.[8] First, China's principal objective in the air war would be to attack airfields in order to reduce the sortie rate of defending aircraft, *not* to maximize air-to-air kills. Second, China can build fields close enough to Taiwan to allow even older aircraft to reach the island in large numbers. Presently, it can support in revetments about 1,100 combat aircraft in the twenty-two airbases within 370 miles—that is, within striking distance—of Taiwan.[9] In addition, there are perhaps two dozen more air facilities between 370 and five hundred miles from Taiwan. Their aircraft could defend the bases closer to the coast and replace aircraft shot down.

However, it would do the People's Liberation Army Air Force little good to reduce the defenders' sortie rate if China could not quickly "turn around" aircraft—that is, keep large numbers of its own aircraft over enemy airfields. The Chinese sortie rate, in turn, would depend upon the capacity of close-in airfields. Clearly, China cannot achieve air superiority, and therefore cannot invade Taiwan, until it builds new airfields near Taiwan or greatly expands existing ones. By the same token, it might be imprudent to presume that China cannot rapidly do so; airfield construction does not require advanced technologies. A nationwide reallocation of resources would get the job done in a matter of months, not years.

As for China's ballistic missiles, certain crucial factors deserve emphasis. The current inaccuracy of these missiles means that, at the current rate of buildup, China will require several more years to produce missiles in sufficient numbers to damage Taiwanese airfields significantly enough to retard their sortie rates.[10] However, the most important effect of preemptive missile strikes would be the suppression of air defenses. Missiles would be especially effective for that purpose were the Chinese to incorporate cluster munitions, which would spread thousands of bomblets over wide areas.[11]

Sea Control

Air cover would not completely protect the movement and landing phases of the invasion from the defending fleet. The Taiwanese navy has thirty-five principal surface combatants, compared to fifty-three for China. Nonetheless, and despite plans to acquire advanced destroyers from Russia, the Chinese navy is qualitatively outmatched in most categories of warships. Its surface combatants alone could not protect the landing force in transit and secure the supply lines thereafter. China's submarine force would be the key factor in offsetting the Taiwanese navy's impressive capabilities.

China's seventy submarines—against Taiwan's four submarines (two of the World War II–vintage "Guppy" type)—could establish a corridor just before the assault, in a form of sea denial uniquely suited to the confined Taiwan Strait. Even Taiwan's advanced antisubmarine warfare resources—including seven frigates of the *Cheng Kung (Oliver Hazard Perry)* class, with antisubmarine helicopters—could not effectively oppose so many boats.[12] Submarines guarding both sides of the swept zone could deny passage to Taiwanese surface combatants with reasonable effectiveness; depending on the assault route, each submarine would be responsible for as small a sector as two to five miles.

On the other hand, because most of the strait is fairly shallow, Chinese submarines would have limited ability to hide. Some might operate on or near the surface, losing much of their advantage. However, the southeasterly approach

from China to Taiwan offers deeper waters and perhaps therefore a logical attack corridor. Although using submarines to establish an attack corridor is a bit unorthodox, it could be a major mistake for Taiwan's navy to ignore the possibility.

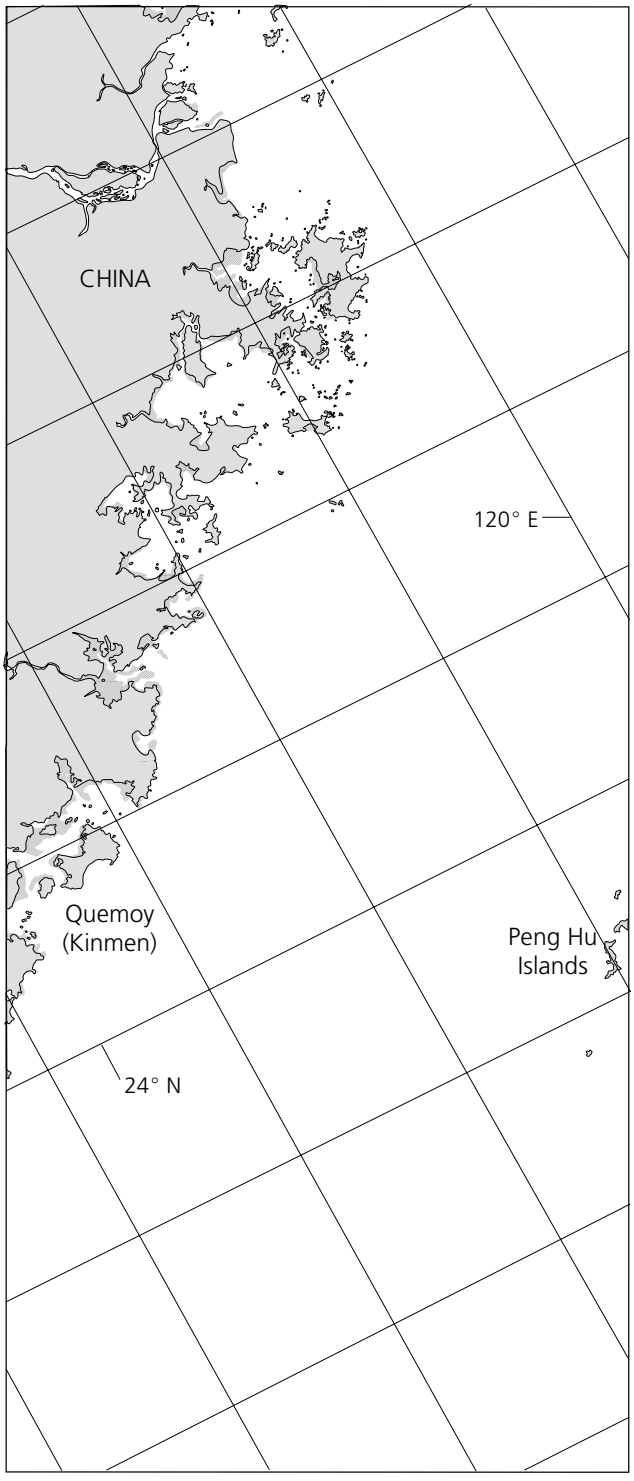
Sea Lift and Taiwan Strait Transit

Of the lengthy lists of combat tasks that would face the invaders, two critical ones stand out: moving the requisite multitudes to the battlefield and, once on the beach, achieving superiority at some point. Many analysts claim that both are presently beyond China's capabilities.

China has a large merchant fleet, with an enormous capacity for personnel and cargo. Its fifty naval amphibious ships and between two hundred and 350 landing craft, however, would be utterly unable to carry the entire combined-arms force.[13] It would be logical to devote military amphibious vessels exclusively to heavy weapons like tanks and artillery rather than personnel; in any case, bow ramps are just about the only way to get this bulky hardware ashore in an assault. If the amphibious ships were devoted entirely to tanks and the landing craft to artillery, more than 250 tanks and almost seven hundred pieces could be put ashore in one wave.[14] This is not impressive for a landing force that could number over a hundred divisions—a single U.S. armored division has more tanks, and the artillery would outfit only about ten U.S. divisions; still, specialized amphibious craft could rapidly shuttle tanks and artillery ashore. In any case, it has always been difficult, for any nation, to get tanks and artillery ashore. That is why heavy reliance upon infantry, naval gunfire, and close air support is a hallmark of amphibious operations everywhere.

Meanwhile, the Chinese merchant fleet could be transporting upward of two million troops, in regular passenger ships and on cargo vessels temporarily adapted for troops—but without excruciating effort to get them all on board.[15] With the present port capacity of China's southeastern coast, embarkation of troops would be time-consuming. A choice would have to be made between shuttling relatively small waves of troops to the beach and forcing early-loading ships to hover offshore, vulnerable to attack, while the remaining vessels queue up for pier space. Despite frenzied port construction over the last decade or so, the ports from Shanghai to Hong Kong could accommodate sufficient shipping to load only about two hundred thousand troops at any one time. This is only 10–13 percent of the possible force.[16] Still, upgrading port capacity—like building airfields—would not exceed China's competence, if it were willing to reallocate resources and postpone civilian-sector endeavors.

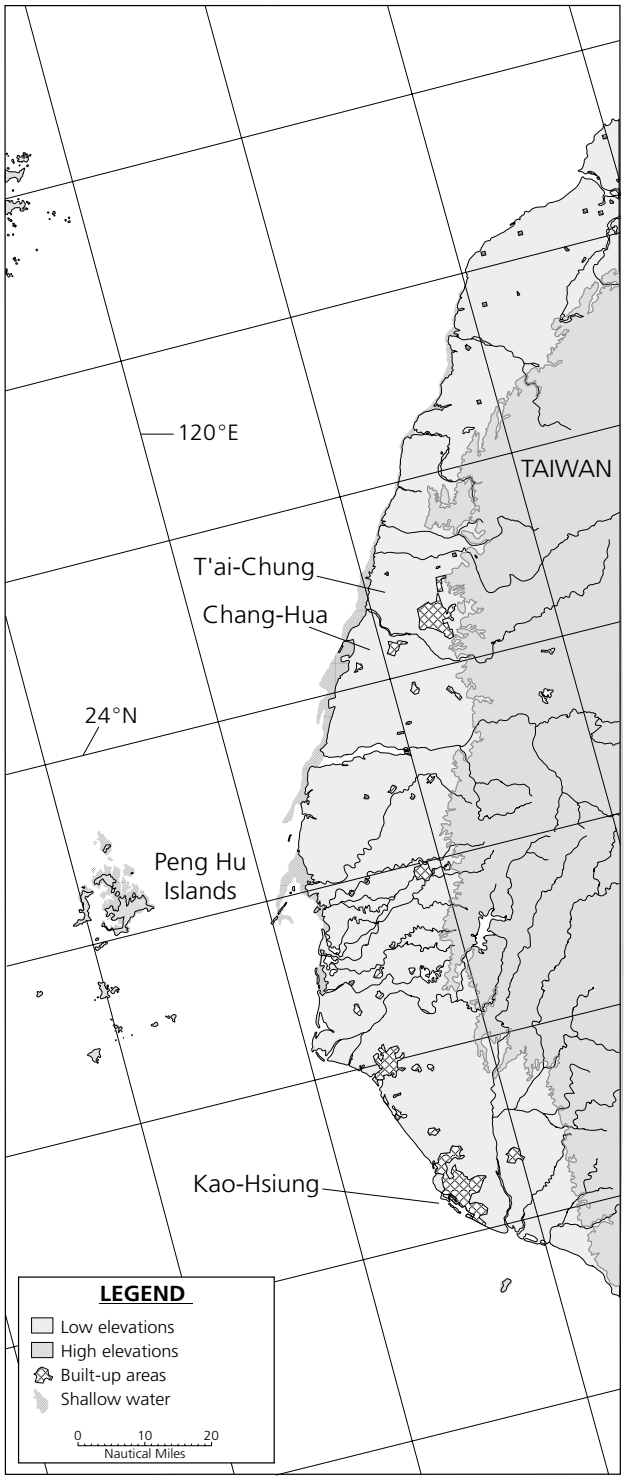
The difficult part of transporting troops, once successfully embarked, to their objectives would be transferring them from large ships to small vessels able to run aground close enough to the shore to disembark personnel in shallow water.



Most "China hands" agree that China has in excess of a hundred thousand small seagoing fishing vessels. If each one carried thirty troops—a conservative assumption—the last few tens of miles, only half of them would be required to land 1.5 million troops.[17]

U.S. amphibious doctrine puts a great deal of emphasis on the organization of the ship-to-shore movement of the assault landing force. The Chinese would experience great difficulty in this respect, using civilian craft, and so many of them. Amphibious doctrine calls for meticulous "reverse embarkation," or "combat loading," of transports—loading last everything that will be needed first, so that it will be readily accessible in the holds; keeping all boats carrying particular ground units near each other; and forming painstakingly sequenced "boat groups" within "boat waves," making up still larger "flotillas." The principal concern is to preserve the tactical organization of army units. Without this coherence, landed in isolated, intermixed groups, the troops would become a mob, ripe for slaughter.

A modern innovation in navigation might help the Chinese orchestrate the tens of thousands of small boats: Global Positioning System receivers could help each craft find its exact destination.[18] Soldiers could, therefore, be



reasonably certain of joining their larger units in a short time. Employing this technology could make the Chinese doctrinal innovators in amphibious warfare.[19]

Whatever new technology the Chinese may adopt, however, the operational key is the enormous "lift" potential of their commercial fleets. This capacity has too frequently been written off, and its omission unrealistically diminishes China's ability to realize its numerical advantage on Taiwan's doorstep.

Beach Landing and Assault

Normally, in frontal attacks the defenders have the upper hand. However, in the amphibious situation, certain advantages accrue to the offensive. It has the initiative; the landing force commander chooses the time of attack and, with the inherent flexibility of movement upon the open sea, the exact location. In this case, Taiwan would surely know that the Chinese were coming, but not precisely when or where; the attacker would have, almost automatically, the advantage of tactical surprise.

The Taiwanese have nearly two million people in their armed forces, including reserves, which at first glance makes the two sides seem equal. However, uncertainty would compel Taiwan to spread its force over the 250-mile coastline

opposite China. Its surveillance and warning system would likely be degraded, if not saturated, by the vast number of contacts in a strait clogged with vessels. The Chinese presumably would deliberately overload Taiwan's surveillance sensors rather than try to evade them.

Furthermore, even if somehow Taiwan managed to evacuate and bring home all five divisions presently stationed on offshore islands, its twenty-one divisions (including marines and seven divisions of reserves, but excluding two divisions of armor and mechanized forces) would have to defend frontages of almost thirteen miles each. That would be a considerable challenge: in June 1944 the German forces holding the Normandy beaches, with frontages of less than ten miles per division, lost the beachhead to a hundred thousand Allied troops in under forty-eight hours.

With the at least theoretical capability of moving almost two million soldiers in one "lift," the Chinese would probably be able to mass sufficient infantry somewhere to overwhelm the defenders. Once ashore, the sheer size of China's total force, given air and sea superiority, would make it difficult for the Taiwanese to counterattack effectively. It is unlikely they could entirely eliminate a beachhead—even with their qualitatively superior armored forces. To recall Normandy again, the German army's inability to move armor against the beaches because of Allied air superiority teaches an important lesson.

Nonetheless, the Chinese would find the number of tasks in a final assault, and the complexity of integrating them, daunting. In particular, they would have to sustain air superiority over an extended period. Moreover, the commander ashore would have to organize an airmobile theater reserve, a force combining parachute and heliborne units. Just to get ashore, the landing force commanders would have to improvise extensively to deal with the inhospitable Taiwanese west coast, which is mostly mud flats, with significant tidal ranges. The Chinese would also have to contend with two monsoon seasons, from August to September and from November to April; it would be restricted to two "windows" of attack, from May to July and the month of October. Still, such impediments did not thwart U.S. amphibious forces at Inchon during the Korean War; nor did coral reefs and an extremely low tide prevent the seizure of Tarawa in World War II.

LIKELIHOOD OF AN INVASION

No prudent military planner can dismiss the possibility of a successful invasion of Taiwan. The numerical advantages of the Chinese in almost every relevant military category are unambiguous and overwhelming. Although it might be years before any Chinese soldier sets foot on Taiwan itself, the early stages of a phased offensive could begin earlier than expected—that is, long before the year

2005, widely described as the soonest that China could project force beyond its borders.

There are, of course, a number of big "ifs." *If* the Chinese air force failed to gain air superiority, or *if* the navy could not get millions of troops afloat, an attack would halt even before embarkation. Well before any attempt, *if* China did not expand its airfield capacity near the coast facing Taiwan, it could not even contemplate air superiority; similarly, *if* China had not significantly expanded its port capacity in the same region, it could not use effectively the sea lift to be requisitioned from the merchant marine. Sea control would be contingent on the submarine force's ability to sweep and hold a security corridor from shore to shore; *if* that corridor were breached, the assault forces would most likely be destroyed en route. *If,* having crossed, the assault waves could not maintain coherence among the great mass of men and materiel, the defenders would prevail.

However, a determined government in Beijing may be able to overcome these obstacles; it would need neither technological magic, super-weapons, spectacular leaps in weapons production, nor even a foreign benefactor. It would need a wrenching reallocation of resources. A nation's willingness to make great sacrifices cannot be assumed, but a sound military analysis cannot ignore the possibility. Underestimating the determination of seemingly overmatched Asian powers has been a common American failing since 1950.

Another *if* is the delicate cross-strait military balance. Any dramatic tilt toward Taiwan's favor in the rough military equivalence—all factors considered—that currently exists could limit Chinese offensives to Quemoy and other small islands near the mainland. The new arms sales requisite for such a shift would hardly dismay the Pentagon. However, Sino-American relations would surely suffer, and as some analysts have pointed out, such an increase in arms shipments could backfire, precipitating a preemptive strike before Taiwan had time to assimilate the new equipment. The authorities in Taipei, in any case, might choose to produce indigenously, or procure from other nations, whatever arms could protect them from a cross-strait invasion.

The negative "ifs," however, are balanced by a number of important "coulds." The People's Liberation Army *could* commandeer an enormous range of civilian assets that would contribute directly to its capabilities. China *could* transport millions of personnel across the strait, choked with fifteen hundred ships and tens of thousands of small vessels. Its air force *could* deliver ordnance with over three thousand jet aircraft (though not in a single wave). A landing force *could* overwhelm or outlast the Taiwanese army once it was firmly ashore.

Most significantly, the Chinese *could* phase an invasion over time to gain operational advantages, maneuvering successively against Taiwan's untenable offshore islands. Such a multistaged campaign would maximize China's inherent

capacity to sustain a war of attrition, and it might well produce in effect a defeat in detail, should Taiwan defend each position. Even if Taiwan chose not to fight for every foot of ground, the advantages of an extended time frame would seem to accrue to China.

The world will not know which camp of contending analysts will win this debate unless China actually attacks Taiwan. We are confident that those who continue to ignore the significance of airfields, submarines, commercial sea lift, and sequential campaigning will not have prepared the nation for the worst-case contingency.

NOTES

1. For example, see Stephen J. Yates, "Why Taiwan's Security Needs to Be Enhanced," Heritage Foundation Executive Memorandum 632, 25 October 1999; Edward Timperlake and William C. Triplett II, *Red Dragon Rising: Communist China's Military Threat to America* (Washington, D.C.: Regnery, 1999); Barbara Slavin and Steven Komarow, "China's New Russian Destroyer Raises Concerns for Taiwan: Current Arms Deliveries Could Play Havoc with U.S. Strategic Equation," *Detroit News,* 21 November 1999, p. A21; and Bill Gertz, "China Targets Taiwan with 2nd Missile Base: Can Now Hit All Military Posts on the Island, Pentagon Says," *Washington Times,* 8 December 1999, p. 1.
2. David Shambaugh, "A Matter of Time: Taiwan's Eroding Military Advantage," *Washington Quarterly,* Spring 2000, p. 119.
3. For example, see Michael O'Hanlon, "Why China Cannot Conquer Taiwan," *International Security,* Fall 2000; Russell D. Howard, "The Chinese People's Liberation Army: 'Short Arms and Slow Legs,'" U.S. Air Force Institute for National Strategic Studies [hereafter INSS], Occasional Paper 28, Regional Security Series, September 1999; Denny Roy, "Tensions in the Taiwan Strait," *Survival,* Spring 2000, pp. 76–96; James H. Nolt, "U.S.-China-Taiwan Military Relations," *Foreign Policy in Focus,* World Policy Institute, April 2000; and David A. Shlapak, David T. Orletsky, and Barry A. Wilson, *Dire Strait? Military Aspects of the China-Taiwan Confrontation and Options for U.S. Policy* (Santa Barbara, Calif.: RAND, 2000). Jianxiang Bi, "Managing Taiwan Operations in the Twenty-first Century," *Naval War College Review,* Autumn 1999, pp. 30–58, would be a variant, arguing that the PRC is poorly prepared but might feel obliged to try anyway.
4. U.S. Defense Dept., *Joint Doctrine for Amphibious Operations,* Joint Publication 3-02 (Washington, D.C.: Joint Staff, 8 October 1992).
5. John Wilson Lewis and Xue Litai, *China Builds the Bomb* (Stanford, Calif.: Stanford Univ. Press, 1988), p. 242. China has announced that its no-first-use policy applies to Taiwan, that it will not use nuclear weapons against other Chinese, including Taiwanese. Eric Lin, "Face-Off: Maintaining the ROC-PRC Military Balance," trans. Phil Newell, *Sinorama,* October 1998.
6. Theodore L. Gatchel [Col., USMC (Ret.)], *At the Water's Edge* (Annapolis, Md.: Naval Institute Press, 1996), p. 207.
7. Unclassified sources vary widely on the Chinese air force's and naval aviation's total fighter and attack aircraft. Sources include: International Institute for Strategic Studies [hereafter IISS], *The Military Balance, 2000–2001* (London: Oxford Univ. Press, 2000); *Jane's Sentinel Security Assessment, China and Northeast Asia* (Coulsdon, Surrey, U.K.: Jane's Information Group, 1999), pp. 89, 100, 504; and James Mulvenon, ed., *China, Facts & Figures, Annual Handbook* (Gulf Breeze, Fla.: Academic International Press, 1998), vol. 23, pp. 87–8. Reported totals range from a high of almost six thousand "warplanes" to a low of 2,800 fighter/attack

aircraft. The U.S. Department of Defense's total of 4,300 tactical fighters—most of which are characterized as obsolete—is a reasonable benchmark. See U.S. Defense Dept., *Annual Report on the Military Power of the People's Republic of China,* 22 June 2000, p. 18, available on the World Wide Web: http://www.defenselink.mil/news/Jun2000/china06222000.htm (accessed 18 March 2001).

8. See O'Hanlon, pp. 51–86; and Shlapak et al. O'Hanlon and Shlapak and his colleagues are among the small number of analysts who acknowledge that China might achieve air superiority but ultimately dismiss the possibility—perhaps too readily.

9. Vernon Loeb, "China vs. Taiwan," *Washington Post,* 17 May 2000, p. A25; and Agence France Presse, "U.S. Scientists Downgrade China's Air Power Capability versus Taiwan," 13 May 2000.

10. Assessments are that China is deploying fifty to a hundred short-range ballistic missiles (SRBMs) per year along the coast across from Taiwan. Estimates of the currently deployed SRBMs range from 150 to three hundred. China would need up to 1,575 SRBMs to incapacitate Taiwan's sixty-three airstrips. Our conservative calculations presume a two-hundred-meter circular-error-probable accuracy; a 95 percent probability that an SRBM will successfully complete its flight; a minimum operating-strip of length 1,525 meters; and 95 percent confidence of damaging an airstrip. Even if China had this many SRBMs and used them all against Taiwan's airstrips, it would shut them down for only as long as Taiwan took to repair them—a matter of hours for any one strip. Global Positioning System–guided missiles (which China might develop) could cut the number of required SRBMs in half.

11. John Stillian and David T. Orletsky, *Airbase Vulnerability to Conventional Cruise and Ballistic Missile Attacks* (Santa Barbara, Calif.: RAND, 1999); Christopher F. Foss, "China Gets Smerch MRS Technology," *Jane's Defence Weekly,* 29 March 2000, p. 20.

12. U.S. Defense Dept., *Annual Report,* pp. 19–20.

13. IISS, *The Military Balance 1999–2000* (London: Oxford Univ. Press, 1999), pp. 187–8; A. D. Baker III, *The Naval Institute Guide to Combat Fleets of the World, 1998–1999: Their Ships, Aircraft, and Systems* (Annapolis, Md.: Naval Institute Press, 1998); *Jane's Fighting Ships, 1996–1997* (Coulsdon, Surrey, U.K.: Jane's Publishing Group, 1996), pp. 1122–3; and U.S. Defense Dept., *Annual Report,* p. 19. Other studies indicate that military amphibious craft could transport only one or two divisions. See, for example, Roy, p. 82.

14. Robert Sae-Liu, "China Revives *Yuting*-Class Ship Programme," *Jane's Defence Weekly,* 14 June 2000, p. 37.

15. Central Intelligence Agency, *The World Factbook, 1999,* available on the World Wide Web: http://www.cia.gov/cia/publications/factbook/ch.html (accessed 15 March 2001); and *Naval Institute Guide, 1998–1999.* The *World Factbook* gives the total tonnage of the Chinese merchant fleet and lists its vessels by type. This information can be used, with a conservative assumption that a vessel can carry approximately a hundred personnel per thousand deadweight tons, to calculate that 82 percent of the fleet's cargo/transport type vessels (totaling 20.3 million tons) can transport two million troops. The Naval Institute reference provides specific cases—one of them a 2,510-ton Taiwanese troop transport that carries five hundred troops, or two hundred troops per thousand deadweight tons—confirming the rough accuracy of the base assumption, since this vessel, designed to carry troops, would logically carry more than would a ship designed to haul cargo. It does not stretch belief to estimate that a cargo vessel of similar tonnage could temporarily accommodate half as many personnel on deck and in adapted cargo spaces.

16. Hong Kong Port and Maritime Board, *Chinese Ports: 1996* (Hong Kong: Marine Department of Hong Kong Special Administrative Region, available only on the World Wide Web: http://www.info.gov.hk/mardep/chinport/chinport.htm (accessed 18 March 2001).

17. Frank O. Hough [Lt. Col., USMCR], Verle E. Ludwig [Maj., USMC], and Henry I. Shaw, Jr., *Pearl Harbor to Guadalcanal, History of the U.S. Marine Corps Operations in World War II* (Washington, D.C.: GPO, 1958), pp. 23–34. A considerable number of analysts discount any capability to land troops in small civilian vessels. While the classic slab-sided, shallow-draft, bow-ramp landing craft of pre–World War II design by Andrew

Higgins is clearly superior to the standard keeled fishing craft, there is little evidence to indicate that commercial vessels would not suffice. In fact, were it not for Higgins's persistence, the U.S. Navy might well have entered World War II with what was called the "venerable fishing craft," which remained under consideration until 1936.

18. "China's military-backed industries also have entered into joint ventures with foreign firms to produce GPS receivers, which may find their way to military weapons." U.S. Defense Dept., *Annual Report,* 22 June 2000, p. 13.

19. Other innovations that might improve the effectiveness of Chinese landing forces are offshore oil drilling platforms and unmanned aerial vehicles (UAVs). Oil platforms could be towed into the shallows around the Peng Hus and off the main island and then sunk upright, out of range of artillery. They might prove invaluable in transshipping operations; some closer in could provide firing platforms in the assault phase. UAVs returning real-time images could improve notoriously unreliable battlefield intelligence.

DEFENDING TAIWAN, AND WHY IT MATTERS

Chris Rahman

The unresolved political status of Taiwan has over the past decade assumed a renewed urgency, to the extent that conflict across the Taiwan Strait has overtaken that on the Korean Peninsula as the most likely war scenario in East Asia. The Taiwanese democratization process combined with regime weakness and a process of domestic change within China itself to create the conditions for the deterioration of cross-strait relations that led to Beijing's 1995–96 series of military exercises, culminating in the temporary, de facto blockade of Taiwan's two major ports as a result of China's ballistic missile tests in March 1996. Since that time cross-strait tensions have hardly abated, with the election in 2000 of the (at one time) openly pro-independence presidential candidate of the Democratic Progressive Party, Chen Shui-bian. Underlying the pedantry over definitions of "one China" and other impediments to meaningful dialogue between Beijing and Taipei, however, is a more serious problem. The problem, simply stated, is that the future political status of Taiwan itself is growing in significance as a vital national interest for other states in the context of the expansion of China's power and influence throughout maritime East Asia.

The status of Taiwan has also been the primary irritant affecting Sino-U.S. relations, a point placed in stark relief by the 1996 missile crisis, when the United States deployed two carrier battle groups near the island, and by incessant warnings from Beijing over foreign interference in China's "domestic affairs" ever since. More recently, the 1 April 2001 EP-3 surveillance plane incident prompted repeated Chinese demands for the cessation of U.S. surveillance flights near Chinese territory.[1]

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The United States has had to balance its relations with China both to avoid actual hostilities on one hand, and to satisfy popular domestic opinion and uphold its obligation to assist Taiwan to defend itself from Chinese aggression, as set out in the Taiwan Relations Act of 1979, on the other.[2] In addition to these immediate concerns are a range of factors that further complicate American policy on Taiwan. These include the positions and security interests of America's key regional allies; the responsibility necessarily shouldered by the world's sole superpower to uphold liberal values in the international system; and the uncomfortable possibility that Taiwan's continued geopolitical separation from the Chinese mainland now represents a vital strategic value for U.S. (and allied) interests in the western Pacific.

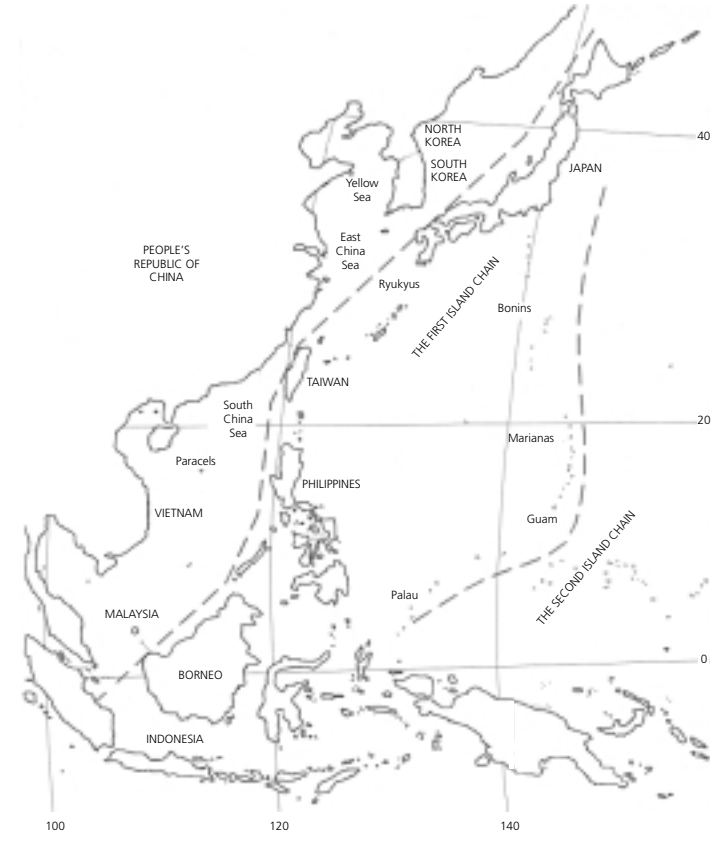
Taiwanese democratization and the missile crisis have been well documented.[3] This article will assess instead the potential geopolitical significance of the island of Taiwan in the new East Asian security environment. Initially, this article will address briefly the question of how Taiwan is important, and might become more so, in wider political, economic, and ethical perspectives, before providing a detailed examination of the island's potential strategic significance in the context of the interests of the three major players in East Asian security—China, Japan, and the United States. Finding that there are genuinely irreconcilable interests at play in maritime East Asia, the article will suggest that Taiwan is becoming an increasingly urgent problem for regional security, not due simply to the potential for near-term armed conflict across the Taiwan Strait but also, and perhaps more fundamentally, to the rather more perplexing (for diplomats and strategists alike) consideration that over the longer term Taiwan will hold ever greater geostrategic value in the unfolding competition over political, economic, strategic, and even moral leadership in East Asia between China and a loose American maritime coalition. This article will also address some of the operational considerations involved in deterring China and defending Taiwan, including potential shortcomings of U.S. strategy and military posture in the region.

WHY TAIWAN MAY MATTER

Taiwan's democratization process has produced the world's only Chinese democracy. The legitimacy of Taiwan's bid for international recognition as a sovereign entity was considerably boosted in the eyes of Western popular opinion by its rapid democratization under the presidency of Lee Teng-hui, and democratization has increased the domestic political incentives in many democratic countries (especially in the United States) to protect Taiwan should another crisis erupt across the Taiwan Strait. Although Taiwanese public opinion remains divided over the details of the island's relationship with China—a

fact well understood by President Chen—it is unlikely that the Taiwanese would ever accept unification on China's terms.[4] Thus, Taiwan's successful democratization arguably creates an ethical responsibility for the United States (and to a lesser extent other liberal states) to protect that democracy and its vibrant market economy, a responsibility based less on idealistic grounds than on "enlightened self-interest" in maintaining the U.S.-dominated liberal international political order.[5] The ethical consideration becomes yet more pronounced if one considers the tenuousness of China's sovereignty claim. Taiwan's history is a complex one, in which inhabitants of the island were often ruled by outside powers, yet Taiwan has never been successfully integrated, politically, with mainland China.[6]

Taiwan is also significant for economic and social reasons. Whilst the importance of the China trade for many states has been often overstated—mostly in everlasting anticipation of future profits and markets—China's major trading partners in fact typically do almost as much business, or even more, by value, with Taiwan.[7] Moreover, the Taiwanese port of Kaohsiung is one of a small number of regional hub ports that increasingly dominate seaborne trade in Asia.[8] Finally, the Taiwanese people are well educated, with very strong social as well as commercial links to the outside world.



A third reason why Taiwan might be considered important is the political symbolism involved in the Taiwan question. Aside from ethical concerns, a failure by the United States to support Taiwan in a crisis situation with China would symbolize willingness to defer to China in regional matters, amounting to a reordering of great-power influence in East Asia. More importantly in the immediate term, such a failure would demonstrate to Japan, South Korea, and Australia

that Washington is an unreliable ally, and to the Southeast Asians that it is an unreliable protector-stabilizer in the western Pacific. The problem would be most acute for Japan, but even the Koreans, who follow a generally pro-Beijing line over Taiwan, would most likely view American reluctance in a Taiwan Strait conflict as demonstrating U.S. unreliability as a protector. Moreover, the reputation of the United States would suffer the world over, which in turn would adversely affect the working of so-called general deterrence in other conflict-prone regions.[9]

Finally, and most importantly, Taiwan matters strategically. A war over Taiwan would affect all states in the region and many beyond. Even in the absence of conflict, however, Taiwan is taking on increased relevance to the shape of the emerging post–Cold War era. All states that rely upon either Asian sea-lanes or continued U.S. presence in support of strategic order (thus avoiding Chinese regional hegemony) have important interests at stake in the future of Taiwan, even if some do not admit it. This is not an argument that Taiwan represents some magic strategic key to control East Asia. But a change in its geopolitical status, even a peaceful one, in favour of the mainland may be enough to alter the region's correlation of forces, thereby damaging the regional stability underwritten by the United States.

THE STRATEGIC CONTEXT: CHINA'S MARITIME EXPANSION

China's push into regional seas provides the strategic context for the increased profile of Taiwan in East Asia. This maritime expansion is taking economic, territorial, and strategic forms. Economically, the coastal cities and provinces dominate the new Chinese economy, providing windows to international markets. There has been a heavy emphasis upon the role of marine industries for continued economic growth; these industries already employ over four million people. According to its marine policy white paper of May 1998, China must "take exploitation and protection of the ocean as a long-term strategic task before it can achieve the sustainable development of its national economy."[10] Amongst the most important of those industries are shipping, shipbuilding, fishing, and offshore oil and gas exploration and exploitation.

Offshore oil production alone was forecast by Western sources to account for 7 percent of the national total in 2000, up from only 0.9 percent in 1990.[11] The value of marine industry production has increased 20 percent per annum since 1990, according to a Chinese report, accounting for 4 percent of gross domestic product in both 1996 and 1997, with a targeted increase to 5 percent of GDP sought for 2000 (for which results are not yet available). Beijing aims to double that figure over the next decade, so that marine industry production will account for 10 percent of GDP by 2010, an ambitious goal that will require the

annual growth rate of China's marine economy to continue to exceed the expected high growth rate of GDP.[12]

To fulfil such ambitious production goals, China has placed considerable importance on utilizing the resources of the South China Sea, especially potential oil and gas reserves, thus linking those resources to national economic development.[13] Oil is a strategic resource of which China has been a net importer since 1993, increasing both the salience of China's territorial claims in the South and East China Seas and the importance of the sea lines of communication that connect the Chinese economy to the oilfields of the Persian Gulf. Disputes over territorial features in the South China Sea, including Chinese occupation of the Paracel Islands and some features (some mere rocky outcrops, not always visible above water) of the Spratly Islands, fuel concerns over China's intentions and ability to project influence throughout Southeast Asia, whilst the Senkaku (Diaoyu) Islands dispute continues to sour Sino-Japanese relations. Protection of its economic interests and pursuit of its contested territorial claims have nevertheless provided China with rationales for a concerted expansion of its maritime strategic force structure.

Within the overall context of Chinese military modernization, the People's Liberation Army Navy (PLAN) has received a relative boost in emphasis compared to the historical norm, although the nuclear deterrent, rocket, and air forces still take precedence over naval capabilities.[14] Nevertheless, the new interest in the maritime environment is giving rise to potentially profound changes to Chinese strategic perceptions, with concomitant effects on military strategy, doctrine, and weapon procurement. Those leading the charge into the maritime environment have explicitly promoted, both rhetorically and in practice, the need for imparting "maritime sense" to the Chinese people, thus linking the restoration of China's "honor" and place in the world (that is, Chinese nationalism and, implicitly, irredentism) and its strategic ambitions to the growth of the marine economy and naval expansion.[15]

The enhanced relevance of maritime factors for China's national security led during the 1980s, under the patronage of Admiral Liu Huaqing, to the transformation of the existing strategy of "offshore active defense." Originally referring only to the defense of coastal waters, it now envisages an extended defence-in-depth encompassing the entire ocean space within the "first island chain"—running from the Kuriles through Japan, the Ryukyus, Taiwan, and the Philippines to the Indonesian archipelago (thus including the entire expanse of the South and East China Seas). Liu has also used "offshore" to indicate all waters within the "second island chain" (stretching from the Bonins through the Marianas and Guam to the Palau island group).[16] The adoption of an extended area bias for national defence is linked to the evolution of the defence doctrine of

"people's war under modern conditions" during the Deng era—a doctrine that even in the late 1970s envisaged a major expansion of China's maritime capabilities, producing by the late 1980s substantial (if not by the standards of oceangoing navies) improvements in China's naval force structure.[17] The further evolution of post-Deng military doctrine to "modern war under high-tech conditions" places even greater emphasis upon defensive depth. Contemporary doctrine requires the projection of power for offensive operations at ever greater distances from the mainland in order to defend not only the Chinese coast but also its maritime territorial claims and interests.[18] Further, it recognizes that external strategic threats to China's national interests will almost certainly emanate from across the sea. These factors have only become more prominent in Chinese thinking as the Taiwan issue has assumed greater intensity over the last decade.

If improvements to the Chinese navy have been significant relative to its capabilities less than a decade ago, they have been limited by resource constraints and the large technological hurdles presented by the military standards of potential adversaries. New locally designed and built platforms like the Luhai-class guided missile destroyers (DDGs) and Song-class conventional submarines (SSKs) are being placed in service at a very slow pace. These vessels will probably provide the backbone of the future naval force structure, but they are already outdated compared to Western systems; surface combatants lack such basic capabilities as modern air defense weaponry, for example.[19] To make up the shortfall in capabilities China has imported limited numbers of Russian units, most notably four Kilo-class SSKs and two *Sovremenny*-class DDGs (with another two secondhand ships likely to follow) armed with lethal SS-N-22 Sunburn (Moskit) antiship cruise missiles.[20] The Chinese air force has also received Su-27 Flanker combat aircraft from Russia and is currently introducing advanced multirole Su-30MKK (Flanker ground-attack variant) fighters into service, as well as air-to-air refuelling aircraft and, prospectively, A50E airborne early warning aircraft.[21] Question marks remain, however, over the competence and training of aircrews; the ability to control and support offensive operations;[22] and the ability to integrate naval and air force assets and doctrine in joint maritime operations.[23]

The much-debated and elusive aircraft carrier has yet to appear, although there is some evidence that construction of the first of a new class of indigenous carriers may soon begin.[24] Even so, it will take many years, if not decades, for China to master first the technical and technological prerequisites to designing, constructing, and maintaining such complex and costly platforms, and then the art of operating them, and finally the technique of employing carriers as instruments of military strategy.[25] China has purchased several old carriers for

scrapping, including HMAS *Melbourne;* three Russian *Kiev*-class carriers—*Kiev*, *Minsk,* and *Novorossiysk* (the latter two via South Korea); and the unfinished *Varyag* from Ukraine.[26] These should provide ample opportunities to study and copy design elements. Logically enough, Beijing seems to favour the Russian template for carrier design and employment, which reflects Chinese interest in the Soviet strategy of sea denial against enemy (U.S.) fleets at considerable distances from territorial waters.[27] According to one analysis, a Chinese carrier would likely take the form of a type of heavy through-deck guided missile cruiser in the Russian tradition, incorporating a ski jump and carrying approximately twenty-four combat aircraft.[28]

Much of the naval and air force expansion during the late 1980s to the early 1990s can be linked to the growth of China's maritime interests and to its territorial disputes in the South China Sea.[29] However, since the mid-1990s the immediate driving force behind force structure improvements has been without doubt the Taiwan issue—although, as has often been noted, enhanced capabilities developed initially to bring Taiwan into line will also provide the basis for projecting power into the South China Sea and for contesting sea control within at least the first island chain, if and when that ambition is operationalized. However, perhaps more significant than conventional force improvements has been, in the words of one Pentagon China expert, the strategically calculated development of other, less traditional capabilities and doctrines,

> designed to enable targeting of adversarial strategic and operational centers of gravity, and defend its own, in order to pursue limited political objectives with an asymmetrical economy of force. In other words, the [People's Liberation Army], as part of its long-range regional security strategy, is attempting to develop an ability to target an enemy's forward-based command, control, communications, computers, and intelligence (C4I) nodes, airbases, aircraft carriers and sea-based C2 [command and control] platforms, as well as critical nodes in space.[30]

The capabilities being developed include ballistic and cruise missiles (both antiship and land attack); information warfare (including land, sea, air, and space-based acquisition capabilities, information attack and countermeasures, and information protection/denial); and integrated air defence (including offensive operational capabilities) and counterspace systems.[31]

Quite clearly, those "limited political objectives" are increasingly Taiwan-centered; the Chinese navy's development into a "formidable cruise missile force" is designed for operations against Taiwan;[32] China's deployment of CSS-6 (M-9/DF-15) and CSS-7 (M-11/DF-11) short-range ballistic missiles opposite Taiwan continues apace, with reportedly over 350 missiles already deployed.[33] The Pentagon also estimates that China's missile deployments by 2005 will constitute

a significant strategic advantage against which Taiwan may have little defense.[34] China has also mounted a concerted diplomatic attack on America's development of missile defence systems, especially regional systems that might involve either Taiwan or Japan, or a national missile defence system that might negate China's small long-range nuclear deterrent force.[35]

If Taiwan is indeed the immediate strategic focus of the People's Liberation Army, an important factor arises that is often neglected—the extent to which the fate of the island of Taiwan itself may determine China's future ability to prosecute its regional security and sea control ambitions.

BEAUTIFUL ISLAND, UGLY NEIGHBORHOOD

The Portuguese, who became in 1590 the first European visitors to Taiwan, called it "Ihla Formosa"—the "beautiful island." The regional strategic issues relating to the island today are considerably less appealing than when the Portuguese made their discovery over four hundred years ago.

Taiwan in China's Strategic Thinking

There is a real, if exaggerated, fear in Beijing that should a formal Taiwanese declaration of independence go unpunished, restive regions of China may also try to break away. Separatist tendencies within China cannot, however, easily be linked to Taiwan; such regions each involve dynamics and circumstances that are unrelated to the Taiwan issue. Taiwan is qualitatively different. Tibet, Xinjiang, and Inner Mongolia are, after all, constituent parts of the People's Republic of China; Taiwan, quite clearly, is not. This is the fundamental reality of cross-strait relations, even if Chinese propaganda and the dissembling habits of international diplomatic practice suggest otherwise.

The latent crisis of political legitimacy within China has been alleviated in part by national economic dynamism and in part by the promotion of Chinese nationalism. Yet relying upon sustained high rates of growth in an economy with significant structural problems is fraught with risk, leading to the conclusion that the encouragement of nationalist sentiment will be increasingly important to the political legitimacy of the Chinese Communist Party.[36] In this respect Taiwan's democratic evolution, whilst posing a challenge to the mainland regime, paradoxically also provides a focal point for the nationalist propaganda that seeks to prop up the party. Nevertheless, threats issued to deter formal Taiwanese independence not only legitimize the mainland regime but may be vital to the political survival of the regime. Having placed such a premium on unification, to allow Taiwan to break free formally might lead to the downfall of the current Chinese leadership, possibly even the party itself. At the very least, Army support for the regime would waver.[37] There is a general

consensus over the Taiwan issue in Beijing, and the domestic political ramifications of "losing" the island in a limited war across the strait could be severe. The question remains: would the Chinese Communist Party allow a conflict in which its survival was at stake to remain limited—or in its terminology, "restricted"?[38]

The adoption of a nationalist agenda also helps to maintain People's Liberation Army support for a regime no longer as intimately connected to the armed forces as was the case in the past.[39] The ambitions and strategic worldview of the Army thence become fundamental to Taiwan's newfound geopolitical significance.[40] If preventing a formal split between the mainland and Taiwan is a primary consideration, there is reason to suggest that China's military places substantial strategic emphasis on "recovering" the island of Taiwan also to facilitate its own regional (geo)political ambitions, which are expanding as Chinese power itself grows.

Taiwan's physical position complicates free access to the Pacific from the mainland. The island does not block that access entirely, but its possession by a maritime power inimical to China might threaten both China and China's sea-lanes, both eastward to the Pacific and down through the South China Sea. On the other hand, should Taiwan fall into Beijing's hands, China would be better able to prosecute sea-denial operations and sea-lane disruption against the other Northeast Asian states and their American ally, should the need arise. Accordingly, the "recovery" of Taiwan represents part of the rationale for the pursuit of offshore active defense and greater defensive depth; in the longer term, the island would play a leading role in the execution of that very strategy. Chinese strategists well understand the relevance of the island to the accomplishment of China's wider maritime goals and the development of a successful national maritime strategy, as reflected by the thoughts of two PLAN officers: "China is semiconcealed by the first island chain. If it wants to prosper, it has to advance into the Pacific, in which China's future lies. Taiwan, facing the Pacific in the east, is the only unobstructed exit for China to move into the ocean. If this gateway is opened for China, then it becomes much easier for China to manoeuvre in the West Pacific."[41]

Implicit in this statement is the problematic role of Japan in Chinese strategy; it is specifically the Japanese home islands, the Ryukyus, and the disputed Senkakus that, together with Taiwan, partly conceal China. Japanese geography and sea power, therefore, collectively pose an inherent obstacle to Chinese expansion into the Pacific as long as Taiwan remains free of mainland control. Further, the U.S. Navy, Taiwan's "defender of last resort," continues to represent the greatest medium-term threat to the Chinese navy's Taiwan-centered ambitions for greater defensive depth and transformation into a major sea power in the western Pacific, perhaps beyond.

Taiwan, therefore, matters a great deal to China, both politically and strategically. But how significant is it for other actors in strategic terms? Any attempt to answer that question must take note of two fundamental aspects of regional security: Taiwan's physical location astride regional sea lines of communication, and the (already documented) growth of China's maritime power. In these contexts, Taiwan matters to Japan.

Japan: The "Third Man" in the Taiwan Dispute

Japan is, like Taiwan, an insular trading democracy with heavy dependence upon imported resources, especially energy, most of which arrive by sea-lanes adjacent to Taiwan; accordingly, Japan feels threatened by Chinese expansionary pressure into East Asian seas. Japan's China problem is exacerbated by an understandable Chinese dismay over the absence of formal contrition by Tokyo for its past aggression against the Asian mainland. The Senkaku Islands dispute has also increased Chinese nationalist and anti-Japanese feeling; some anti-Japanese protests may indeed have been spontaneous, as was reputedly the case during a flare-up of the Senkaku dispute in 1996.[42] However, it must also be noted that Beijing has attempted to manipulate domestic opinion for its own ends. Also, despite Japan's frustrating attitude toward its past misdeeds, Tokyo has nevertheless effectively been compensating Beijing ever since Deng opened China to the outside world—Japan has provided more than twenty-three billion dollars to China in financial aid and "soft" loans since 1979.[43]

Japan has become increasingly concerned about China's nationalist rhetoric, military modernization, and related maritime activities. Japan's sensitivities were heightened when the two issues were linked in early August 2000 by the refusal of Japan's ruling Liberal Democratic Party (LDP) to sanction a ¥17.2 billion ($161 million) low-interest infrastructure loan due to consternation over Chinese research vessels in Japanese-claimed waters. At least seventeen such "intrusions" by Chinese vessels were claimed to have taken place that year, whilst Chinese naval vessels had been sighted in the Tsugaru and Osumi Straits, leading one Tokyo politician to label China's actions as an "apparent provocation."[44] Another LDP member was quoted as declaring that "those [Chinese] vessels may be searching for places to illegally enter Japanese territory. Japan's sovereignty has been violated."[45] Such statements reflected both growing concern about China's strategic expansion and Japanese frustration that the Chinese government had kept its public ignorant of Japan's huge contributions to China's infrastructure improvements, castigating Japan in the state-controlled media and taking credit for Japanese-funded projects. The loan package was subsequently released only after Chinese "concessions" relating to "naval incursions."[46] In February 2001 China and Japan agreed to provide advance notification of marine scientific research

activities, although the ocean areas to be covered have not been defined, due to fundamental disagreement over maritime delimitation.[47]

Chinese marine scientific research in what Japan considers its waters, probably including surveys on marine resources and oceanographic data but also naval intelligence collection, has in fact been carried out continuously over the last several years. Most of the activity seems to take place in areas of disputed jurisdiction—overlapping and unresolved exclusive economic zones, and the waters surrounding the contested Senkakus—thus allowing China to claim that the consent of the coastal state (Japan) is not required.[48] In the wider strategic context, however, Japan views such activities as the thin end of the Chinese wedge. One quasi-official Japanese analysis notes that similar activities preceded China's occupation of the Paracels and features in the Spratly group, summing up: "Supported by the activities of marine scientific research vessels and naval vessels, combined with its increasingly active fishing industry and marine transportation, China may consolidate its position as a full-fledged sea power in the future."[49]

The statement may seem matter of fact, yet in context it demonstrates Japan's concern with China's burgeoning sea power. More specifically, the same analysis suggests that increased Chinese naval activity around the Senkakus in 1999 may have been linked not only to China's marine scientific research program but also to then–Taiwanese president Lee Teng-hui's "state to state" description of China-Taiwan relations, "as moves designed to restrain the passage of bills related to the Guidelines for Japan-U.S. Defense Cooperation."[50] Perhaps even more revealing of unfolding difficulties in the Sino-Japanese relationship is the role that Taiwan has played in Japan's strategic thinking—most importantly, Taiwan's place in the new guidelines.

The revised Guidelines for Japan-U.S. Defense Cooperation agreed upon in September 1997 were designed to enhance the relevance of the alliance by subtly adapting to the new regional security conditions of the post–Cold War period. The most significant revision to the 1978 guidelines was the provision—passed into law, partially amended, in May 1999—for "cooperation in situations in areas surrounding Japan that will have an important influence on Japan's peace and security."[51] Enhanced cooperation and expanded roles for Japan within the existing alliance framework envisaged by the term "situations in areas surrounding Japan" include humanitarian relief, noncombatant, and search and rescue operations; the provision of facilities and rear area support for U.S. forces; and operational cooperation, to include surveillance and minesweeping support both "in Japanese territory and on the high seas around Japan," and sea and airspace management.[52] Although opinion is divided, it seems likely that the new guidelines represent a significant, if limited, shift in Japanese defence

policy from an orientation purely of self-defense to one that shows an intent to play a greater role in assisting the United States to underpin regional security.[53] Implementation of the guidelines, however, has been tardy, and American moves to strengthen the alliance seemed by the close of the Clinton era to have lost impetus.[54] The Bush administration has attempted to reinvigorate the U.S. relationship with Japan as part of its renewed strategic emphasis on Asia; the assistant secretary of defense for international security affairs, Peter Rodman, has publicly encouraged Japan to exercise its right of collective defence within the framework of the alliance. Also, the Japan Defense Agency has reportedly created an "action plan" for cooperation with U.S. forces under the guidelines, although its contents remain classified.[55]

The geographically undefined reference to "areas surrounding Japan" is not only the most important revision but the most controversial. China, which objects generally to the revised guidelines as one of several "new negative developments in the security of the Asia-Pacific region," claims that such a loose geographical definition might include Taiwan. The new guidelines, in China's view, have

> failed to explicitly undertake to exclude Taiwan from the scope of "the areas surrounding Japan" referred to in the Japanese security bill that could involve military intervention. These actions have inflated the arrogance of the separatist forces in Taiwan, seriously undermined China's sovereignty and security and imperiled the peace and stability of the Asia-Pacific region.[56]

Tensions across the East China Sea were heightened when Japan's chief cabinet secretary publicly stated that the guidelines were relevant for the Taiwan Strait area.[57] That view had been prefigured by other Japanese officials in 1997; one former Japanese foreign ministry official had declared, for example, that "no one has denied that the Taiwan Strait is included. Japan has a great interest in stability and peace in the Taiwan Strait."[58] Japan has since attempted to explain its way out of this controversy by stating that the term is "not geographic but situational," but such diplomatic creativity has failed to mollify China.[59] In any case, the difficulty lies primarily not in vague definitions or (mis)perceptions over whether "areas surrounding Japan" include Taiwan but in a fundamental clash of interests between Japan and China over Taiwan's future.

Most interpretations of the political and strategic rationale behind the guidelines focus on the need, from a U.S. perspective, to rejuvenate the alliance relationship in the absence of any Russian threat and to bolster regional stability against North Korea's ballistic missile and nuclear weapon programs. Although the Japan-U.S. Joint Declaration on Security, which set forth the case for revising the original defence cooperation guidelines, appeared only a month (in April 1996)

after the Taiwan Strait missile crisis, analysts maintain that the guidelines envisioned primarily a Korean scenario;[60] the revised plans for operational cooperation "were almost certainly created with Korean scenarios, not Taiwan, in mind."[61] However, it is likely that Taiwan played a larger role in the Japanese decision to adopt them than is commonly believed. Backing up the statements from officials, one senior analyst at Japan's National Institute of Defense Studies has suggested that from Tokyo's perspective, the guidelines were aimed primarily at a Taiwan contingency.[62] Japanese defence analysts with a maritime focus often relegate the Korean Peninsula to a subsidiary status in Japan's defence priorities and strategic concerns; for them, China is increasingly the primary threat, and Taiwan a more pressing interest.[63]

Tokyo's close, if unofficial, political and economic ties to Taiwan (its colony from 1895 to 1945) may grow yet stronger as China continues its maritime expansion; Taiwan's continued separation from the mainland is, therefore, a strategic interest for Japan. In a cross-strait conflict Tokyo is unlikely to get involved in a direct military sense, but it might do so indirectly, by assisting the United States in accordance with the new guidelines.

U.S. Strategic Interests and Taiwan

The announced Chinese unification formula, which would bar PLA forces from Taiwan and allow the island to maintain its own armed forces, should be viewed as a ploy. China's 2000 white paper on Taiwan, after reiterating that upon "reunification" Beijing would "not send troops or administrative personnel to be stationed in Taiwan," declared that other states should "refrain from providing arms to Taiwan or helping Taiwan produce arms in any form or under any pretext."[64] If Taiwan ceded its sovereignty it would no longer be able to purchase weapons, spare parts, or related technologies from abroad; the capabilities of the Taiwanese armed forces would slowly wither. There could be no further prospect of U.S. intervention on behalf of Taiwan. Even without People's Liberation Army forces on Taiwan, unification would remove a barrier to the Navy's access to the Pacific Ocean, and it is barely credible to suggest that China would desist from utilizing Taiwan as a strategic asset for long, particularly if Japan reacts to Chinese maritime advances in some tangible manner.

Therefore, in the context of its alliance relationship with Japan, Taiwan matters *strategically* to the United States. Although the United States itself would not be directly endangered in any immediate, military sense by China-Taiwan unification, it could not ignore the adverse geostrategic consequences for security in East Asia. China would not only be able to take advantage of Taiwan's wealth, advanced technology (including U.S.-transferred military technology), and (possibly) its highly educated workforce but would also pose a direct challenge

to Japanese security by dominating its energy lifelines and depriving Tokyo of a close (if informal) political friend.[65] The ability of China's improving navy to sever Japan's maritime lifelines and to prosecute effective sea denial against the U.S. Navy (potentially even local sea control within the semi-enclosed East China and South China Seas) would be greatly improved if the Chinese army controlled Taiwan.

Unless the security of Japan ceases to be a vital national interest of the United States, the maintenance of the geopolitical status quo in Taiwan is a balance-of-power and shipping interest for the United States.[66] The future of Taiwan has become linked to Japanese security, therefore, and the future health of the Washington-Tokyo alliance, the possible alternatives to which hardly inspire confidence: a strategically assertive Japan left to protect its own interests might make a regional conflict with China more likely; an introspective Japan preoccupied by domestic concerns could remove an obstacle to Chinese expansion; and in the worst case, a weakened Japan that tied itself to China would instantly create a geopolitical rupture with genuinely global implications. However speculative, these alternatives demonstrate that it is difficult to imagine a positive regional security architecture in the absence of the U.S.-Japan Mutual Security Treaty and a constant American presence.

In any case, the George W. Bush administration has called China a "strategic competitor of the United States, not a strategic partner";[67] Secretary of Defense Donald Rumsfeld has reportedly identified China as the primary future strategic threat;[68] it is therefore in the American interest to ensure that China is "constrained," by safeguarding Taiwan's freedom.[69] Thus, it seems prudent to suggest that America's strategy for East Asia include the strategic *denial* of the island of Taiwan to mainland China. The Taiwanese for their part seek to take advantage of the island's newfound strategic significance to America's Asian interests; President Chen has stated that "the crescent-shaped American defenses against China in the Pacific, without Taiwan, would be forced back to Saipan and Guam, even Hawaii."[70] A peaceful Taiwanese capitulation, then, is most unlikely; U.S. intervention in response to attempted coercion is not.[71]

DETERRENCE AND OPERATIONAL REQUIREMENTS

There is no way of knowing with certainty whether Chinese threats to use force to recover Taiwan are genuine or merely attempts to deter a Taiwanese declaration of independence. Perhaps China's increased deployments of ballistic missiles opposite Taiwan and Taiwan-focused military modernization simply represent a stratagem.[72] However, China deliberately disguises real capabilities as "a fundamental approach to deterrence";[73] the same forces employed to deter

formal independence may be used in anger. Therefore, the mainland itself needs to be effectively deterred and, if that fails, denied its objective.

Initial consideration needs to be given to Taiwan's own ability to defend itself. The United States acknowledges and has begun an attempt to remedy some of Taiwan's deficiencies in such "functional nonhardware" areas of concern as "defense planning, C4I, air defense, maritime capability, anti-submarine warfare, logistics, joint force integration, and training."[74] It has nevertheless failed to provide sufficient military means for self-defence. In this regard, there is a particular requirement for improved antisubmarine weapons (including modern submarines and maritime patrol aircraft), mine countermeasures, strike capabilities (to counter-deter those of China), and air defences.[75] American reluctance to supply (tactically) "offensive" weapons has unnecessarily restricted Taiwan's defence capabilities.[76] Holding off from selling sea-based theater missile defence systems, at least while they remain technologically immature, is politically sound, however.[77]

A new arms package for Taiwan announced in April 2001 set out to resolve some of Taiwan's force structure shortcomings, including, inter alia, twelve maritime patrol aircraft, four elderly yet still capable *Kidd*-class guided missile destroyers, MH-53E minesweeping helicopters, and most significantly, eight submarines.[78] It is unclear, however, whether the submarines can be delivered, as the United States (as Taiwan's only reliable source of arms and military technology) does not build nonnuclear boats, and other potential suppliers have thus far deferred to China.[79] Time may not be on Taipei's side; it seems to be whittling away Taiwan's ability to defend itself.[80]

Taiwan suffers from small size, lack of strategic depth, and proximity to the threat; Japan labors under constitutional and psychological constraints. Accordingly, responsibility for safeguarding Taiwan and the region's sea-lanes falls inevitably upon the shoulders of the United States. The administration seems increasingly aware of this; President Bush has declared that America "would do everything it took to help Taiwan defend itself."[81] The forthrightness of Bush's statement may well have reduced the diluting effects of strategic ambiguity upon deterrence. Nevertheless, the ability of the United States to deter or defend against mainland aggression ought not be taken for granted; it is clear neither what would deter the Beijing leadership if it felt its own domestic control was at stake, nor whether U.S. naval forces are prepared to operate against a geographically advantaged enemy with forces and doctrine increasingly designed to repulse them.[82]

Much of the literature on China's strategic challenge reflects an assumption that deterrence by the conventional military superiority of U.S. forces is easy.[83] More perceptive analyses of both the theory and the (American) "practice" of

deterrence suggest that Cold War deterrence experience is not necessarily applicable to new "regional" adversaries.[84] If it is not, the ability of the United States to deter threats to far-flung regional friends and allies becomes tenuous; "The real problem for deterrence arises when the deterrent effect needs to be extended from a distant protecting power."[85] To be effective, deterrence policy needs to be tailored to "the given opponent and context." An urgent need exists, then, for improved understanding and intelligence about regional rivals.[86]

Any deterrence policy "tailored" for the Taiwan Strait will need to take account of the ways in which China might combine "asymmetric" strategies with more conventional measures.[87] Asymmetries—in geography, interests, capabilities, and doctrine—further complicate the operation of deterrence over long distances. The Pentagon now recognizes that such factors must be accounted for when assessing correlations of forces between such pairs of "dissimilar actors" as China-Taiwan and China–United States.[88] "The root of effective tactical action," advises Wayne Hughes, "is an appreciation that force estimation is a two-sided business and that not all elements of force are found in the orders of battle."[89]

An effective amphibious invasion of Taiwan seems beyond China at present;[90] at the same time, the U.S. ability to counter a concerted attempt at military coercion is less than certain.[91] From a purely operational perspective there is cause to question the American predominance at sea. A Taiwan conflict is less likely to be fought in the open ocean, where the U.S. Navy possesses its greatest operational advantages, than in the strait itself, China's coastal zone, and the East China and northern South China Seas. The problems facing maritime powers in an unfriendly and confined littoral environment are both severe and well known.[92]

American and Taiwanese forces would be faced with an unfavourable geographic position—the defence of a small island only a hundred nautical miles away from a hostile continental power in possession of a long coastline and significant strategic depth, including active defence far out to sea. U.S. naval forces at sea would have to sustain themselves from a small number of bases in the Northeast Asian theater, vulnerable to political unreliability among host nations and to ballistic missile attack.[93] Furthermore, China's land-based airpower, missiles, and surveillance assets would contest any response from the sea. The problems will be exacerbated if the United States attempts to defend Taiwan under restrictive rules of engagement.

A recent RAND report has identified ways to enhance the American force posture in Asia and, for a Taiwan contingency specifically, to overcome some of these concerns: development of Guam as a power-projection hub (from which to fly B-52s armed with Harpoon antiship cruise missiles for long-range conventional strikes); new concepts for joint operations by carrier aviation and Air Force combat support elements; new bases in the southern Ryukyus (only

150–250 nautical miles from Taipei) and, possibly, on northern Luzon and Batan Island (between Luzon and Taiwan).[94] The 2001 Quadrennial Defense Review also reflects such considerations, stating in less specific terms that the United States will: maintain U.S. bases in Northeast Asia and improve Air Force "contingency basing"; increase the presence of aircraft carrier battle groups and numbers of surface warships and submarines based in the western Pacific; and conduct Marine Corps littoral warfare training in the region.[95] A former American defence and naval attaché to China has clearly stated that by these measures the Bush administration "is attempting to deter any possible Chinese adventure against Taiwan."[96]

Secondly, forces operating in or near the littoral must cope with electronic clutter, making it harder to identify targets and threats accurately and rapidly. The presence of commercial shipping, fishing vessels, and other civilian coastal craft adds to the threat identification problem—all the more if they have been sent to sea for that very purpose. Civilian vessels may also be surreptitious weapon or sensor platforms. The many islands along the central Chinese coastline add to the physical clutter and provide hiding places for naval units and screens for aircraft.[97]

In a third consideration, oceanographic features, particularly water depth, and such factors as currents, seabed composition, and coastline configuration may favour diesel-electric submarines, missile-armed fast patrol boats, and mine warfare.[98] The Taiwan Strait, specifically, is difficult for antisubmarine operations, due to its shallow, rough seas and the influx of rivers.[99]

Finally, the missile problem becomes particularly complicated in confined waters. "The strictures of littoral warfare threaten to cramp movement and compress inshore operations into an explosive mixture of air, land, sea, and undersea launched missiles."[100] Combat in semienclosed waters is likely to be compressed in time as well as in space, placing a premium upon reconnaissance and tactical intelligence.[101] Clausewitzian friction, instability, and unpredictability would reign in any exchange of missiles. "A small change in the hit probabilities, the distribution of fire, defensive effectiveness, or the thwarted detection and tracking of all the enemy will create wide swings in the resulting damage."[102] The rules of engagement under which U.S. forces would be likely to operate would not permit them to reduce the instability and uncertainty by attacking first.[103] U.S. forces will therefore need defensive superiority, particularly integrated shipboard theater-missile and antiship-cruise-missile defences, and related doctrine.[104]

The U.S. Navy is supremely confident of its own ability to secure "battlespace dominance in the littoral."[105] Area-denial threats, it is sure, might slow a response to aggression and increase its costs but could not defeat it.[106] Such a characterization

is not only removed from the strategic reality of political contexts and constraints but ignores the inherent difficulties of modern warfare in the maritime backyard of a continental adversary like China.

A variety of analyses have pointed out these difficulties and capability shortfalls, and have made such recommendations as the development of small, more expendable craft for the littoral and adjacent narrow seas.[107] However, platform preferences aside, the essential point is the need to develop, in an integrated fashion, strategy, forces, operational and tactical plans, and doctrine *specifically* to deter and, if necessary, combat Chinese aggression in the Taiwan Strait. General-purpose U.S. capabilities may in time not be enough—perhaps even now.

REFOCUSING U.S. TAIWAN POLICY

Taiwan has increased in strategic importance for China, the United States, and Japan, and not merely because of its own internal democratic or economic development. There is more to Taiwan's new role than simply the negative effects of cross-strait tension and conflict upon stability and confidence, and upon U.S. credibility as regional stabilizer. Underlying these issues is a real and unfolding battle over Taiwan's geopolitical future in the new Asian strategic context, inexorably affecting the interplay of great power relations in the new century. That new context—the political, economic, and strategic advance of China from its continental haven into the surrounding seas—places Taiwan on the front line of strategic developments in East Asia.

For China's regional ambitions, the successful swallowing of Taiwan would be a genuine "great leap forward" that would remove geographical restrictions to the growth of Chinese power and influence across Asian seas. Many analysts reduce the Taiwan issue to the future of Sino-American relations. However the Taiwanese may have exacerbated matters in the recent past, the underlying problems are deeper than the progress of Taiwanese democracy and national identity. The real strategic picture encompasses major-power relations in Asia; the future of the U.S. presence in, and commitment to, the region; and perhaps even the future ability of American seapower to influence events there. The island of Taiwan will be, as it has been for much of its post-Portuguese history, a pawn in the competitive relations of regional great powers.

It is hardly a happy situation; strategic competition already makes a difficult situation even less tractable. Certainly, it is not foreordained that China will become an enemy of the United States and the democratic states of Asia and the Pacific, or even a global power. Yet the portents are not positive; China seems intent on overturning the status quo.

What is required of the United States is not a wholesale change of Asian policy but a refocusing on long-term strategic interests—protecting regional allies and

maintaining American maritime preponderance, thus allowing regional sea-based trade to flourish unhindered. The Chinese threat to Taiwan is the primary near-term challenge to the regional order. As the Taiwanese are most unlikely to surrender willingly, and as the United States has a vital national interest in maintaining order in maritime East Asia and its own position against challengers to that order, a strong case can be made on *strategic* grounds for defending Taiwan's de facto independent status, should the need arise. If Taiwan were to be abandoned, the entire U.S. policy and strategy framework for Asia would become defunct and relationships would be redefined in ways as yet unknowable, bringing into play further unwanted, unpredictable, nonlinear consequences.[108] Such a loss would at the least accelerate regional instability and animosity, and create a greater likelihood of a genuinely adversarial relationship between China and the United States, one in which China would enjoy a more advantageous correlation of forces than at present.

The United States, therefore, needs to recognize that the significance of Taiwan lies beyond managing its relationship with Beijing. If the Japanese alliance is to remain the linchpin of U.S. strategy in East Asia, it must be reinvigorated politically; if at the same time Japan's strategic development is to be constrained, the United States must maintain the status quo in the Taiwan Strait. It makes sense for the United States to develop closer links with its friends throughout maritime East Asia in the fields of reconnaissance, surveillance, intelligence, basing, and logistics; however, the United States must have the full range of military capabilities necessary for near-independent operations in littoral Northeast Asia. These capabilities include both mine warfare and other coastal combat forces, and sea-based theater missile defence.[109]

Any strategy should include detailed operational plans and doctrine specifically designed for a Taiwan contingency. Efforts already under way to improve operational effectiveness in littoral waters against a continental power armed with modern missiles and asymmetric capabilities and tactics must be continued. Indeed, the Bush administration seems to recognize the significance of Taiwan in the new Asian security environment; however, success in deterrence or actual conflict should not be taken for granted. Still, an understanding of how such a strategy, and related operational plans, tactics, capabilities, and doctrine can combine to support American Asian policy will represent a sound basis for future action and the continued stability of the regional order.

NOTES

1. On the incident, see "Trapped behind the Lines," *The Australian,* 3 April 2001, p. 1. On Chinese demands to end surveillance flights, see "No One's Backing Down in Beijing," *The Australian,* 19 April 2001, p. 10.
2. *Taiwan Relations Act,* Public Law 96-8 96th Congress, 10 April 1979, secs. 2 and 3.
3. See John W. Garver, *Face Off: China, the United States, and Taiwan's Democratization* (Seattle: Univ. of Washington Press, 1997); Suisheng Zhao, ed., *Across the Taiwan Strait: Mainland China, Taiwan, and the 1995–1996 Crisis* (New York: Routledge, 1999); James R. Lilley and Chuck Downs, eds., *Crisis in the Taiwan Strait* (Washington, D.C.: National Defense Univ. Press, 1997); Greg Austin, ed., *Missile Diplomacy and Taiwan's Future: Innovations in Politics and Military Power,* Canberra Papers on Strategy and Defence 122 (Canberra: Australian National Univ., 1997); Douglas Porch, "The Taiwan Strait Crisis of 1996: Strategic Implications for the United States Navy," *Naval War College Review,* Summer 1999; and Robert S. Ross, "The 1995–96 Taiwan Strait Confrontation: Coercion, Credibility, and the Use of Force," *International Security,* Fall 2000.
4. See "Chen Puts Focus on Consensus," *Taipei Times,* 29 August 2000, p. 1.
5. On the need for the United States to maintain a principled basis for the exercise of its preponderant power, see Robert G. Kaufman, "E. H. Carr, Winston Churchill, Reinhold Niebuhr, and Us: The Case for Principled, Prudential, Democratic Realism," in *Roots of Realism,* ed. Benjamin Frankel (London: Frank Cass, 1997), pp. 351–3.
6. A useful historical overview is Simon Long, *Taiwan: China's Last Frontier* (London: Macmillan, 1991); see also Robert Dujarric, "Taiwan and East Asian Security," Hudson Briefing Paper, February 1996, pp. 1–4.
7. A point well made in Gerald Segal, "Does China Matter?" *Foreign Affairs,* September–October 1999, pp. 26–7.
8. Peter J. Rimmer, "Shipping Patterns in the Western Pacific: The China Factor," *Maritime Studies,* May–June 1997, pp. 5–6.
9. Patrick M. Morgan, *Deterrence: A Conceptual Analysis,* 2d ed. (Beverly Hills, Calif.: Sage, 1983), pp. 42–6.
10. Information Office of the State Council of the People's Republic of China, "The Development of China's Marine Programs," Beijing, May 1998, reproduced in *Beijing Review,* 15–21 June 1998, p. 13.
11. Mamdouh G. Salameh, "China, Oil and the Risk of Regional Conflict," *Survival,* Winter 1995–96, table 2, p. 135. Chinese projections, however, were more conservative, predicting that offshore oil production would reach 5 percent and offshore gas 16 percent of total respective national outputs by 2000. See State Oceanic Administration, *China Ocean Agenda 21* (Beijing: China Ocean Press, 1996), p. 17.
12. "Marine Economy: New Economic Growth Point," *Beijing Review,* 30 November–6 December 1998, pp. 12–3.
13. See, for example, Michael Leifer, "Chinese Economic Reform and Security Policy: The South China Sea Connection," *Survival,* Summer 1995; Salameh, "China, Oil and the Risk of Regional Conflict"; and Mark J. Valencia, *China and the South China Sea Disputes,* Adelphi Paper 298 (London: Oxford Univ. Press for the International Institute for Strategic Studies, 1995). Chinese sources have estimated that the potential hydrocarbon resources of the Spratly and Paracel Islands could amount to at least 105 billion barrels (bb) of oil and up to 900 trillion cubic feet (Tcf) of gas, whilst the seabed of the entire South China Sea might hold up to 213 bb of oil and more than 2000 Tcf of gas. However, such figures are both disputed and unproven; the U.S. Geological Survey and other Western sources estimate oil and gas resources to be in the vicinity of 10 bb and 35 Tcf in the Spratlys, and 28 bb and 266 Tcf in the entire South China Sea, respectively. See U.S. Energy Information Administration, "South China Sea Region," January 2000, on the World Wide Web: http://www.eia.doe.gov/emeu/cabs/schinafull.html (3 May 2000), pp. 2–3.
14. You Ji, *The Armed Forces of China* (St. Leonards, New South Wales, Australia: Allen and Unwin, 1999), pp. 85–6, 230.

15. See Liu Huaqing, "Defense Modernization in Historical Perspective," in *Chinese Views of Future Warfare,* ed. Michael Pillsbury, rev. ed. (Washington, D.C.: National Defense Univ. Press, 1998), pp. 115–8.
16. Alexander Chieh-cheng Huang, "The Chinese Navy's Offshore Active Defense Strategy: Conceptualization and Implications," *Naval War College Review,* Summer 1994, pp. 16–8; Jun Zhan, "China Goes to the Blue Waters: The Navy, Seapower Mentality and the South China Sea," *Journal of Strategic Studies,* September 1994, pp. 189–90; and You, *The Armed Forces of China,* pp. 166–7.
17. Ellis Joffe, *The Chinese Army after Mao* (London: Weidenfeld and Nicolson, 1987), pp. 89–91, 109–11.
18. You, *The Armed Forces of China*, pp. 8–9.
19. Eric McVadon, "PRC Exercises, Doctrine and Tactics toward Taiwan: The Naval Dimension," in *Crisis in the Taiwan Strait,* ed. Lilley and Downs, pp. 259–60.
20. Malcolm R. Davis, "Back on Course," *Jane's Defence Weekly,* 24 January 2001, pp. 22–4; and "Two More *Sovremenny*s for China," *The Navy: The Magazine of the Navy League of Australia,* July–September 2000, p. 14. On the Moskit, see Steven J. Zaloga, "Russia's Moskit Anti-ship Missile," *Jane's Intelligence Review,* April 1996, pp. 155–8.
21. Stephen Blank, "Sino-Russian Relations Threaten U.S. Interests," *Jane's Intelligence Review,* February 2001, p. 54. It is difficult to find precise, verifiable data on Russia's arms transfers. However, one recent report suggests that Russia has thus far delivered fifty-eight Su-27s and some twenty single-seat Su-30s, with China to assemble up to two hundred Su-27s domestically. A new two-billion-dollar deal has been struck for thirty-eight twin-seat Su-30MKKs. See "Russian Fighter Jet Sale Awaits Final Seal," *South China Morning Post,* 20 September 2001, at: http://china.scmp.com/cgi-agename=SCMP/Printacopy&aid=ZZZID4RWJRC (20 September 2001).
22. John Wilson Lewis and Xue Litai, "China's Search for a Modern Air Force," *International Security,* Summer 1999, pp. 87–8.
23. See, for example, Jianxiang Bi, "Managing Taiwan Operations in the Twenty-first Century: Issues and Options," *Naval War College Review,* Autumn 1999, p. 37.
24. Construction will reportedly take place in new facilities at Shanghai's Jiangnan Shipyard. John Downing, "China Equips Itself for Power Projection," *Jane's Intelligence Review,* February 2000, p. 43.
25. For a historical perspective on the difficulties, see Geoffrey Till, "Adopting the Aircraft Carrier: The British, American, and Japanese Case Studies," in *Military Innovation in the Interwar Period,* ed. Williamson Murray and Allan R. Millett (Cambridge, U.K.: Cambridge Univ. Press, 1996). Also instructive is Ken E. Gause, "Considerations for 21st Century Carrier Navies," in *Maritime Aviation: Light and Medium Aircraft Carriers into the Twenty First Century,* ed. Thomas J. Hirschfeld and Peter Hore (Hull, U.K.: Univ. of Hull Press, 1999); and Gene I. Rochlin, Todd R. La Porte, and Karlene H. Roberts, "The Self-Designing, High-Reliability Organization: Aircraft Carrier Flight Operations at Sea," *Naval War College Review,* Autumn 1987, pp. 76–90, repr. Summer 1998, pp. 97–113.
26. "*Kiev* and *Varyag* Towed to China," *Jane's Navy International,* September 2000, p. 7; and "Mystery Surrounds Chinese Carrier 'Deal,'" *Jane's Navy International,* June 2000, p. 9. As of January 2001, Turkey was still denying the *Varyag* permission to transit from the Black Sea through the Bosphorus Straits; see Davis, "Back on Course," p. 23.
27. "Mystery Surrounds Chinese Carrier 'Deal,'" p. 9.
28. Ibid.
29. John W. Garver, "China's Push through the South China Sea: The Interaction of Bureaucratic and National Interests," *China Quarterly,* December 1992; and Leifer, "Chinese Economic Reform and Security Policy."
30. Mark A. Stokes, *China's Strategic Modernization: Implications for the United States* (Carlisle, Penna.: Strategic Studies Institute, U.S. Army War College, 1999), pp. 1–2.
31. Ibid., chaps. 3, 4, and 5. See also Dept. of Defense, "Annual Report on the Military Power of the People's Republic of China," Report to Congress Pursuant to the FY2000 National Defense Authorization Act, June 2000.

32. McVadon, "PRC Exercises, Doctrine and Tactics toward Taiwan," pp. 256–9.

33. Bill Gertz, "China Increases Missile Threat," *Washington Times,* 28 August 2001, at: http://asp.washtimes.com/printarticle.action=print&ArticleID=20010828-25165936 (29 August 2001).

34. Dept. of Defense, "The Security Situation in the Taiwan Strait," Report to Congress Pursuant to the FY99 Appropriations Bill, February 1999. See also "Annual Report on the Military Power of the People's Republic of China."

35. See, for example, Gu Ping, "Japan: Find a New Excuse to Participate in Constructing TMD," *Beijing Review,* 21 August 2000, pp. 10–1; and Sha Zukang, "International Arms Control and Disarmament: Retrospect and Prospect," *Beijing Review,* 4 January 2001, pp. 8–10.

36. See, for example, Maria Hsia Chang, "Chinese Irredentist Nationalism: The Magician's Last Trick," *Comparative Strategy,* January–March 1998, esp. pp. 84–5.

37. Nationalism is particularly strong within the PLA. See Maria Hsia Chang and Xiaoyu Chen, "The Nationalist Ideology of the Chinese Military," *Journal of Strategic Studies,* March 1998.

38. On the Chinese concept of "unrestricted war," see Ehsan Ahrari, "Unrestricted War: The Leveller," *Jane's Intelligence Review,* February 2000.

39. See, for example, David Shambaugh, "China's Post-Deng Military Leadership," in *China's Military Faces the Future,* ed. James R. Lilley and David Shambaugh (Armonk, N.Y.: American Enterprise Institute/M. E. Sharpe, 1999), pp. 14–5; and Ellis Joffe, *Taiwan and the Chinese Military* (Taipei: Chinese Council of Advanced Policy Studies, July 2000), pp. 2–3.

40. See, for example, Allen S. Whiting, "The PLA and China's Threat Perceptions," *China Quarterly,* June 1996; and David Shambaugh, "China's Military Views the World: Ambivalent Security," *International Security,* Winter 1999–2000.

41. Jiang Minfang and Duan Zhaoxian, "The Analysis of Taiwan's Strategic Position," *Haijun Zazhi*, no. 8, 1995, quoted in You, *The Armed Forces of China,* pp. 212–3. The same view was proffered by a middle-ranking Chinese naval officer (a commander) in an interview with the author, Shanghai, July 2000. See also, Alexander Chieh-cheng Huang, "Taiwan's View of Military Balance and the Challenge It Presents," in *Crisis in the Taiwan Strait,* ed. Lilley and Downs, p. 282.

42. Erica Strecker Downs and Phillip C. Saunders, "Legitimacy and the Limits of Nationalism: China and the Diaoyu Islands," *International Security,* Winter 1998/99, pp. 137–9.

43. "Japan and China Eye Each Other Warily—As Usual," *The Economist,* 2 September 2000, p. 27.

44. "China Yen Loans at Risk, Says LDP," *Asahi Evening News,* 10 August 2000, p. 2.

45. "LDP Members Want Government to Shelve ¥17.2 Bil. in Infrastructure Loans to China," *Daily Yomiuri,* 9 August 2000, p. 2.

46. "China Shows Belated Gratitude to Japan for $46 Billion in Aid," *Sydney Morning Herald,* 14 October 2000, p. 24; and "Friends Indeed," *Far Eastern Economic Review,* 19 October 2000, p. 21.

47. "Japan, China Agree to Swap Ship Info," *Daily Yomiuri Online,* 9 February 2001, on the World Wide Web: http://www.yomiuri.co.jp/newse/20010209wo42.htm (12 February 2001).

48. Maritime delimitation between China and Japan involves disputes over seabed boundaries, overlapping exclusive economic zones, and the Senkakus, as well as agreements on fishing and joint development zones. See Greg Austin, *China's Ocean Frontier: International Law, Military Force and National Development* (St. Leonards, New South Wales, Australia: Allen and Unwin, 1998), pp. 193–205.

49. The National Institute for Defense Studies [NIDS], Japan, *East Asia Strategic Review 2000* (Tokyo: NIDS, 2000), pp. 105–6.

50. Ibid., p. 105.

51. Ibid., p. 121.

52. Japan Defense Agency [JDA], *The New Guidelines for Japan-U.S. Defense Cooperation* (Tokyo: JDA, n.d.).

53. (As was to be shown by the JMSDF deployment of November 2001.) Aurelia George Mulgan, "Beyond Self-Defence? Evaluating Japan's Regional Security Role under the New

Defence Cooperation Guidelines," *Pacifica Review,* October 2000.

54. Kurt M. Campbell, "Energizing the U.S.-Japan Security Partnership," *Washington Quarterly,* Autumn 2000; and Michael J. Green, "The Forgotten Player," *National Interest,* Summer 2000.

55. "Pentagon Official Says He Hopes Japan Will Exercise Right to Collective Defense," *Japan Times,* 23 August 2001, on the World Wide Web: http://www.japantimes.co.jp/cgi-bin/getarticle.p15?nn20010823a2.htm (23 August 2001); and "Defense Agency Outlines Emergency Plans with U.S.," *Japan Times,* 3 September 2001, on the World Wide Web: http://www.japantimes.co.jp/cgi-bin/getarticle.p15?nn20010903b3.htm (3 September 2001).

56. See Information Office of the State Council of the People's Republic of China, "China's National Defense in 2000," Beijing, October 2000, supplement to *Beijing Review,* 23 October 2000, p. ii; and see also, Ni Feng, "Enhanced U.S.-Japanese Security Alliance: Cause for Concern," *Beijing Review,* 16–22 June 1997.

57. See Rex Li, "Partners or Rivals? Chinese Perceptions of Japan's Security Strategy in the Asia-Pacific Region," *Journal of Strategic Studies,* December 1999, p. 11.

58. Yukio Okamoto, quoted in "Menage à Trois?" *Far Eastern Economic Review,* 9 October 1997, p. 24.

59. JDA, "The New Guidelines for Japan-U.S. Defense Cooperation," p. 21.

60. See, for example, Mulgan, "Beyond Self-Defence?" p. 245. Mulgan accepts, however, that Taiwan was also a factor behind the drafting of the new guidelines (p. 236).

61. Thomas J. Christensen, "China, the U.S.-Japan Alliance, and the Security Dilemma in East Asia," *International Security,* Spring 1999, p. 68.

62. Interview at NIDS, Tokyo, August 2000.

63. Several influential retired Japanese Maritime Self-Defense Force admirals interviewed in Tokyo in August 2000 were almost dismissive of the Korean Peninsula as a security concern. See Mohan Malik, "Japan Wary of Assertive China," *Jane's Intelligence Review,* December 2000; and Gary Klintworth, "Taiwan Replaces North Korea as Japan's Prime Concern," *Asia-Pacific Defence Reporter,* August–September 2000, pp. 16–8.

64. The Taiwan Affairs Office and Information Office of the State Council, People's Republic of China, "The One-China Principle and the Taiwan Issue," Beijing, February 2000, reproduced in *Beijing Review,* 6 March 2000, pp. 18 and 23.

65. Chinese analysts have similar conceptions; see Christensen, "China, the U.S.-Japan Alliance, and the Security Dilemma in East Asia," p. 63, n. 41; and Li, "Partners or Rivals?" pp. 11–2.

66. Robert Ross suggests to the contrary that despite "ideological affinity," American strategic interests are limited: "Neither U.S.-Taiwan cooperation nor denial of Taiwan to mainland military presence is a U.S. balance-of-power or shipping interest." Ross reminds us that the United States "at no cost to its security . . . ended military cooperation with Taiwan in the early 1970s." The idea is based, first, on a flawed neorealist assumption that a (supposedly existing) bipolar power structure in East Asia creates conditions for stability, and further on the mistaken assumption that geopolitical conditions have not changed since the 1970s. (Robert S. Ross, "The Geography of Peace: East Asia in the Twenty-first Century," *International Security,* Spring 1999, pp. 96–111, 113.) Similarly, Andrew Nathan, assuming U.S. naval and technological superiority, rejects the notion that the loss of Taiwan would endanger Japanese security, U.S. strategic interests, or regional sea-lanes. Andrew J. Nathan, "What's Wrong with American Taiwan Policy," *Washington Quarterly,* Spring 2000, pp. 99–100.

67. George W. Bush, quoted in "The Bush Family in China," *Far Eastern Economic Review,* 12 October 2000, p. 30.

68. "U.S. Identifies Beijing as Its Enemy Number One," *Sydney Morning Herald,* 26 March 2001, p. 8; and Bill Gertz, "Rumsfeld Says Missiles Proof of China's Global Ambitions," *Washington Times,* 7 September 2001, at: http://asp.washtimes.com/printarticle.asp?action=print&ArticleID=20010907-2129994 (7 September 2001).

69. The term "constrainment" was coined by Gerald Segal in "East Asia and the 'Constrainment' of China," *International Security,* Spring 1996.

70. Chen Shui-bian, quoted in Nathan, "What's Wrong with American Taiwan Policy," p. 98.

71. Nathan, "What's Wrong with American Taiwan Policy," p. 103.

72. For insights into the traditional Chinese use of stratagems, see Sun Haichen, comp. and trans., *The Wiles of War: 36 Military Strategies from Ancient China* (Beijing: Foreign Languages Press, 1993).

73. Stokes, *China's Strategic Modernization*, p. 145.

74. Dept. of Defense, "Executive Summary of Report to Congress on Implementation of the Taiwan Relations Act," Report to Congress Pursuant to Public Law 106-113, 18 December 2000, on the World Wide Web: http://www.defenselink.mil/pubs/twstrait_12182000.html (21 February 2001), p. 2.

75. See, for example, Michael O'Hanlon, "Why China Cannot Conquer Taiwan," *International Security,* Fall 2000, pp. 84–6.

76. The dubious distinction between "offensive" and "defensive" weapons is dismantled by Colin S. Gray, *Weapons Don't Make War: Policy, Strategy, and Military Technology* (Lawrence: Univ. Press of Kansas, 1993), chap. 2.

77. See, for example, Thomas J. Christensen, "Theater Missile Defense and Taiwan's Security," *Orbis,* Winter 2000; and O'Hanlon, "Why China Cannot Conquer Taiwan," p. 85.

78. "China Condemns U.S. Weapons Sales to Taiwan," *Sydney Morning Herald,* 25 April 2001, p. 10. After a long internal debate, Taiwan's military agreed to buy the *Kidd*-class guided missile destroyers, despite their preference for new Aegis-equipped ships. See "Military Approves Destroyer Purchase," *Taipei Times,* 2 October 2001, available on the World Wide Web: http://www.taipeitimes.com/news/2001/10/02/print/0000105360 (2 October 2001).

79. "Diving for Cover Costs Billions," *Far Eastern Economic Review,* 17 May 2001, p. 18.

80. David Shambaugh, "A Matter of Time: Taiwan's Eroding Military Advantage," *Washington Quarterly,* Spring 2000.

81. Quoted in "Arms and Studied Ambiguity," *The Economist,* 28 April 2001, p. 30.

82. Stokes, *China's Strategic Modernization,* pp. 141–3; and Porch, "The Taiwan Strait Crisis of 1996," esp. pp. 23 and 37.

83. Ross, for example, asserts that the U.S. superiority in maritime forces is all that is required to defend Taiwan from China's "land-based forces." His contraposition of U.S. maritime power against Chinese land power assumes that deterrence of Chinese operations against the island of Taiwan is simply a function of the obvious paper advantage of U.S. forces in the maritime sphere. See Ross, "The Geography of the Peace," p. 113. For a more pessimistic view, however, see Porch, "The Taiwan Strait Crisis of 1996," p. 37.

84. Keith B. Payne, "Post–Cold War Requirements for U.S. Nuclear Deterrence Policy," *Comparative Strategy,* July–September 1998, esp. pp. 231–7; and Colin S. Gray, "Deterrence and Regional Conflict: Hopes, Fallacies, and 'Fixes,'" *Comparative Strategy,* January–March 1998, pp. 52–5.

85. Ibid., p. 57.

86. Payne, "Post–Cold War Requirements for U.S. Nuclear Deterrence Policy," p. 237. For this reason it seems important that U.S. surveillance efforts, such as the EP-3 flights, be continued.

87. An excellent conceptual treatment of the problems and opportunities presented by strategic asymmetry is Steven Metz and Douglas V. Johnson, *Asymmetry and U.S. Military Strategy: Definition, Background, and Strategic Concepts* (Carlisle, Penna.: Strategic Studies Institute, U.S. Army War College, January 2001).

88. Dept. of Defense, "Executive Summary of Report to Congress," pp. 3–5.

89. Wayne P. Hughes, *Fleet Tactics and Coastal Combat,* 2d ed. (Annapolis, Md.: Naval Institute Press, 2000), p. 259.

90. See, for example, McVadon, "PRC Exercises, Doctrine and Tactics toward Taiwan," pp. 251–6; and O'Hanlon, "Why China Cannot Conquer Taiwan."

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94. Zalmay Khalilzad, et al., *The United States and Asia: Toward a New U.S. Strategy and Force Posture* (Santa Monica, Calif.: RAND, 2001), pp. 71–4.

95. Dept. of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: 30 September 2001), p. 27.

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97. On the problems the U.S. Navy may face in the littorals, see Hughes, *Fleet Tactics and Coastal Combat,* pp. 165–7; and Tim Sloth Joergensen [Cdr., RDN], "U.S. Navy Operations in Littoral Waters: 2000 and Beyond," *Naval War College Review,* Spring 1998.

98. Vego, *Naval Strategy,* pp. 34–7; and Joergensen, "U.S. Navy Operations in Littoral Waters."

99. Mark Farrer, "China and Taiwan: An Opening Capability Gap Underwater," *Asia-Pacific Defence Reporter,* February 2001, p. 74. See also Göran Larsbrink, "Anti Submarine Warfare in Shallow Waters," *Naval Forces,* no. 1, 2000. It should be noted that submarine operations also can be restricted by shallow waters.

100. Hughes, *Fleet Tactics and Coastal Combat,* p. 311.

101. Ibid., pp. 198–202.

102. Ibid., p. 346, and chaps. 11 and 12. On the concept of friction see Carl von Clausewitz, *On War,* ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1976), book 1, chap. 7, pp. 119–21.

103. If any conflict broke out and the United States became directly involved, there would be strong political pressure to avoid striking the Chinese mainland, for example. For a hypothetical case involving similar constraints, see Hughes, *Fleet Tactics and Coastal Combat,* pp. 321–47.

104. Ibid., pp. 306–9 and 346.

105. U.S. Navy, "Forward . . . From the Sea: The Navy Operational Concept," March 1997, on the World Wide Web: www.chinfo.navy.mil/navpalib/policy/fromsea/ffseanoc.html, p. 6, (22 February 2001).

106. Ibid., p. 5. The new Quadrennial Defense Review recognizes that America's ability to operate in "distant anti-access or area-denial environments" should be enhanced, however, as one of six new operational goals identified as "the focus for DoD's transformation efforts." Dept. of Defense, *Quadrennial Defense Review Report,* pp. 30–1.

107. Vego, *Naval Strategy,* pp. 292–300; Joergensen, "U.S. Navy Operations in Littoral Waters," pp. 26–27; and Hughes, *Fleet Tactics,* chap. 12, esp. p. 347. See also, however, Stephen C. Audrand, "Blue-Water Power," U.S. Naval Institute *Proceedings,* September 2001, pp. 42–3.

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HAS IT WORKED?

The Goldwater-Nichols Reorganization Act

James R. Locher III

Organization has traditionally been a weak element of the American system of national defense. For the nation's first 150 years, the public actually favored a fractured military; so inattention to organizational issues has historical roots. The United States entered World War II with Departments of War and the Navy that were organizationally backward and "virtually autonomous."[1] Observing American inexperience and lack of multiservice coordination at the war's start, a British general wrote to London, "The whole organization belongs to the days of George Washington."[2] Army-Navy disputes complicated finding more appropriate wartime arrangements. The Navy entered the war embracing its cherished concepts of independent command at sea and decentralized organizations relying on cooperation and coordination. The Army's shortcomings in the Spanish-American War and its mobilization challenges during World War I had pushed that service in the direction of centralized authority and control.

The Army and the Navy were not able to solve their differences during World War II. Afterward, Congress settled the dispute in terms broadly favorable to the Navy's concepts—ones that preserved Navy and Marine Corps independence more than they met the requirements of modern warfare. Despite repeated operational setbacks over the next forty years, subsequent reorganization efforts offered only slight improvements. Such was the setting for the mid-1980s battle that produced the Goldwater-Nichols Department of

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Defense Reorganization Act of 1986. That bitter battle lasted for four years and 241 days—a period longer than U.S. involvement in World War II—and it pitted two former allies, Congress and the services, against each other.

In this article we will examine the changes mandated by the Goldwater-Nichols Act and assess whether they have worked. We will begin by reviewing briefly the history of defense organization and then, with that as background, outline the organization problems of the mid-1980s. Then we will turn our attention to Goldwater-Nichols itself—first outlining its key objectives and various provisions, and then assessing its effectiveness and results. Finally—as if the first four headings will not be controversial enough—we will address the unfinished business of Goldwater-Nichols and organizational steps for the future.

DEFENSE ORGANIZATION

Many of the problems of defense organization the United States experienced in 1986 had their origins early in the nation's history, at the beginning of the republic. It would be possible, however, to begin an analysis at the Spanish-American War, when Americans first realized that they needed centralized authority in both the War and Navy Departments and also some mechanism for cooperation between those two departments. But for our purposes, we need go back only to World War II.

The United States entered the Second World War with an archaic organization that was incapable of coordinating land, sea, and air activities across the two military departments, or even of harmonizing business (procurement, logistics, construction, transportation, etc.) efforts within the departments themselves. In February 1942, President Franklin D. Roosevelt created by executive direction the Joint Chiefs of Staff (or JCS), primarily to work with the British, who had a combined chiefs of staff organization. The Joint Chiefs of Staff assumed an enormous role. Next to the president, they were the most powerful Americans in the war effort. They not only had major military responsibilities but also collectively played crucial roles in political, intelligence, and even economic decisions. The American public's outcry over Pearl Harbor prompted the creation of unified theater commanders, like General Dwight D. Eisenhower in Europe. Service politics and jealousies prevented unifying the Pacific theater; it was divided into two commands—one led by General Douglas MacArthur, the other by Admiral Chester Nimitz.

General Douglas MacArthur, President Franklin D. Roosevelt, and Admiral Chester W. Nimitz aboard the heavy cruiser USS *Baltimore* (CA 68), June 1944 (U.S. Navy photo)

This joint centralization was paralleled by the creation of effective central authority within the War and Navy Departments, necessitated by the war effort, especially the enormous logistical tasks involved.

However, the contributions of the JCS were lessened by its adoption on its own of the principle of reaching unanimous agreement before speaking *ex cathedra.* Accordingly, the wartime Joint Chiefs—General Hap Arnold, the commanding general of the Army Air Forces; General George Marshall, the chief of staff of the Army; Admiral William Leahy, the chief of staff to the commander in chief (that is, President Roosevelt); and Admiral Ernest King, the Chief of Naval Operations—had essentially to operate by cooperation.

Admiral William D. Leahy (seated at head of table) presides at a meeting of the Joint Chiefs of Staff in 1944. Generals George C. Marshall and Henry H. Arnold are to Leahy's right, and Admiral Ernest J. King is to his left.

A vivid example of the limitations on the ability of the Joint Chiefs of Staff to do their work arose in connection with matériel allocations. The British had recommended that steel be diverted from the construction of battleships and heavy cruisers to convoy escorts and landing craft. Admiral Leahy, who had just joined the JCS, "remarked that it looked to him as though 'the vote is three to one.' [Admiral] King replied coldly that as far as he was concerned, the Joint Chiefs was not a voting organization on any matter in which the interests of the Navy were involved."[3] Essentially, he demanded veto power. For the most part, the Joint Chiefs operated upon that principle throughout the war (and in fact until 1986). Things would proceed when the chiefs could come to unanimous agreement—which often required watering down their collective advice.

Often, however, they could not agree. There was a fair amount of interservice rivalry during World War II, both in Washington and in the field. A British air marshal once said, "The violence of interservice rivalry in the United States had to be seen to be believed and was an appreciable handicap to their war effort."[4] In fact, in 1943 the Army attempted to create a single military department, in place of the War (that is, the Army and Army Air Forces) and Navy Departments, because it had become convinced that the current arrangement was too inefficient. However, disputes between the Army and the Navy were so severe that the idea of unifying the two military departments had to be put off until after the war, when President Harry Truman supported the War Department proposals for a single department, with a single chief of staff and assistant secretaries for land, sea, and air. Truman, who had been an artillery captain during World War I

and had stayed in the National Guard until 1940, rising to the rank of colonel, was very sympathetic to the Army's ideas on organization.

The Navy and the Marine Corps opposed unification, initially on organizational principles. The way the Army wanted to organize things was completely alien to the way the Navy was used to operating, rooted in the traditional ideal of independent command at sea. Eventually, however, the Navy and the Marine Corps were fundamentally driven by fear of losing aviation and land missions; the Marine Corps, in fact, saw unification as a threat to its survival. The U.S. Army Air Forces had emerged from World War II as a giant; the Navy was not certain that it could compete in a unified department with the powerful Army Air Forces, with its atomic mission, and its large parent service, the Army.

Congress was also divided on the unification issue; each service's view had strong supporters. But Congress ended up opposing Truman's proposals, for two main reasons. One was its own constitutional competition with the executive branch. Members of Congress feared that the executive branch might be able to organize its military affairs so effectively that Congress would be at a disadvantage. The second reason had to do with constituencies—where ships were to be built, where battalions would be posted, where jobs would be created; Congress would have more bargaining leverage vis-à-vis a military establishment in which authority was diffused. Congress came down, then, on the side of the Navy and the Marine Corps, forcing President Truman and the War Department to modify their approach; the National Security Act of 1947 was the ultimate result.

As Mrs. Eisenhower looks on, President Harry S. Truman shakes hands with General Dwight D. Eisenhower during an award ceremony in the White House Rose Garden on 18 June 1945 (U.S. Army photo).

Many people believe that the National Security Act of 1947 created the Department of Defense. It did not. Instead, it created something that was called, strangely, the "National Military Establishment," to be placed on top of the War and Navy Departments. The act prescribed a weak secretary of defense, with very limited powers and a small staff, and retained the World War II boards to govern the new organization. It gave legal standing to the Joint Chiefs of Staff but gave the group no chairman. The act not only continued the powerful secretaries of the military departments as cabinet members but also made them members of a new National Security Council. The services soon used their power to erect a service-dominated system. They emasculated the unified commands, despite the value they had shown in wartime. When the services were finished, the commands were unified in name only.

In 1958, President Dwight D. Eisenhower, assessing the compromises the original act reflected between Truman and Congress and between the Army and the Navy, said: "In that battle the lessons were lost, tradition won. The three services were but loosely joined. The entire structure . . . was little more than a weak confederation of sovereign military units."[5] It has been charitably said (by the Office of the Secretary of Defense Historical Office) that the National Security Act of 1947 "confirmed the principle of unification by cooperation and mutual consent."[6]

Truman and Eisenhower spent much of their energies trying to strengthen the National Security Act. There were revisions in 1949, 1953, and 1958—the latter two under Eisenhower. The 1949 legislation created the Department of Defense. All three sought to strengthen the secretary of defense. The 1949 revision established the position of chairman of the Joint Chiefs of Staff. (In the beginning, however, the chairman was not given a vote. Interestingly, some of Truman's early correspondence on the subject spoke of creating a chairman as principal military adviser, specifically to get away from the idea of JCS operation by consensus.) The military departments were downgraded in the various revisions; the secretaries were removed from the cabinet and from the National Security Council. The 1958 legislation removed the service secretaries and chiefs from the operational chain of command, in order to strengthen civilian control, as Eisenhower wished. It also gave the unified commanders full operational command of assigned forces. However, those provisions were not effectively implemented. The military departments retained a de facto role in the operational chain of command and never complied with the provision strengthening the unified commanders.

THE EIGHTIES

From 1958 to 1983, there were no major changes to defense organization; the alliance between Congress and the services was too powerful. Even Eisenhower, a war hero, was unable to overcome this alliance, and that was a salient lesson for subsequent presidents and secretaries of defense. There were continuing calls for reform—the Symington report for John F. Kennedy, Richard Nixon's Blue Ribbon Defense Panel, and the Defense Organization Studies for Jimmy Carter in the late 1970s.

During this period, the military suffered several operational setbacks: the Vietnam War, the seizure of the USS *Pueblo,* the seizure of the *Mayaguez,* the failed Iranian rescue mission, the Marine barracks bombing in Beirut, and the Grenada incursion. These failures had a number of common denominators—poor military advice to political leaders, lack of unity of command, and inability to operate jointly. The failed Iranian rescue mission exemplified these shortcomings.

Desert One

In April 1980, the United States conducted a raid to rescue fifty-three Americans held hostage in Tehran. The military had six months to organize, plan, and train, as well as fairly recent experience in conducting such a mission—the Son Tay raid about ten years before. Nonetheless, only six of the eight helicopters involved arrived at the rendezvous point, known as "Desert One," in the middle of Iran; one of the six that got that far suffered mechanical problems and could not proceed. That did not leave enough helicopter capacity to carry out the mission, and it was aborted. As the rescue force was departing, a helicopter collided with one of the C-130s that were carrying commandos and helicopter fuel; eight servicemen died. The helicopters, with valuable secret documents, weapons, and communications gear on board, were hastily abandoned.

Desert One

What were the underlying problems? No existing joint organization was capable of conducting such a raid. There was no useful contingency plan, no planning staff with the required expertise, no joint doctrine or procedures, and no relevant cross-service experience. The joint task force commander, Major General James Vaught, an Army Ranger, was a distinguished combat veteran, but he had no experience in operations with other services. The participating service units trained separately; they met for the first time in the desert in Iran, at Desert One. Even there, they did not establish command and control procedures or clear lines of authority. Colonel James Kyle, U.S. Air Force, who was the senior commander at Desert One, would recall that there were "four commanders at the scene without visible identification, incompatible radios, and no agreed-upon plan, not even a designated location for the commander."[7] How could this state of affairs have possibly arisen? It happened because the services were so separate and so determined to remain separate.

The Department of Defense—which in this period made no effort to reorganize itself fundamentally—was also suffering all manner of administrative problems. The nation was formulating security strategy unconstrained by realistic estimates of available fiscal resources, because the services could never agree on a fiscally constrained strategy and the allocation of resources to support it. Communications, refueling, and other vital systems and devices were

not interoperable across the services. There were modernization/readiness imbalances, because the all-powerful services were pushing for more modernization, while the readiness needs of the weak unified commanders were underrepresented.

There were numerous procurement and spare-parts horror stories during this period. A memorable one involved the coffeepots the Air Force bought for its C-5A Galaxy aircraft at a price of seven thousand dollars each. The pots were so advanced that they could keep brewing in conditions that would kill the crews.

"The System Is Broken"

The process that led to Goldwater-Nichols began when General David Jones, the chairman of the Joint Chiefs of Staff, went before the House Armed Services Committee in a closed session on 3 February 1982, about five months before he was to retire, and said, essentially, "The system is broken. I have tried to reform it from inside, but I cannot. Congress is going to have to mandate necessary reforms." General Jones was the catalyst, the most important factor in ultimately bringing about the Goldwater-Nichols Act; the four-year, 241-day battle had begun.

Shortly after General Jones's call for reform, General Edward "Shy" Meyer, the Army chief of staff, urged fundamental reorganization of the Joint Chiefs. During congressional testimony, a third sitting JCS member, General Lew Allen, the Air Force chief of staff, also voiced support for reorganization. The naval service's JCS members—Admiral Thomas Hayward, Chief of Naval Operations, and General Robert Barrow, Commandant of the Marine Corps—vigorously opposed reform efforts. The 1982 debate—bitterly pitting the Army and Air Force against the Navy and Marine Corps—reenacted the postwar disputes over unification.

In the summer of 1982, three Joint Chiefs—Generals Jones and Allen and Admiral Hayward—reached the end of their tenures. General John Vessey, of the Army, became the new chairman and adopted an antireform stance. The new Air Force chief of staff, General Charles Gabriel, also showed no interest in JCS reform. Admiral James Watkins, the new Chief of Naval Operations, shared Admiral Hayward's strong antireform sentiments. Suddenly, General Meyer was the only Joint Chief in favor of reorganization. In late 1982, the Joint Chiefs of Staff, responding to a study request by Secretary of Defense Caspar Weinberger, recommended against major JCS reorganization. Secretary Weinberger and President Ronald Reagan supported this recommendation, and the administration took for the first time an official position in opposition to JCS reform. This stance set the stage for a fierce fight between Congress and the Pentagon.

In the meantime, the House Armed Services Committee—spurred to action by General Jones's reform plea—held extensive hearings and formulated a bill on JCS reorganization, which the House of Representatives passed on 16 August 1982. Congressman Richard White (D-Texas), chairman of the Investigations Subcommittee, led the 1982 effort. In 1983, Congressman William Nichols (D-Alabama) assumed the chair of the Investigations Subcommittee and responsibility for pushing the reform legislation.

The Senate did not enter the fray until June 1983, when Senator John Tower (R-Texas), chairman of the Senate Armed Services Committee, launched a major inquiry on organization of the entire Department of Defense. At the same time, the last JCS reform supporter—General Meyer—retired. His replacement, General John Wickham, joined the antireform ranks. A new Marine commandant, General P. X. Kelley, was also appointed that summer. Like his predecessor, General Kelley was a determined opponent of reorganization. All five Joint Chiefs were now united in opposition to reorganization. When Senator Tower maneuvered to keep his committee in the antireform camp, the 1983–84 battle lines had the Pentagon and Senate squaring off against the House of Representatives. This division also reflected party politics. A Republican administration and Republican-controlled Senate were united in battling a Democratic-controlled House.

In 1985, four events began to shift the balance in favor of reform. Senator Barry Goldwater (R-Arizona) became chairman of the Senate Armed Services Committee and made defense reorganization his top priority. He formed a partnership with the committee's top Democrat, Senator Sam Nunn (D-Georgia). The bipartisan partnership of these two defense giants became the second most important factor leading to passage of the Goldwater-Nichols Act. The second event in 1985 was the elevation of Congressman Les Aspin (D-Wisconsin) to the chairmanship of the House Armed Services Committee. He was strongly proreform and provided important political and intellectual support to Congressman Nichols's efforts.

Senators Barry Goldwater and Sam Nunn, chairman and ranking minority member of the Senate Armed Services Committee (U.S. Senate photo)

The other two events occurred in the administration. Robert McFarlane, the national security advisor, convinced President Reagan to establish a commission—the Packard Commission—to examine defense reorganization. The commission eventually endorsed reforms being

considered by the Senate and House Armed Services Committees. On 1 October 1985, Admiral William Crowe, a supporter of defense reorganization, became the chairman of the Joint Chiefs. The Pentagon's official position in opposition constrained his public efforts, but behind the scenes Admiral Crowe pushed for reorganization. In 1986, these factors led the Senate and House to enact sweeping reforms despite the continued opposition of the Pentagon.

PURPOSES AND PROVISIONS

The organizational problems addressed by Goldwater-Nichols had existed for more than four decades. When Congress went to work on the bill, there were studies on hand by the Joint Staff and by various commissions for presidents and secretaries of defense dating back to the 1940s; there was a tremendous amount of evidence to make use of. We should note, however, that by 1996, the tenth anniversary of the act, the JCS chairman, General John Shalikashvili, could say: "The effects of Goldwater-Nichols have been so imbedded in the military that many members of the Armed Forces no longer remember the organizational problems that brought about this law."[8] That is certainly even truer today. In fact, there were really ten fundamental problems in the Defense Department to which the Congress turned its attention. Their seriousness is evidenced by the fact that Congress—which, as we have seen, had reason to like things the way they were—now collectively acknowledged that it would have to give up prerogatives in the defense area. Many in uniform also recognized problems, although the Department of Defense and the four services, as institutions, were dead set against addressing them.

The Congressional Perspective

The number-one problem plaguing the Department of Defense was an imbalance between service and joint interests. The services absolutely dominated: they had de facto vetoes in the Joint Chiefs of Staff, and they had weakened the unified commanders. On issues of major interest to them, the services aligned in opposition to the secretary of defense. General Jones had assembled a group of retired officers, the Chairman's Special Study Group, to study reform of the joint system; it agreed, "The problem is one of balance. A certain amount of service independence is healthy and desirable, but the balance now favors the parochial interests of the services too much, and the larger needs of the nation's defense too little."[9]

Second, military advice to the political leadership was inadequate. As before, it was being watered down to the lowest common denominator, so that all of the services could agree. General Jones said, "The corporate advice provided by the Joint Chiefs of Staff is not crisp, timely, very useful, or very influential."[10] James

Schlesinger, secretary of defense from 1973 to 1975, was even harsher: "The proffered advice is generally irrelevant, normally unread, and almost always disregarded."[11]

Third, military officers serving in joint-duty assignments were insufficiently qualified, by either education or experience. As Congress found, officers did not want to serve in joint assignments; they knew that in such billets they would be monitored for loyalty by their parent services. In the Navy in the mid-1980s, joint duty was considered the "kiss of death"; it meant that one's career was over. General George Crist of the Marine Corps, as commander in chief of Central Command, testified to Congress that there had not been a single volunteer for any of the thousand billets on his headquarters staff—all of them joint billets. Everyone on his staff had been forced to serve there. Officers unlucky enough to be assigned to joint duty got orders out of it as soon as they could; their tours of duty became dysfunctionally short.

General David C. Jones, chairman of the Joint Chiefs of Staff (U.S. Air Force photo)

A fourth point, already mentioned, was the imbalance between the responsibility and authority of each unified commander: his responsibilities were vast, his authority weak. A fifth, related problem was that operational chains of command were confused and cumbersome. The services challenged the operational role of the secretary of defense. The Joint Chiefs collectively and the service chiefs individually were not in the operational chain of command; nonetheless, the JCS often acted as if it were part of the chain, and individual chiefs played operational roles when the unified commanders involved were from their respective services. Chains of command within a unified command were obstructed by what came to be called "the wall of the component."[12] Unified four-star commanders had difficulty penetrating the "walls" of their service component commands; three-star or four-star commanders whom the service chiefs tended to protect led these components. Accordingly, joint commanders were unable really to pull their commands together to carry out their missions. In 1970, the Blue Ribbon Defense Panel had declared: "'Unification' of either command or of the forces is more cosmetic than substantive."[13] Samuel Huntington in 1984 observed, "Each service continues to exercise great autonomy. . . . Unified commands are not really commands, and they certainly aren't unified."[14]

Sixth, strategic planning was ineffective. The entire Pentagon was devoting its attention to programming and budgeting, and neglecting the formulation of

long-range plans. Seventh, large agencies had been created—the Defense Logistics Agency, the Defense Intelligence Agency—to provide common supply and service functions for all components, but mechanisms for supervising or controlling them were ineffective. An eighth issue was confusion as to the roles of the service secretaries; the National Security Act of 1947 had not defined them. The secretary of defense had been placed on top, but his relationships with the service secretaries had been left unspecified, because addressing them would have been too controversial. Ninth, unnecessary duplication existed in the military department headquarters. Each military department had (as they still do) two headquarters staffs—that of the secretary, and that of the service chief. The Department of the Navy—comprising two service chiefs—actually has three headquarters staffs.

Tenth and last was the major problem of congressional micromanagement—even as seen from Capitol Hill. Congress was finding itself too often "in the weeds," immersed in details, not doing its job as the "board of directors," providing clear, but broad, strategic direction. Senator Nunn spoke of Congress's preoccupation with trivia: "Last year [1984], Congress changed the number of smoke grenade launchers and muzzle boresights the Army requested. We directed the Navy to pare back its request for parachute flares, practice bombs, and passenger vehicles. Congress specified that the Air Force should cut its request for garbage trucks, street cleaners, and scoop loaders. This is a bit ridiculous."[15]

Striking the Balance

The overarching objective of Goldwater-Nichols as it was ultimately formulated was to balance joint and service interests. It was not to thwart service prerogatives; the services were and would remain the most important elements of the Department of Defense. They were, and are, the foundations on which everything else had to be constructed. To strike that balance, the drafters of the Goldwater-Nichols Act adopted nine objectives:

- Strengthen civilian authority
- Improve military advice to the president (in his constitutionally specified capacity as commander in chief of the armed forces), secretary of defense, and National Security Council
- Place clear responsibilities on the unified commanders in chief for mission accomplishment
- Ensure that a unified commander's authority is commensurate with his responsibilities
- Increase attention to strategy formulation and contingency planning

- Provide for the more efficient use of resources
- Improve joint officer management
- Enhance the effectiveness of military operations
- Improve Defense Department management and administration.

In the past, Congress had tried to limit the authority of the secretary of defense, because, as has been noted, its direct links with the services, and to the industries that served them, worked to the benefit of members of Congress in local politics. But in the report accompanying the Goldwater-Nichols Act, Congress finally declared: "The secretary of defense has sole and ultimate power within the Department of Defense on any matter on which the secretary chooses to act."[16] That is, no one in the Defense Department, civilian or military, possessed authority that was independent of the secretary. Eisenhower had decreed effectively the same thing in 1953, through an executive directive; only in 1986 was Congress prepared to legislate the point.

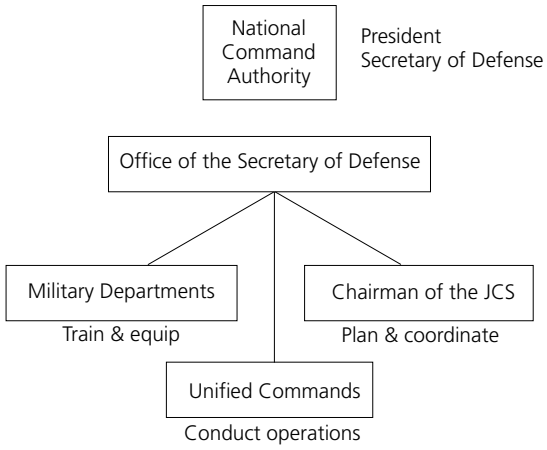
To strengthen further civilian authority, Goldwater-Nichols gave the secretary a powerful military ally in the JCS chairman. The chairman was freed from the necessity of negotiating with the service chiefs, and his institutional perspective was to be similar to that of the secretary. The 1986 legislation also specified the responsibilities of each service secretary to the defense secretary. Addressing civilian authority at the military department level, it clarified and strengthened the roles of each service secretary.

To improve military advice, the act transferred all corporate functions of the JCS to the chairman (in which he was to be assisted by a newly created vice chairman). Specifically, it designated the chairman of the Joints Chief of Staff as the principal military adviser, with a mandate to provide that advice on the basis of the broadest military perspective. Further, it made the Joint Staff (which supports the Joint Chiefs) responsible exclusively to the chairman, and it made elaborate provisions to improve the quality of officers assigned to the Joint Staff, as well as to the staffs of the unified commanders in chief.

It did so by ordering fundamental improvements in joint officer management generally—an arena that became the last battleground in the drafting, passage, and ultimate enactment of the Goldwater-Nichols legislation. The services saw that if they retained absolute control of promotions and assignments, Congress could pass all the laws it wanted—not much was going to change in the Department of Defense. Congress was equally determined to reward officers who accepted and performed well in billets that were outside of their services; to that end it created through Goldwater-Nichols a joint officer management system. Specifically, a joint career specialty was established, and joint education was

much more closely regulated—the services, for example, had been sending officers to joint schools but had assigned only a few graduates to joint billets.

As for the unified commanders in chief, the act made them clearly responsible to the president and the secretary of defense—constituted collectively as the "national command authority"—for the performance of missions and the preparedness of their commands. Goldwater-Nichols required the assignment of all combat forces to the unified commanders and removed the JCS from the operational chain of command. No longer could the services move forces in and out of regional commands without the approval, or even the knowledge, of the commanders in chief. (An investigation after the 1983 bombing of the Marine barracks in Beirut found that thirty-one units in Beirut had been sent there unbeknownst to Commander in Chief, U.S. European Command.)



Components of the Department of Defense (DoD chart)

To ensure sufficient authority for the unified commanders, the law essentially gave them all the authority that is traditionally given to a military commander. Unified commanders were empowered to issue authoritative direction on all aspects of operations, joint training, and logistics, to prescribe internal chains of command, to organize commands and forces, and to employ forces. A unified commander in chief could now assign command functions to subordinate commanders and approve certain aspects of administration and support. In addition, unified commanders could now exercise personnel authority: they could select their headquarters staffs and subordinate commanders (matters in which they had had almost no say in the past); they could suspend subordinates; and they could convene courts-martial. As might be imagined, all of this caused heartburn among the services. But Congress had decided that unified commanders had to have these kinds of authority if they were to be effective.

Goldwater-Nichols addressed the lack of emphasis on high-level planning by requiring the president to submit annually a national security strategy, on the basis of which the chairman was to prepare fiscally constrained strategic plans. (The Pentagon at first had major objections here, but a year's experience with the new process put them to rest.) The secretary of defense was to provide—with the assistance of the under secretary of defense for policy—guidance to the chairman of the Joint Chiefs of Staff and unified commanders for the preparation and review of contingency plans. Goldwater-Nichols also prescribed a role

for the under secretary in assisting the secretary's review of the plans. (These were major advances. Lacking policy and political guidance, the military drafters of contingency plans had been forced to formulate their own assumptions. Also, until then the JCS had jealously guarded contingency plans, permitting only the secretary—and no other civilian—to see them in completed form.)

In the resource area, the act called upon the secretary to provide policy guidance for the effective use of resources. He was to address objectives and policies, mission priorities, and resource constraints. Interestingly, Goldwater-Nichols told the military departments, in effect, that their collective role, their entire raison d'être, was now to fulfill as far as practicable the current and future requirements of unified commanders in chief. To the same end, the act strengthened the supervision, budget review, and combat readiness of the growing defense agencies. Congress also assigned ten new resource-related duties to the chairman of the Joint Chiefs of Staff, in the search for the independent joint budget perspective that had been missing.

Many of the above initiatives, taken together, constituted Congress's effort to improve the effectiveness of military operations. That left a final goal, improved management and administration—and here Congress's concerns included excessive spans of control. The Office of the Secretary of Defense and the service headquarters staffs had grown very large, and organizationally "excessively flat" —forty-two people reported directly to the secretary of defense, and some service chiefs directly supervised more than fifty. The Goldwater-Nichols drafters moved to reduce these spans of control. Believing that Pentagon headquarters were too large, they mandated personnel reductions in them. Addressing unnecessary duplication between service secretariats and military headquarters staffs, Goldwater-Nichols consolidated seven functions in the secretariats. Last, the act sought to promote a mission orientation in the Pentagon and overcome the excessive focus on functional activities—manpower, research and development, health affairs, and so on.

RESULTS

How well have the objectives that Goldwater-Nichols set been achieved? Have those objectives been met in terms of the Defense Department's performance?

Some commentators believe they have. Congressman (later secretary of defense) Les Aspin immediately called Goldwater-Nichols "one of the landmark laws of American history . . . probably the greatest sea change in the history of the American military since the Continental Congress created the Continental Army in 1775."[17] Admiral William Owens believes it was "the watershed event for the military since the Second World War."[18] William J. Perry, secretary of defense from

Admiral William J. Crowe, Jr., chairman of the Joint Chiefs of Staff (DoD photo by Seaman Oscar Sosa)

1994 to 1997, considers Goldwater-Nichols "perhaps the most important defense legislation since World War II."[19]

A few have been more critical. John Lehman, Secretary of the Navy in the Ronald Reagan years, charged in 1995 that the new Joint Staff reflected a gradual edging toward the old German general-staff system.[20] Richard Kohn has expressed concern about erosion of civilian control of the military.[21] The drafters of Goldwater-Nichols hoped for a Joint Staff that was as capable as the Office of the Secretary of Defense. Now, unfortunately, the Joint Staff is much *more* capable than the staff of the secretary of defense, and only partly due to improved quality of the work of the former—the performance of the Office of the Secretary of Defense has been weaker. Others have had similar unease regarding the current viability of civilian control. Professor Mackubin Owens of the Naval War College has argued, "The contributions of the Goldwater-Nichols Act . . . are marginal at best, and . . . the unintended consequences of the act may well create problems in the future that outweigh any current benefits."[22] Let us review the objectives again, this time in light of the experience of a decade and a half.

There is no dispute about the stature of the secretary of defense. He clearly is the ultimate authority in the Department of Defense, and his role in the chain of command is clear. He enjoys the independent military advice of the chairman of the Joint Chiefs of Staff, to such an extent that policy disputes are now generally between the secretary and chairman on one side, and the services on the other; such debates are no longer civil/military in nature, and that is fortunate. The secretary of defense now has well-understood relationships with the service secretaries, and their internal authority, in turn, has been clarified. There does appear to have been a reluctance on the part of secretaries of defense to exercise fully their newly won authority. The weaker performance of the Office of the Secretary of Defense—leading to an imbalance between the influence of that office and the Joint Staff—has diminished the civilian voice in decision making. The Goldwater-Nichols objective of strengthening civilian authority has produced results of a "B-minus," middling quality; there are problems here. Still, they are manageable ones; the problems that once crippled the secretary's authority have been overcome.

As for the quality of military advice to the national command authority, recent advisers and advisees have described it as greatly improved. Richard

Cheney, as the secretary of defense under President George H. W. Bush, thought it represented "a significant improvement" over the "lowest common denominator."[23] General Shalikashvili said, "We have been able to provide far better, more focused advice."[24] Previously, initiatives in the Joint Staff went through five levels of review, in which each service had, effectively, a veto. Papers tended to be reduced to the lowest common denominator, inoffensive to any service, even before they reached the chiefs themselves, where the necessity for unanimous agreement caused them to be denatured even further. In the end, the secretary of defense would turn to his own civilian staff for the substantial advice that he could not get from military officers. Goldwater-Nichols freed the JCS from these staffing procedures. The Joint Staff now works for the chairman, and the chairman—though he may consult the service chiefs and unified commanders—need "coordinate" his advice with no one. Not all observers are impressed; Secretary Lehman believes that making the chairman principal military adviser has "limited not only the scope of military advice available to the political leadership, but also the policy- and priority-setting roles of the service chiefs and civilian service secretaries."[25] Nonetheless, the overwhelming opinion believes that progress in this part of Goldwater-Nichols merits a grade of A, for tremendous improvement.

It is universally agreed that the same is true regarding clarifying the mission responsibility of the unified commanders in chief. Military officers and defense officials have repeatedly cited the benefits of a clear, short operational chain of command. General Norman Schwarzkopf, commander in chief of Central Command during DESERT STORM, found that the clarification of his responsibilities made a tremendous difference: "Goldwater-Nichols established very, very clear lines of command authority and responsibilities for subordinate commanders, and that meant a much more effective fighting force."[26] I would give this an A as well.

Goldwater-Nichols has also effectively made the authority of the unified commanders commensurate with their responsibilities. Overwhelming successes in military operations and peacetime activities have provided visible evidence of the positive results. The act's provisions have worked out very well because the Goldwater-Nichols drafters had a great model—the authority that the military has traditionally given to a unit commander—to use in assigning command authority to unified commanders. General Shalikashvili has characterized the improvement here in very positive terms: "This act, by providing both the responsibility and the authority needed by the CINCs [commanders in chief], had made the combatant commanders vastly more capable of fulfilling their warfighting role."[27] Observers are divided as to whether the unified commanders have too much, or too little, influence in resource issues. Nonetheless, the current state of affairs is probably about right—another grade of A.

World events and regional trends have thrust the unified commanders with geographic responsibilities into broader roles, in which they are seen as representing the U.S. government. Of all government agencies, only the Department of Defense has officials in the field with regionwide responsibilities. The unified commanders have performed well in this role, but to have U.S. security interests represented so powerfully around the world by military officers may in the long term become unacceptable, because the military dimension of national-security interests overseas is decreasing.

Of course, the most conspicuous success for Goldwater-Nichols has been in the realm of military effectiveness; there have been overwhelming operational successes since the law was passed. General Colin Powell observed, "Performance of the Armed Forces in joint operations has improved significantly and Goldwater-Nichols deserves a great deal of the credit."[28] Of U.S. joint warfighting capabilities, General Shalikashvili said, "No other nation can match our ability to combine forces on the battlefield and fight jointly."[29] Areas of concern might be slow progress on joint doctrine and resistance to the missions of the Joint Forces Command (formerly Atlantic Command) in the training, integration, and provision of joint forces and experimentation with new concepts. Nonetheless, the Department of Defense has clearly been doing "A" work in the Goldwater-Nichols structure to improve operational effectiveness.

General Colin L. Powell, chairman of the Joint Chiefs of Staff, and General H. Norman Schwarzkopf, commander in chief, U.S. Central Command, at the Pentagon on 15 August 1990 (DoD photo by R. D. Ward)

In the remaining objective areas, the Goldwater-Nichols experience has been less pleasant. Strategy formulation has improved, but the results are not yet very strong; published strategic documents still betray strong attachment to the past. Contingency plans have been improved tremendously, but there are still barriers between the civilian policy makers and operational staffs in crisis-action contingency planning. Strategy making and contingency planning under Goldwater-Nichols collectively merits a grade of C—unimpressive.

The effect of Goldwater-Nichols with respect to more efficient use of resources has been barely acceptable, if that—a grade of D. There have been some positives—the Base Force, recommended after the Cold War by General Colin Powell, then chairman of the Joint Chiefs of Staff, to reduce the military by 25 percent; and the Joint Warfighting Capability Assessments developed in the Joint

Staff, largely at the initiative of Admiral Owens. But the services continue to fund Cold War systems, cannot seem to break their attachment to them, and the Joint Requirements Oversight Council has rubber-stamped the services' choices. As Admiral Owens has argued, the inability of the defense establishment to make some fundamental decisions has squandered the post–Cold War period.[30]

The qualifications of joint officers have improved dramatically—thanks not to the Department of Defense, which has been until recently indifferent in its implementation of the act's joint officer provisions, but to the initiative of the officers themselves. These officers have come to see joint experience as something that can promote their careers or provide useful skill sets for the future. The department itself, however, still has no concept of its needs for joint officers or of how to prepare and reward them. The officer corps is much smaller now than it was when Goldwater-Nichols was passed; this is no area in which to be adrift. It requires, again, a balance between joint and service emphasis. Joint officer education can be pushed too far; service capabilities and perspectives are very important, for instance, and they can be taught only at command-and-staff and war colleges. The bottom-line grade for Goldwater-Nichols's objective of improving joint officer management is a C+.

Finally, the remedies applied by Goldwater-Nichols to defense management and administration have largely been ineffective. They were never a priority for the act's drafters, and troubling trends remain. Management of the large defense agencies is still weak. The Pentagon, with its large staffs including two (or three) headquarters staffs in each military department, is choking on bureaucracy. The division of work among the major components is blurred. The orientation to mission in business activities is still weak, and management doctrine, so to speak, is a relic of the 1960s. The Defense Department under Goldwater-Nichols gets a D here—barely getting by.

The overall report card, then, is mixed. In the areas that the original sponsors of the Goldwater-Nichols Act considered most pressing—military advice, the unified commanders, contingency planning, joint officer management, and military operations—the Department of Defense has made gratifying, sometimes striking, progress. That is, the act has been very successful in improving the operational dimension of the Department of Defense. The "business" reforms of Goldwater-Nichols, however, have not worked. These concerns, which may have been secondary fifteen years ago, are urgent now.

YESTERDAY'S WINNING FORMULA

The unfinished business of Goldwater-Nichols cannot be resolved from the bottom up; the Department of Defense is too large, and the rate of change it confronts is too rapid. The process will have to be driven from the top, by leadership with vision

and communication skills. In 1997, Secretary of Defense William S. Cohen sought to stimulate a "revolution in business affairs" in the Defense Department—the office of the secretary, the military departments, "business activities," and the defense agencies. He wanted to "bring to the department management techniques and business practices that have restored American corporations to leadership in the marketplace."[31] The effort needs to be accelerated tremendously—in a Defense Department with a culture that is markedly change resistant.

Resistance to change is a natural tendency of both humans and large organizations, but in a world characterized by accelerating change, it is a strategic liability. As two business scholars observed, "Yesterday's winning formula ossifies into today's conventional wisdom before petrifying into tomorrow's tablets of stone."[32] The world is moving very rapidly—and the U.S. Department of Defense is too attached to the past.

The dual headquarters at the top of each of the military departments must be combined into one; the current arrangement is far too inefficient for a fast-paced world, and it consumes far too much manpower. The defense agencies—which now expend more money than the Department of the Army—should be collected into a "fourth department," for support of the entire Defense Department—under an executive, a director of defense support, who can impose high-quality management techniques in this vital area. In the operational area, standing joint task force headquarters should be established in each regional unified command, despite the personnel and resource commitment that will involve; as it is, the military assembles forces for operations as if it were picking teams in a neighborhood basketball game. Joint Forces Command needs—in fact, all joint activities should have—a budget and authority to buy systems unique to joint operations. The present dependence on service executive agents gives the services too much control over progress in joint activities.

The Goldwater-Nichols story offers, in my view, two key lessons. First, defense organization is important; it deserves continuous and innovative attention. Congress came to the department's rescue in 1986, but today the Pentagon's organizational problems are again stacking up, and at an ever faster pace. Second, Goldwater-Nichols brings to the fore the struggle of each officer to find that balance between loyalty to service and devotion to the larger needs of the nation. All who work in elements of large organizations face a similar challenge. The natural impulse is to defend that element—to protect it against marauders, to be sure it gets its fair share, to demonstrate that its contributions are more vital than those of others, and, when necessary, to fight against its evil foes. Such impulses have their time and place, but increasingly, America will need officers who can resist them when the nation's security demands something more.

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AFTER THE STORM

The Growing Convergence of the Air Force and Navy

Major General John L. Barry, U.S. Air Force, and James Blaker

Over the last decade, military reformers have argued that when it comes to developing joint warfare capabilities, the U.S. military services have routinely substituted overblown rhetoric for heartfelt commitment.[1] The services may have redundant capabilities, critics complain, but they continue to stage knife fights over doctrine; they still have problems communicating with each other during actual operations; and they continue to squabble—quietly or not—over their "fair shares" of the defense budget.

There have been, however, few acknowledgements that the ability of U.S. forces to operate jointly is better now than it was a generation ago, when joint operations were rarely on anyone's "radar screens." In fact, it took the "Desert One" disaster, the resulting Goldwater-Nichols Act of 1986, and the ongoing debate over the current revolution in military affairs to lead us up to two fundamental questions. Are the four services trying to improve their joint operational abilities fast enough? How will their ability to operate jointly evolve over the next several years?

The answer to the first question, as this historically based article will demonstrate, has its roots in an expanding technological base; the centrifugal, go-it-alone behavior of the services in the late 1970s and 1980s; and the eventual march toward convergence, especially by the Navy and Air Force, since DESERT STORM. The answer to what happens in the future may be a bit trickier, but we offer a hypothesis: joint operational capabilities will accelerate dramatically, because of ever-expanding technological capabilities, and because of the growing convergence between service visions and doctrines, particularly in the case of the U.S. Air Force and the U.S. Navy.

THE EXPANDING TECHNOLOGICAL BASE: THE DIFFERENCE A DECADE MAKES

Joint operations used to mean nothing more than the participation of two or more services at the same time. There were a number of cultural, organizational, and political reasons for this orientation, but as recently as a decade ago there were important technological reasons as well. For example, given the size, heterogeneity, and different modernization rates of the armed services, the United States simply could not achieve, with few exceptions, cross-service data interoperability. The commanders of Army, Navy, Air Force, and Marine Corps units could communicate with each other, but the computers that actually ran and supported the equipment in their units generally could not exchange data quickly or establish the kind of information flow that was often needed. What we had, therefore, were military services entering the information revolution, but mostly within themselves rather than between each other.[2]

Then a second wave of the information revolution hit the U.S. military. This second wave included a bewildering array of technologies, including information "layering," new architectures and data standardization, the Global Command and Control System, Link 16, and more.[3] Much of this second wave remains esoteric, complex, and incomplete. Overall, however, its impact over the last ten years has been profound. While the technical integration of all major military systems and functions into a true system of systems is far from complete, enough is in place to achieve joint interoperability at the systems and data levels. From a technical standpoint we are literally entering a whole new world of joint forces.[4]

However, our technological ability to change the concept of joint operations from one that means, essentially, "being there with more than a single military service" to something that involves true interoperability, functional integration, and order-of-magnitude improvement in capability does not make the shift automatic. Changing the meaning of jointness requires willpower, and that is a function of culture, history, politics, and vision. To show how far the U.S. Navy and U.S. Air Force have come in these areas, we need to delve into what they have been saying about who they are, where they want to go, and why. From a joint operations perspective, it is a tale of divergence and yet convergence that started three decades ago.

FROM VIETNAM TO DESERT STORM: DIVERGING NAVY AND AIR FORCE DOCTRINES

In the early 1970s, as it became increasingly clear that the United States was pulling out of Vietnam, each of the military services began to assess what the previous decade had meant to it and, more importantly, what lay ahead. The

Army refocused its attention on Central Europe and developed the "AirLand Battle" concept, which eventually provided the foundation for its successful hundred-hour operation against Iraqi forces in DESERT STORM. The Air Force also turned toward planning for a war on the central front in Europe, as did the Navy. But the latter did so in the context of a general shift toward a war at sea, and under it. It was clear that the Soviet Union was building a naval force that could challenge our ability to flow men and materiel across the Atlantic, in the event of a conflict in Europe, and also test our control of the sea. As a result, Navy planning soon focused on blocking Soviet access to the Atlantic sea-lanes, initially between Greenland, Iceland, and the United Kingdom, and subsequently farther north, under the Arctic ice cap and into the Norwegian Sea.

By the late 1970s, however, a new pattern emerged in the Navy's thinking. Navy strategists accepted the fact that however vital the Navy's contributions to a Nato–Warsaw Pact conflict in Europe would be, they would be strategic in level and scope, and indirect in nature. At the same time, the strategists saw operations in the Norwegian Sea as increasingly important, and not only because they could bottle up the Soviet submarine threat. By threatening to conduct air operations from the Norwegian Sea, the Navy could also tie down Soviet ground and air forces that otherwise might be thrown against the Central European front. That, of course, was the basic assumption underlying what became the "Maritime Strategy."[5]

As attractive as the Maritime Strategy was to Navy thinkers, its fundamental problem boiled down to protecting aircraft carriers, and doing so within the confines of a strategic paradox. To tie down Soviet forces, the carriers had to get close enough to their northern flank to pose a serious attack threat to the Soviet homeland. The closer the carriers came to the Kola Peninsula, however, the easier it would be for waves of land-based, medium-range Soviet aircraft to find and attack them.[6] This posed a difficult tactical problem, for in the 1970s the Soviets were developing air-to-surface missiles that, delivered in repeated long-range attacks from multiple directions, were likely to inundate U.S. naval battle fleets.

The Navy's response was to extend its airpower-projection capabilities farther and to deploy multilayered defensive shields as far out from the aircraft carriers as possible. In the first case, to extend its power projection capabilities, the Navy bet on the A-12—a relatively long-range bomber designed to replace the A-6—and on long-range cruise missiles (the Long Range Cruise Stand-Off Weapon, for example). Neither bet paid off. Both programs were canceled in the late 1980s because of development delays, cost escalations, and premonitions of a Soviet collapse.

The Navy's efforts to push an effective defensive shield farther out from the carrier were far more successful. The undertaking involved capital investments in attack submarines, new carriers, Aegis-equipped surface ships, the F-14 long-range interceptor, and the F/A-18. It also involved an early information-technology "revolution" of sorts; though the post-Vietnam ship modernization and buildup tended to overshadow the fact, the Navy invested heavily in space-based communications and networked computers.

Much of the above architecture might have developed without a Maritime Strategy. Large, modern carriers, with their ability to carry and operate more aircraft, made sense economically. The buildup of attack submarines was directly linked to the growth of Soviet attack and ballistic missile submarine inventories from the 1970s onward. The Navy's growing capabilities in data linking and communications had been anticipated in the 1960s, at the height of, and in the context of, the Vietnam War. When all is said and done, however, it is hard to separate the Navy's procurement history from its parallel development of the Maritime Strategy. Whether the strategy drove procurement patterns or merely justified them, by the early 1980s the corporate Navy saw both elements as integral parts of a greater whole.

By 1994 the Navy was analytically rediscovering both how dangerous it would be to operate in the littorals, and how impressively combat power could be enhanced by the involvement of all the services.

Committed as it was to a forward strategy that would face formidable and numerous air threats, the Navy recognized the value of engaging those threats as far away from its battle groups as possible, before Soviet Tu-22M Backfire bombers could launch their missiles. But the farther out the shield extended, the more porous it became. That, in turn, dramatically increased the need for integrated cooperation and communication among the ships and aircraft, a need that supported the Navy's proposed Cooperative Engagement Concept. (The CEC, still in development, envisions the creation of a common "battlespace" picture by combining the separate radar and other sensor returns received by the aircraft and ships that make up a battle group.)

The idea of developing a common understanding of a highly complex military situation that encompassed a vast geographic area was, of course, not a revolutionary concept. But two aspects of the U.S. Navy's CEC efforts are worth noting. One was the increased importance the Navy put on space-based surveillance. The other lay in the beliefs and assumptions related to command and control that it developed on how to react to a common battlespace picture. In retrospect, the Navy's interest in both areas appears to have set the foundation for closer joint operational convergence with the Air Force.

If space-based communications had been a central Navy interest prior to the emergence of the Maritime Strategy, within that strategy the tactical necessity of extending an air defense shield beyond the horizon put a premium on this type of communication. (This remained true as the Navy began to build a common battlespace picture to link computers with data streams within its Cooperative Engagement Concept.) At the same time, the Maritime Strategy also elevated space-based surveillance from a "nice-to-have" operational adjunct to a key need, particularly as technical improvements in U.S. satellites in the 1980s offered near-real-time notification of Backfire takeoffs. Through the 1970s and 1980s, then, as the service-centric Maritime Strategy increasingly dominated Navy thinking and planning, it was also helping to construct a common interest area with the U.S. Air Force—in space-based surveillance and in the ability to track what other land-based air forces were doing.

In fact, by the outbreak of Operation DESERT STORM, the Navy had essentially committed itself to two "Air Force" notions. First, the type of battlespace awareness that matters most is that which allows one to focus on what an opposing air force is doing on and over its own territory. Second, in order to deal with this opposing force effectively, one needs centralized command. Now, decentralized operational command and control, of course, was deeply embedded within the U.S. Navy. The service had not only delegated decision-making authority to individual ships but had wrapped decentralization within its own culture and tradition. But as the Maritime Strategy took hold and communications improved, the Navy increasingly moved toward more centralized decision making, at least when it came to coordinating responses to air attacks. Its creation of "composite warfare commanders" for its carrier battle groups was a key milestone. Battle group commanders now had the authority to coordinate their groups' air defense assets as a whole. The doctrine also illustrated, in a small way, that the seeds of convergence lay within a Navy-centric strategy.

Meanwhile, the U.S. Air Force, long characterized by more centralized control, was moving toward convergence as well. The process started in the 1960s, partly driven by the strategic nuclear attack planning efforts tied to the Single Integrated Operations Plan. The Vietnam War, where the Air Force began to employ the centralized planning and coordination of attack, fighter, tanker, and rescue air operations that communications and radar tracking improvements made increasingly possible, helped push the service into the nonnuclear realm. The trend accelerated with the deployment of the Airborne Warning and Control System (AWACS) in the mid-1970s and with the emergence of AirLand Battle doctrine in Europe.

However, the limited types of conceptual convergence we have just described were outside the planning mainstreams of the Navy and Air Force for most of

the last thirty years. They made little progress toward creating "ties that bind"; from the end of the Vietnam War to at least the mid-1990s, the Air Force and the Navy simply thought about and operated within two separate conceptual worlds.

This division was not irrational. Implementing the Maritime Strategy had the practical effect of separating the focus of the Navy power projection from the focus of Air Force operations by over a thousand miles. This kind of geographical separation simply ruled out any concern with or interest in cross-service synergies at the operational or tactical levels. Indeed, the separation tended to promote the opposite effect and reinforce parochialism in both camps. To the Navy, for example, the prospect of operating on its own in the northern reaches of the Norwegian Sea (or off the Kamchatka Peninsula in the Pacific) allowed optimization for a conflict that would probably involve only two forces—those of the U.S. and Soviet navies. Over the years, that fundamental assumption affected a myriad of incremental decisions on weapon designs, stockpiles and logistics, and information and communications systems. As a result, fleet-defense "fire-and-forget" weapons increasingly became the weapons of choice. In planning scenarios uncomplicated by the presence of other services, allied forces, or nonbelligerents, the choice of such weapons was less hindered by concerns that once launched they might have unintended consequences.

The Air Force's current vision recognizes fully that the nation will always need the additional perspectives that come from the air, sea, and ground.

The Air Force, for its part, went down a different path. Its planning context was "denser"; its operating area was filled with a greater variety of forces. Allied aircraft, for example, would be in the air along with hostile ones. The AirLand Battle concept would require close Army–Air Force planning and coordination. Finally, the Air Force could not count on the presence or contributions of U.S. naval forces, nor would it have to worry much about what that service was doing a thousand miles to the north. These were just some of the givens that drove Air Force planning, acquisition, and operational doctrine for most of the last quarter of the twentieth century.

So it was that the Navy and Air Force's divergent planning contexts overshadowed their growing agreement in the areas of centralized command and control of air operations, and the utility of space-based communications and surveillance. In fact, one could argue that the divergent planning streams twisted the fragile agreement into competition. The Navy and Air Force were each moving toward greater centralized control, but only if that control was centralized under its own authority. Likewise, both agreed on the increasing utility of space-based communications and surveillance, but each demanded that its own

requirements be met first, and that it, and not the other service, be given authority to set priorities regarding space-based activities.

DESERT STORM AND THE RETURN TO CONVERGENCE

The effects of the Navy and Air Force's divergent planning paths became dramatically visible during the Gulf War, and they subsequently affected the Navy's future planning far more than they did that of the Air Force. This is probably because DESERT STORM fit the Air Force's planning approach much better than it did the Maritime Strategy, and because civilian and military leaders prevented the Navy from using its full arsenal of fire-and-forget weapons. (There were too many friendly and allied forces in the area, and naval aviation lacked some of the "identification friend or foe" capabilities of the Air Force.)[7]

The Gulf War, in short, was a "wake-up call" for the Navy. The Army and Air Force felt that their strategies and concepts of operations were largely vindicated.[8] This was less true inside the Navy, which came out of DESERT STORM with the sense not only that had it been overshadowed by the Air Force but that the strategic concept it had so carefully developed was essentially irrelevant. As a result, the Navy shifted toward a more "joint" posture—but so did the ever restless Air Force.

The Air Force's Transition to Jointness

Beginning in 1990, each of the military services published a series of "white papers" that provided "vectors" on how to deal with a new security environment and the consequences of the Gulf War. The Air Force published its initial white paper, "Global Reach—Global Power," in 1990. It argued that the United States was now able to strike anywhere in the world with precision, speed, and accuracy. In retrospect, the document was remarkable not only for its prescience but also for its advocacy of change. It anticipated replacing a cold-war Air Force—that is, a forward-stationed garrison force—with an expeditionary Air Force that operated globally out of the United States.

"Global Reach—Global Power" also recognized that expeditionary forces required new and higher levels of situational awareness. The challenge appeared simple—"If we're going to have fewer people based forward around the world, then we're going to have fewer eyes and ears out there, so we need to provide the national command authorities with worldwide situational awareness."[9] A partial answer, or so the white paper argued, was to accelerate America's interest in and use of space for communications and for intelligence collection, surveillance, and reconnaissance.

Late in 1996, the Air Force updated its vision. "Global Engagement: A Vision for the 21st Century Air Force" had a threefold significance. First, the document

asserted that the concepts outlined six years earlier in "Global Reach—Global Power" had proved more than mere rhetoric, that the U.S. Air Force had formally embedded them into its long-range planning process. Second, it stressed the growing importance of space in this process. Finally, "Global Engagement" spelled out what "expeditionary operations" truly mean.

These operations mean deploying more rather than less. They involve going, for particular tasks, anywhere in the world—as quickly as possible. They mean depending upon stealth technology, precision weapons, and space-based operations. In short, the Air Force had to become an aerospace force. It had to become faster, more potent, more accurate, and more effective in its use of force. It had to shift from a reliance on mass to a reliance on knowledge and information. In the end, the Air Force had to do these things because they were the essence of true expeditionary power.[10]

The Navy and Air Force were each moving toward greater centralized control, but only if that control was centralized under its own authority.

The most recent Air Force vision—"America's Air Force: Global Vigilance, Reach, and Power" (2000)—builds upon these themes. It emphasizes—yet again—the fundamental importance of space-based surveillance, command and control, and targeting in enhancing freedom of action and movement, and in preventing adversaries from interfering with U.S. operations. In the Air Force's case, this means that expeditionary aerospace operations will only be possible by compensating for the loss of an "on the scene" perspective with a perspective from space.

That, in turn, inevitably commits the Air Force to joint rather than independent operations. It is a matter of physics. By recognizing that forward-stationed U.S. forces are going to be increasingly vulnerable and sometimes even counterproductive, the Air Force's vision of global vigilance, reach, and power commits the service to building better situational awareness than could be garnered, or would be necessary, if one were already on the scene.[11] (For one thing, it is necessary to compensate for the time and distance involved in responding from the continental United States, if military force is to be used.) The view from space is probably essential if we are to deter or prevent errant behavior, for it represents, almost literally, high ground from which to perceive and understand phenomena spread across great expanses.

But if the perspective from space—generated by technology that allows us to observe, understand, and communicate—is vital, it is not sufficient. The Air Force's current vision recognizes fully that the nation will always need the additional perspectives that come from the air, sea, and ground, particularly if it wishes to deter undesirable events or respond to them from afar. Greater distance

means more time. More time means a greater need for precision, accuracy, and effectiveness in any use of force. Precision, accuracy, and effectiveness demand the best, most comprehensive situational awareness and actionable knowledge that can be obtained, from all sources. Together they give the United States the information edge that—along with stealth and precision—lies at the heart of the American revolution in military affairs and is the fulcrum of military superiority.

In summary, the last decade represents a clear progression for the Air Force and its vision. The journey included the limited use of stealthy and precise force in DESERT STORM, and its full use over Kosovo in Operation ALLIED FORCE (and, very recently, over Afghanistan). In the interim, the Air Force transformed itself from one of the most outspoken advocates of a specialized view of joint operations to a believer in synergy. It went from hinting that it alone could deal with most of the nation's military challenges to the conviction that its global, expeditionary forces will have to integrate improved technologies and situational awareness to enhance the military capabilities of the United States as a whole.

The Navy's Transition to Jointness

If DESERT STORM was an important milestone for the Air Force, it is difficult to exaggerate the impact the conflict had on the U.S. Navy. Within a year, the Navy's general planning context moved from sea control and the open oceans to littoral zones and the projection of power and influence over land. (To reinforce the point, consider the titles of the Navy's key white papers of the 1990s—". . . From the Sea," September 1992;[12] "Forward . . . from the Sea," 1994;[13] "Forward from the Sea: The Navy Operational Concept," 1997;[14] and "Forward from the Sea Anytime, Anywhere," 1998.[15])

Some of this transition almost certainly would have occurred even had there been no Gulf War, for by the early 1990s the Soviet Union was gone, and with it the perceived challenge to U.S. supremacy on the open seas. The early 1990s were also a time of declining budgets, and although General Colin Powell, then chairman of the Joint Chiefs, had proclaimed that cuts would be shared equally (in percentage terms) by all the military services, the Navy, like the Air Force, decided to promote a post–Cold War concept that justified at least a claim for increased budget shares.[16]

". . . From the Sea" argued that U.S. naval power provided presence, enhanced diplomatic contacts, reassured friends and allies, bolstered coalitions, and demonstrated power and resolve. It also argued that forward-deployed naval forces could accomplish their goals without extensive forward basing, which might not be easily available during peacetime. Finally, the white paper asserted, if military force had to be used, forward-deployed naval forces could bring their own joint

maritime, ground, and air power to the fight. The Navy, in short, basically claimed that the Navy–Marine Corps team, without any involvement from the other services, was capable of undertaking joint operations, at least in the world's littoral zones.

The Navy's argument was highly effective during the Defense Department's 1993 Bottom-Up Review, which attempted to set new force levels. While the review based most of the services' force requirements on hypothetical conflicts, it made an exception in the case of carrier battle groups, postulating that the value of naval peacetime presence was sufficient to warrant two groups beyond what conflict-based calculations indicated.

"Forward . . . from the Sea," however, retreated from the suggestion that the Navy was capable of handling most "joint" warfare demands by itself. Instead, it portrayed the service as a facilitator for joint operations—once it had cleared the way. The shift in emphasis may have been in response to the criticisms by the other services of the original white paper's claims. The Army, for example, had argued that naval presence offshore, even in littoral zones, had very little political-military leverage in peacetime until the Marines actually planted their "boots on the ground"—and if boots on the ground were the real gauge of leverage, the Army offered the greatest leverage of all. The Air Force, in contrast, had been less directly critical. It had agreed with the Navy's contention that the United States could achieve high political and deterrent leverage without necessarily having boots on the ground. But in the Air Force's view, what most concerned would-be challengers was what "Global Reach—Global Power" had emphasized, the ability to strike quickly over great distances with precision and accuracy. By that criterion the Air Force, not the Navy, was the service of choice.

From the end of the Vietnam War to at least the mid-1990s, the Air Force and the Navy simply thought about and operated within two separate conceptual worlds.

But there was more to the Navy's edging toward "jointness" than the sting of Army and Air Force criticisms. The very individual who had convinced Secretary of Defense Les Aspin that a naval force in excess of calculated warfighting requirements was justified—Vice Admiral William Owens, then the Deputy Chief of Naval Operations for Resources, Warfare Requirements, and Assessments—had also introduced a new, joint perspective into Navy force planning. The assessments undertaken at his direction pointed to dramatic increases in warfighting capabilities through joint theater ballistic missile defense and air strikes. In other words, by 1994 the Navy was analytically rediscovering both how dangerous it would be to operate in the littorals, relatively close to shore, and how impressively combat power could be enhanced by the involvement of

all the services. Both prospects influenced the way the Navy thought about future littoral operations.

Not surprisingly, then, "jointness" became a prominent subtheme of "Forward from the Sea: The Navy Operational Concept" and the 1998 posture statement "Forward from the Sea: Anytime, Anywhere." The posture statement, although it noted the Navy's unique capability to shape the peace and respond to challenges short of war, emphasized that "the Navy and Marine Corps . . . can integrate forces into any joint task force or allied coalition quickly" (by providing key command and control options).

CONCEPT CONVERGENCE OR "POLITICAL CORRECTNESS"?

By the late 1990s, then, both the Air Force and the Navy were seeing the virtues of joint operations, and in something like the same ways, whereas both services had begun the decade with what appeared to be assertions of exclusive primacy.

To put the matter another way, many observers and commentators had seen the Air Force's "Global Reach—Global Power" and the Navy's ". . . From the Sea" as seminal texts, both for the internal, service-specific adjustments they advocated and for the increased funding they potentially justified. The pundits also saw in "Global Reach—Global Power" the handiwork of long-range-attack advocates inside the Air Force, who were perhaps working at the expense of the tactical aviation community, which had provided many of the Air Force's leaders after Vietnam. To Navy watchers, ". . . From the Sea" marked a dramatic rise in Marine Corps influence within the naval services, and a concomitant rise of the countermine and amphibious warfare communities as well.[17] Ultimately, though, the two white papers of the early 1990s had agreed on a common general strategic context. The documents shared the perception that the world had changed profoundly, and would change further, because of the decline and collapse of the Soviet Union; both assumed that the structure and character of U.S. overseas deployments would change; and both pointed to shifts in the allocation of U.S. defense resources because of these changes. Where they disagreed, of course, was on which service should be the major beneficiary of any reallocations. "Jointness," in the context of asserting the respective service's primacy, was a secondary concern.

By the end of the decade, however, the official views of the two services had changed both in tone and in substance. While both services continued to assert their relative importance in the post–Cold War era, they had refined their arguments as to why. If their arguments at the beginning of the decade had essentially ignored the question of how the Air Force and Navy would operate in conjunction with the other services, by the end of the decade each was emphasizing how it could enhance joint operations.

But was the shift a result of logic embedded in the concepts the Navy and Air Force had developed in the last decade? Or was it still rhetorical, driven by the rising prominence of, and dedication and priority given to, joint operations outside the military services? Certainly, the decade of the 1990s saw "jointness" rise in the Defense Department as an increasingly important measure of effectiveness for combat operations and the allocation of resources. For example, *Joint Vision 2010,* issued by the chairman of the Joint Chiefs of Staff, established a general template for joint operations. The secretary of defense's annual posture statements increasingly focused on improved joint operational capability as a central criterion for evaluating the department's performance. No fewer than four major defense reviews trumpeted the importance of jointness in the post–Cold War world.[18] It is hardly surprising that the goals and directions articulated by the military services would adopt the value-laden terminology of the times.

What we had, therefore, were military services entering the information revolution, but mostly within themselves rather than between each other.

But a more detailed look at the operational concepts the Air Force and Navy were injecting into their own strategic planning reveals that their growing support for joint operations was more than expedient and political. The Navy's development of network-centric warfare is a case in point.

Network-centric warfare, as the Navy has developed it, grew in part from the Cooperative Engagement Concept described earlier. The essence of the concept was that merging different perspectives into common awareness provided a dramatically better way to deal with the complex problems now posed by warfare.[19] As the Navy improved its communications links and its computing power, Cooperative Engagement's advocates increasingly turned to network theory to help design modes of cooperation among ships and aircraft—or rather, the computers they carried—and measure how different approaches increased the overall effectiveness of fleet operations. As naval pragmatists applied network theory to solve the severe problems of defending a fleet, they hit upon the real power of networks—it was not the number of ships, aircraft, and other platforms that finally mattered but how those entities shared their capabilities.

Not surprisingly, then, by the time Robert Metcalfe (founder of the 3Com Corporation and designer of the Ethernet) formulated his "law"—that the utility of a network is proportional to the square of its nodes—the Navy was already seeking to apply the concept systematically. Today, the Navy's efforts are driving it toward joint operations for that very reason; if other service components become part of a larger, multinode network, the power of the joint force and its parts will increase exponentially. The growing availability of secure

communications links, for example, will allow the U.S. military to build the kind of joint force networks that promise to operationalize Metcalfe's Law. Once they are established, no amount of service parochialism is likely to be able to stand long in the way of this process.

TOWARD A SINGLE CONCEPT OF JOINT OPERATIONS

Until recently, there were two broad, and competing, views of how the U.S. military ought to think about, organize for, and conduct joint military operations. One argued in favor of functional specialization. That is, it suggested that while different force components could perform many of the same combat functions, the best way to conduct joint operations was to assign each function to the service component that was "best qualified" for it. The other view advocated synergy. It argued that because different force components could perform many of the same functions, the key to increasing combat effectiveness was to combine operational and tactical-level forces in ways that would result in higher combat output than would be generated by a single service. Much of the discussion on jointness in the 1990s was an esoteric debate between these two views—cloaked, of course, by a unanimous, prior, formal commitment to becoming more "joint."[20]

The discussion often relied upon a toolbox analogy. Yes, wrote the "specialists," joint commanders should choose the "right tool at the right time for the right job." If, for example, they required widespread, system-level bombardment, they might logically turn to the Air Force to accomplish the task and give the Air Force component commander carte blanche for planning and executing attacks. This was essentially the argument advanced by General Tony McPeak, then chief of staff of the Air Force, following DESERT STORM. The "synergists" also believed in the toolbox analogy, but they argued that the joint commander ought to build a customized "tool" for the job at hand (because no job is the same as its predecessors). The commander ought to create this tool by blending the desired elements from each of the services. This was essentially the argument Admiral William Owens, later vice chairman of the Joint Chiefs of Staff, advanced shortly after DESERT STORM. (Interestingly enough, there are echoes of both the specialist and synergist views in the "lessons learned" studies that emerged from Operation ALLIED FORCE, the seventy-three-day air campaign against Serbia.)

The above views of jointness are of more than academic interest, especially given the progress of the recent defense review. The schools of thought point logically to different operational command and control arrangements and to different resource allocations. Specialization, for example, takes advantage of inherent efficiencies in the integrated traditions, doctrines, discipline, service loyalties, and procedures of single institutions. Synergy, in contrast, blends

particular service strengths on a mission-by-mission basis to provide higher combat output than any single service could produce.

Pushed to its logical extreme, specialization ultimately argues in favor of a command and control system that keeps the responsibilities and operations of various service components distinct and separate. Service interaction, in this view, should be concerned largely with maintaining clear and distinct lines of authority. Each service will be able to do what it does best and worry less about what another service is doing. Yes, there is bound to be redundancy in such a system. The Army, Navy, and Air Force will need their own logistics, intelligence, communications, and other support units because of that very specialization. They will need to concentrate on honing their particular specialties and reinforce their distinctiveness to help avoid operational and command confusion in conflicts. But specialization will pay off in highly effective overall campaigns, so long as each of the services does what it does best and stays out of the others' way.

Improbable? Certainly, but extending the logic of synergism leads to unreasonable conclusions of its own. The point is that as long as these two views contended for dominance, it was hard to agree on the practical and objective meaning of jointness. This disagreement appeared across a wide range of military interests. For example, it affected views of what joint experimentation really entails—whether dealing only with activities that lie outside the purview of the military services, or getting the services to work together more synergistically. Further, it made unclear what the Joint Requirements Oversight Council is supposed to do (that is, trading off roles, responsibilities, and resources across the services, or defining the sum of individual service desires). In short, the disagreement in the 1990s as to what jointness really implies was one of the major reasons the United States has been slow to transform its military forces, despite rhetorical claims otherwise.[21]

Given the trends we have identified, however, we predict the triumph of the synergistic view of jointness over the next year, particularly where the Navy and Air Force are concerned. The result will be the closing of a promise-reality gap, in terms of jointness, that has existed for far too long. The benefit will be effects-based capabilities that are good for our regional commanders in chief and right for our nation.

NOTES

1. See, for example, Philip A. Odeen et al., *Transforming Defense: National Security in the 21st Century,* Report of the National Defense Panel (Washington, D.C.: U.S. Govt. Print. Off., 1 December 1997), pp. 83–7; William Owens, *Lifting the Fog of War* (New York: Farrar, Straus, and Giroux, 2000), pp. 218–30.

2. The military power inherent in the information revolution comes from "bits"—the underlying electronic representation of data. Sensors generate bits, communications channels transmit bits, computers process bits, commanders act on information represented as bits, and weapons are directed by messages composed of bits. But to interoperate effectively, systems must be able not only to exchange relevant bit streams but also to interpret the bits they exchange according to consistent definitions—merely providing information in digital form does not necessarily mean that it can be readily shared. Interoperability also requires that systems be interoperable at the data level—that the format and semantics of the data be coordinated so as to permit interoperation. Technical interoperability places detailed demands at multiple levels, which range from physical interconnection to correct interpretation by applications of data that is provided by other applications. In 1990, the capability of U.S. forces in this respect was rudimentary.
3. "Layering" involves separating bit-transport technologies, transport protocol, and applications. It facilitates making C4I (command, control, communications, computers, and intelligence) systems interoperable in the presence of rapidly changing technologies and multiple technology choices. Layering makes it possible to tie different C4ISR (C4I plus surveillance and reconnaissance) systems together without losing technology independence, scalability, decentralized operation, appropriate architecture and supporting standards, security, or flexibility. In other words, it is able to compensate for the heterogeneity among the systems across the different services.
4. For detailed assessments to back up the claim of a qualitative technical change over the last decade, see, for example, National Research Council, National Academy of Sciences, *Realizing the Potential of C4I* (Washington, D.C.: National Academy Press, 1999); Office of the Inspector General, *Implementation of the DoD Joint Technical Architecture* (Washington, D.C.: Dept. of Defense, 1998); Government Accounting Office [GAO], *Joint Military Operations: Weaknesses in DoD's Processes for Certifying C4I Systems Interoperability*, GAO/NSAID-98-31 (Washington, D.C.: GAO, 1998); Defense Information Support Agency, *Joint Warrior Interoperability Demonstration, 1996 Demonstration* (Alexandria, Va.: DISA, 1996).
5. For the Maritime Strategy in its fully developed form, see James D. Watkins [Adm., USN], "The Maritime Strategy," U.S. Naval Institute *Proceedings,* Maritime Strategy Supplement, January 1986.
6. The rise of Soviet naval aviation in the 1960s was triggered by the transfer of Tu-16 Badger bombers from Soviet Long-Range Aviation to the Northern Fleet. The Northern Fleet armed the Tu-16s with a series of antishipping air-to-surface missiles through the 1960s. In the mid-1960s, the Soviets began development of the first medium-range bomber designed specifically for maritime strike and reconnaissance—the Tu-22M Backfire. The first prototype flew in 1969, but problems with its low-level performance led to significant modifications and the emergence of the Backfire-B in the mid-1970s. The Backfire-B became the subject of considerable U.S. public debate in the late 1970s and during the 1980s because of its potential strategic nuclear strike capabilities against American territory. But its greatest impact on U.S. military planning, at least so far as the Navy was concerned, focused on the threat the aircraft posed to the Maritime Strategy.
7. These factors required Navy F-14s to obtain visual confirmation of targets before they could engage them, in effect negating the long-standoff capabilities of the Phoenix missiles.
8. DESERT STORM did not conform entirely to the framework the Army and Air Force had been developing under the rubric of the AirLand Battle. But the campaign highlighted the Army's decision after Vietnam to build a heavy, highly mobile ground force able to wage a war of maneuver against a Soviet–designed and equipped army. The Army leaders who fought the Gulf War had been in the generation of junior and field-grade officers who developed the all-volunteer force and brought it back from the disarray of the late Vietnam, early post-Vietnam period. They were justifiably proud of the hundred-hour ground campaign that wrapped up the Iraqi ground forces in Kuwait. In the Air Force's case, the success of the air campaign and the

demonstration of the effectiveness of precision-guided munitions bolstered the arguments highlighting the potency of airpower, long pronounced by Air Force theorists.

9. Ronald Fogleman [Gen., USAF], speech delivered at the Defense Forum Foundation, Washington, D.C., 24 January 1997.

10. As an aside, it is noteworthy that *Global Engagement* generated considerable discussion in the 1997 Quadrennial Defense Review, particularly over what came to be called the "rapid-halt debate." The debate emerged from the Air Force's belief that airpower based in the United States could provide enough force, fast enough, to halt military aggression anywhere in the world. This was *not* a claim that airpower alone could win any military conflict. It was rather an argument about timing. Air Force spokesmen maintained that U.S. airpower could halt aggression before opponents achieved their objectives, and that it could reduce their strength sufficiently to end a conflict relatively early, and with smaller U.S. ground forces. In the heat of the 1997 Quadrennial Defense Review, however, spokesmen from the other services misinterpreted the Air Force's argument. They sometimes claimed that airmen were proclaiming the irrelevance of U.S. ground and naval forces and casting, yet again, a covetous eye on a larger share of the defense budget.

11. In the absence of a military threat that justifies their permanent presence, stationing U.S. forces on the territory of other nations necessarily increases their suspicions U.S. motives. The skepticism may be muted, rationalized, balanced rhetorically, ignored officially, or seen as the price of diplomatic gain. But without a military reason, shared by the host nation, for stationing U.S. military forces on its territory, the initial solace will be replaced by suspicion.

12. Sean O'Keefe, Frank B. Kelso, and Carl E. Mundy, Jr., "*. . . From the Sea": Preparing the Naval Service for the 21st Century* (Washington, D.C.: U.S. Dept. of the Navy, September 1992).

13. John H. Dalton, J. M. Boorda, and Carl E. Mundy, Jr., *Forward . . . from the Sea* (Washington, D.C.: Dept. of the Navy, 1994).

14. Jay L. Johnson, *Forward from the Sea: The Navy Operational Concept* (Washington, D.C.: Dept. of the Navy, 1997).

15. John H. Dalton, Jay L. Johnson, Charles C. Krulak, *Forward from the Sea . . . Anytime, Anywhere: Department of the Navy 1998 Posture Statement* (Washington, D.C.: Dept. of the Navy, 1998).

16. For an excellent overview of Navy thinking in the 1990s see Edward Rhodes, "From the Sea and Back Again: Naval Power in the Second American Century," *Naval War College Review,* Spring 1999, pp. 13–54.

17. Rhodes points out that "in one sense this is simply a logical corollary of the basic conception of a littoral strategy: if the point of naval power is to project force ashore, Marines are a critical element. It is, however, remarkable in two regards. In the first place, this marriage gave unprecedented prestige and power to the Marine Corps; the Navy was acknowledging the Corps as at least an equal partner, and possibly as the critical partner, in naval operations. The Marines represented the point of the Navy's spear. In the second place, this conception of 'joint' operations ignored the Army and Air Force. The Navy was thus essentially making the claim that the Navy–Marine Corps team, without any involvement of the other services, was capable of undertaking the joint operations, or at least the joint operations in the world's littoral, that would be demanded by national decision makers. Thus while the Navy conceded a remarkable degree of its autonomy, it conceded it only to the Corps." Rhodes, p. 19.

18. Commission on Roles and Missions of the Armed Forces, *Directions for Defense* (Washington, D.C.: U.S. Govt. Print. Off., 1993); and William S. Cohen, *Report on the Quadrennial Defense Review* (Washington, D.C.: U.S. Govt. Print. Off., May 1997); both available on *Military Analysis Network*, http://sun00781.dn.net/man/docs/index.html. See also the 1993 Bottom-Up Review, available on the *Military Analysis Network* Website, and Odeen et al.

19. Much of this brief overview is drawn from Naval Studies Board, National Research Council, *Network Centric Warfare* (Washington, D.C.: National Academy Press, 2000).

20. William A. Owens, "Living Jointness," *Joint Force Quarterly,* Winter 1993–94, pp. 7–14.

21. See Thomas G. Mahnken, "Transforming the U.S. Armed Forces: Rhetoric or Reality?" *Naval War College Review,* Summer 2001, pp. 85–99.

The Honorable George Bush, born in 1924, became in June 1943 the U.S. Navy's youngest commissioned pilot. Assigned to the aircraft carrier USS San Jacinto *(CVL 30) in the Pacific, he flew fifty-eight combat missions and earned the Distinguished Flying Cross for "heroism and extraordinary achievement."*

Graduating Phi Beta Kappa from Yale University in 1948, he entered the oil business. In 1963 he was elected chairman of the Harris County (Texas) Republican Party and in 1966 to the U.S. House of Representatives from Texas's Seventh District, serving two terms. Thereafter Mr. Bush was appointed U.S. ambassador to the United Nations (1971), chairman of the Republican National Committee (1973), chief of the U.S. Liaison Office in China (1974), and Director of Central Intelligence (1976).

In 1980 he became vice president of the United States, and in 1988 the forty-first president of the United States. Since leaving office, President Bush has coauthored (with General Brent Scowcroft) A World Transformed *and has published his correspondence, in* All the Best. *President Bush serves on the Board of Visitors of M. D. Anderson Cancer Center in Houston, Texas, and is honorary chairman of the Points of Light Foundation.*

These remarks are adapted from a commencement address delivered on 15 June 2001 to the Naval War College graduating class of 2001.

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"A NATION BLESSED"

The Honorable George Bush

A little over a decade ago, a true revolution in world affairs took place. The Soviet Union imploded; the Baltic States and the captive nations of Eastern Europe were freed. Then, when Iraq invaded Kuwait, the world made a very important statement in coming together to see that that aggression would not stand. Such a revolution required a fundamental rethinking of the role of the United States in world affairs and of the nature of warfare in a radically transformed military environment. The Gulf War forced us to face up to this revolution, this transformation, almost before we knew it was upon us.

We did not know it at the time, but the Gulf War was in many respects a preview of things to come. It's hard to remember how surprising it was in 1990 when the Soviet Union stood with us in condemning Iraqi aggression and actually voted with the United States in the United Nations to condemn Iraq. This remarkable development was absolutely crucial to our strategy in dealing with that situation. It also raised the possibility of a new world order, and I think it stemmed from the way we managed the winding-down of the Cold War.

You may recall that when the Berlin Wall came down in 1989, one of the leading television commentators asked me, "Why, Mr. President, do you not show the emotion the American people feel and go to the Wall and dance with those students, as the leaders in Congress are urging you to do?" That might have been the stupidest thing an American president could have done—to tweak Mikhail Gorbachev's nose when things were moving peacefully toward the reunification of Germany. So we didn't do that kind of thing.

Consequently, a year later, in the matter of Iraq, the Soviet Union voted with us in the Security Council. (China abstained—and we had to work very hard to induce the Chinese to do that.) The Soviet Union's vote in the Security Council

was indispensable; it implied a world in which the great powers would stand together against international aggression—a world in which the United Nations could undertake to protect world peace as its founders had envisioned in 1945, a world that was more democratic, and a world that had more market economies.

This vision was not fully achieved while I was president—though we went a long way toward it—but the world order today is in fact completely new. The "new world order" we strove for does not mean putting everything under the United Nations or surrendering an ounce of sovereignty; it means working cooperatively with other countries so there would be more democracy, more market economies, more freedom.

The Gulf War taught us several lessons about the use and limits of American military power in the post–Cold War world. It might be instructive to recount some of the features of our strategy for that war and some of the lessons we learned then—lessons that perhaps are taught today in our war colleges.

To begin with, we knew immediately, almost instinctively, that our response to Saddam Hussein could not and should not be unilateral. We felt—I was blessed with a wonderful team of people to help me make these decisions—from the very beginning that we could not do it alone. We had the military force to do it alone, but we needed other countries with us.

So we went forward. We asked Kuwait to take the issue to the United Nations Security Council. We ourselves went to Nato to explain what we would have to do. Richard Cheney, the secretary of defense, and General Colin Powell, the chairman of the Joint Chiefs of Staff, went to Saudi Arabia. They asked the Saudis to do something that was almost impossible, culturally, for them to do, but that they knew was in their own interest—to accept the deployment of U.S. forces into the kingdom itself. We urged others to join us in a military coalition. Eventually thirty-one nations did, and many other nations agreed to support us in nonmilitary ways.

Our first step was to isolate Iraq, isolate Saddam Hussein, by blockade and sanctions. The United States, Britain, and France did most of the "heavy lifting" in the actual interception of ships. I will never forget the day in the Oval Office the White House staff told me that the maritime interception force intended, because of persuasive intelligence we had, to permit a ship then in the Gulf of Oman to return to Aden without being inspected. Someone asked, "Well, who's going to tell Margaret Thatcher [the British prime minister] that we're not going to inspect every ship? We told her we would inspect every ship." I looked around for volunteers; no hands went up. So I called Margaret Thatcher myself. I told her that we were going to let this particular ship turn around—to violate the fundamental rule of inspecting all of them—and I told her the intelligence information that led us to do that. I will never forget Margaret's words: "George,

that's fine with me. But this is no time to go wobbly." (There was never any question that Margaret Thatcher might "go wobbly" herself, I might add.)

Our strategy was to build a grand coalition—although doing so would complicate our own military operations—and (this was absolutely critical) not let Saddam link the Gulf crisis to the Israeli/Palestinian issue. To do that, we had to build a network of United Nations resolutions to solidify the world community in support, and to give legitimacy to what I knew early on we were going to have to do. We evaluated each action in terms of its suitability as a model for the future. Further, we had to keep the Soviets on board—although the Soviets' major client in the Mideast was Iraq, and there were many Soviet citizens there, including military advisers.

My approach to dealing with the military was that the White House would take care of the politics and define the mission—and then get out of the way.

One of our biggest tasks was to get to the region military strength adequate for any contingency. There was a huge movement of forces. I remember a meeting at Camp David, Maryland, in October—Congress was fortunately out of session then. General Powell and General Norman Schwarzkopf, the commander in chief of Central Command, told me, in effect, "Mr. President, if you want to do this right, if you want to use sufficient military strength, if you want to guarantee to yourself and more importantly to the nation that we will reduce the risk to every single soldier, sailor, Marine, and airman, you have got to double the force." We had 250,000 at the time; that meant five hundred thousand. I said, "You've got it." One of the nice things about being president is that you can make decisions like that without having to go to Congress. It might clobber you when its members come back to town, but we did it, we doubled the force. We sent half a million Americans to serve their country halfway around the world.

We had to keep the coalition together in the United Nations, and that was not easy. It got even harder later, when the Iraqis fired Scud missiles into Israel; it was absolutely essential for us to go the extra mile diplomatically to make sure that Israel would not get involved. That was asking a great deal of the Israelis—missiles were falling on them—but if they had entered the war, it would have been impossible to hold the coalition together. On the other hand, Israel at one point asked for the "identification friend or foe" codes that would allow its aircraft to fly over Jordan and Saudi Arabia. We said no; our Air Force aircrews and naval aviators would do the job. Again, it was a hard sell, but to their credit as friends and allies, they stood down.

We sought and received from the UN Security Council a resolution—Resolution 678 of 29 November 1990—authorizing "all necessary means" to enforce previous council resolutions condemning the invasion if peaceful means failed

and Iraq did not withdraw from Kuwait by 15 January 1991. We also had to go to the Congress for legislation giving the president authority to use whatever means were necessary to end the aggression. That was not easy, and the final vote—fifty-three to forty-seven—was more or less on party lines.

In our buildup of forces, we were fortunate to have strength in Europe, ready for combat. Some of those forces could now be spared from Europe, because the threat from the Soviet Union and Warsaw Pact had sharply diminished. This was a fortunate set of circumstances that I frankly do not think that anyone who commands large operations in the future will be able to depend on.

It is worth emphasizing, given our success and what time does to memory, that the victory we achieved was not assured from the beginning. I'm sure that many remember Saddam Hussein's promises of trenches of fire and the "mother of all battles," and how the horrors of war were brought to the minds of the American people by a vigorously anti-action press. We had to convince the American people that we might have to fight. Also, the coalition was in constant need of tending. Saddam might stir up radicals in the Arab world; time was not on our side. It took many presidential telephone calls and much hand-holding. I ran up a huge phone bill, but the time, effort, and diplomacy we invested overseas paid off, especially in the United Nations, which proved remarkably supportive on resolutions.

I confess, however, that there were difficulties with Congress. I can understand why they did not want to authorize the use of force in the beginning—why, with the memories of Vietnam, they did not want to make the kind of military commitment that eventually we had to make. Congress supported the early defensive measures, but it parted company with me on using offensive means to end this aggression. It wanted to let sanctions work. We tried that for a long time—but sanctions did not do the job. In the background were constitutional questions that concerned us: should we ask for a declaration of war, or simply commit our forces to battle, as had happened many times in the past? When Congress passed its resolution, that ceased to be a major problem.

The war itself was a triumph of "smart" technology. The minute they turned to the intelligence channel—that would be CNN—everyone in America knew that this time the "smart bombs" really were smart, that the motivation of our Navy and Air Force pilots was unlike anything seen in recent years, that the military "had it together."

My approach to dealing with the military was that the White House would take care of the politics, diplomacy, and the United Nations, and if we had to fight, it would define the mission—and then get out of the way and let the military fight and win the war. That is exactly what happened. So the war was also a triumph of military training, coupled with leadership—in a sense, the product

of schools like the Naval War College. The result was a hundred-hour ground war, with few casualties—although like any president I was concerned about the loss of every single life. Only the commander in chief, the president, can commit people to battle, send somebody else's son or daughter into harm's way. In DESERT STORM the military made it look effortless—though, of course, it was not.

Military operations moved so fast that we did not completely devastate Iraq's Republican Guard divisions. The question is understandably asked, did we stop too soon? My answer is and will always be, no. We had defined the mission: it was not to kill Saddam Hussein; it was certainly not to occupy an Arab nation; it was to end the aggression against Kuwait. We had tried to do it peacefully; when that failed, we ended it militarily, with the cooperation of many countries. If I had told General Schwarzkopf to send the 82d Airborne Division rolling into Baghdad, we would have become an occupying power in an Arab land. The coalition would have shattered instantly; only a handful of nations would have stayed. We would have made a hero out of a brutal dictator. The Madrid Conference, in which Arabs and Israelis sat down with each other for the first time, would never have started.

The coalition was in constant need of tending; time was not on our side. It took many presidential telephone calls, but the time, effort, and diplomacy we invested overseas paid off.

Some argue that if we had kept going only twenty-four hours more, we could have wiped out another, say, fifty thousand Iraqis fleeing on the "highway of death." The American military and the president of the United States do not measure success by how many people are killed, but by whether the mission has been completed. In this war—unlike Vietnam—we had a defined mission, and we carried it out.

Looking back, in what sense was the Gulf War a "preview of coming attractions"? What lessons did we learn? First, and most obviously, the end of the Cold War did not mean the end of threats to American interests or to international peace and security. If we take our security for granted, we do so at our own peril.

Second, American leadership remains absolutely indispensable. I say this with respect to all from abroad, but it is true—we are a nation blessed. If we do not act and lead, no one can or will take our place.

However, and third, though we are the world's only remaining superpower, we should not act unilaterally; in most cases we could not, even if we were so inclined. We have to make friends and allies whenever we can, and bring them along with us; if we have to fight, we will have people at our side. But we must *persuade* others to follow; we cannot command their participation—the national and presidential leadership studied in war colleges is hard and unrelenting work.

Fourth, the United Nations can be an invaluable foreign policy tool, but only if we invest the time and effort to make it so. We must not expect the United Nations to do things that it is not prepared to do, and we must resist the temptation to use it as a whipping-boy or a dumping ground for messy problems.

Fifth, we have the best-trained, best-equipped, and best-led forces, with the most technologically advanced weapon systems, in the entire world—yet that does not change the fact that war is a deadly business. If we pursue a "zero-casualty doctrine," a policy of "immaculate coercion," we will find ourselves unable to employ military force wisely or effectively in the service of American interests.

These are some of the lessons that I learned during that historic time. I am very proud to have been your commander in chief—the only thing I miss about being president is dealing with our superb military. Thank you all very much, and God bless you.

SET AND DRIFT

THE TALE OF THE RED KNIGHT

Rear Admiral James Stavridis, U.S. Navy

Let me begin with a story.

Once upon a time, a mighty king held a banquet at his great court in central Europe. He had worked very hard over the previous decade to gather a superb collection of loyal knights. One evening, a particularly enthusiastic and powerful knight clad in red armor returned to the king's castle after several months away, the marks of much battle apparent on his armor.

The Red Knight presented himself to the king before all in the court. The king was pleased with the obvious efforts of the Red Knight and immediately asked him where he had been fighting. The Red Knight leaned on his sword and proudly said, "My Lord, I have been fighting in the west, laying waste to the enemies of the king!"

The king pondered this for a moment, looking around the great hall, then replied in a puzzled voice, "But good sir knight, I don't have any enemies in the west."

The Red Knight thought about that, straightened up, saluted the king, and said, "Well, sire, I think you do now."

This is a wonderful story, with a variety of lessons about the enthusiasm of subordinates, the importance of geopolitics, and perhaps even court etiquette, but I would like to focus on a different aspect of the story—"civil-military relations."

Rear Admiral Stavridis, a 1976 graduate of the U.S. Naval Academy, holds a Ph.D. in international affairs from The Fletcher School of Law and Diplomacy, Tufts University. He was commander of USS Barry *(DDG 52) and Destroyer Squadron 21. He served ashore as executive assistant to the Secretary of the Navy and chief of the Policy Branch on the Joint Staff, J-5. Admiral Stavridis is currently Deputy Director for Requirements on the Navy Staff, N81.*

Over the past several years, much has been written in the general press, books, academic journals, and specialized defense literature popularizing the theory that there is an increasing gap between civilian and military sectors in U.S. society. It is an important subject with implications for both society in general and the military in particular.

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Interestingly, the entire subject of civil-military relations has a long history of discussion in the United States, one that is reflected not only in scholarly theory but also in popular culture. Books like *Seven Days in May* (1962) by Fletcher Knebel and Charles Bailey II, *Guard of Honor* (1998) by James Gould Cozzens, and the recently published *A Soldier's Duty* (2001) by Tom Ricks come to mind, as well as three recent films, *No Way Out, G.I. Jane,* and *A Few Good Men*.

A variety of scholarship exists on the subject. Samuel P. Huntington wrote the classic, *The Soldier and the State*.[1] In it, he focuses on the relationship between "two active directing elements" in the military and society at large—the officer corps and the state. Huntington finds the military ethic realistic and conservative, stressing the supremacy of society over the individual and "the importance of order, hierarchy, and the division of function."[2] On the other hand, the civilian outlook in America tends to emphasize individuality and initiative in a loosely joined heterogeneous whole.[3] Clearly, there is potential for conflict and miscommunication between civilian and military actors in our society.

One sociologist who has taken a broad look at how societies are structured is Jane Jacobs. Her *Systems of Survival* identifies two structural approaches in society—one facilitates governance and exhibits a "guardian" culture, and the other facilitates commerce and displays a "trader" culture. Essentially, her theory is that many actors in a society function as either "guardians" or "traders."

Guardianship evolves from the very human tendency to protect territory. Jacobs argues that the guardians in a society—the police, firefighters, politicians, teachers, and the military, for example—have a basic need for boundaries, stemming from their desire to distinguish between insiders and outsiders. In such a culture we find clear rules of conduct, a code that requires adherence to those rules, and an appreciation for respect and authority. The guardian code, according to Jacobs, includes exhortations to shun trading, exert prowess, be obedient and disciplined, adhere to tradition, respect hierarchy, be loyal, show fortitude, and treasure honor.[4]

On the other hand, traders—largely encompassing the rest of society—are less concerned about boundaries. In fact, the commercial world usually acts to reduce barriers and enhance the opportunities for trade. A trader will welcome knowns and unknowns alike into the shop. What matters most is selling. Traders include businessmen, merchants, producers of goods and services, entertainers, and entrepreneurs. Their moral code, according to Jacobs, emphasizes honesty, competition, thrift, optimism, initiative and enterprise, inventiveness and novelty; traders wish to shun force, come to voluntary agreements, respect contracts, collaborate easily with strangers, and promote comfort and convenience.[5]

Clearly, the differences between guardians and traders in a society create contrasting views of how the world should be structured. All societies face this kind

of division, and they have dealt with it in a variety of ways. Looking back over history, it appears there are three basic models of the civil-military relationship.

The first model might be termed "military dominated." In such a construct, the guardians—in this case the military—hold the greatest influence in the society. Historical examples include, most famously, Sparta in the Hellenic era. Many other examples exist, of course, among the praetorian societies of Europe, Asia, and South America. In the modern era, the Soviet Union was to some extent dominated by the military, although individual civilians tended to use the military instrument to further their personal and political agendas rather than creating a culture of pure military domination. During the post–World War II period, many Latin American, African, and Asian dictatorships were essentially military dominated as well. Certainly there can be various levels of military domination within a society, from military influence with civilian control, through extensive military participation, to military control, either with or without partners from the civilian sector.[6]

A second model around which some societies have developed the relationship of the military and civilian sectors might be termed that of the "citizen-soldier." In this construct, military forces are largely made up of citizens who leave their ploughs, so to speak, and report for combat when required to fight for the state. The Athenian society during the mid-Hellenic period offered such a structure. Other examples include the early Roman republic, the United States in its colonial era, and Switzerland today. This construct generally has been found in smaller states with democratic ideals.

A third model could be termed "separate camps." This approach consists of military forces that are professional in nature but are somewhat fenced off from the larger society. While not disenfranchised or disadvantaged, they certainly do not dominate or direct the activities of society. The military has only slight influence in the affairs of the society it protects. Examples might include the British Empire in the nineteenth century or many modern European military forces today.

In assessing the relative value of each of these models, curiously, the greatest strength also tends to create the greatest weakness.

The great strength of a "military-dominated" society is its military readiness and combat power. Yet the rigidity of the military culture generally leads to totalitarianism (Sparta and the Soviet Union spring to mind) and a concomitant downward spiral in mercantile activity. Economic problems tend to lead to the eventual unraveling of the international position of the state and the collapse of the internal political system.

In the "citizen-soldier" model, there is exceptional balance between the military and civil sides of society, generally strengthening democratic norms and

processes. But there is a trade-off in combat capability and power because farmers and merchants are not always effective as part-time warriors. Military unpreparedness can then lead to the rise of "the man on horseback," usually a dictator. This type of individual is capable of dominating the society and destroying democratic norms, as was the case in early Rome and in many weaker, loosely organized states in the post–World War II period.[7]

The world of "separate camps" holds promise and can create an effective compromise position, but there seems to be a growing gap between the two camps in many societies today, which can often lead to misunderstanding, political turmoil, and other tension. It can also make it increasingly arduous to recruit and retain men and women to serve in what is perceived as a very separate and difficult world.

Huntington, writing with retired Army general Andrew Goodpaster, has identified three theoretical options for civil-military relations in a society: extirpation, transmutation, and toleration. Extirpation so reduces the power of the military that it exists at the edge of a society; the two sectors rarely come in contact. Transmutation requires the military to morph, essentially becoming more liberal, more fully in synch with society. Finally, toleration entails that the values of society shifting from liberalism toward those of the more conservative military. In U.S. history, there have been periods in which each of these solutions has manifested itself.[8]

So where does America stand today, and for what should it strive?

There is less of a gap between civilian and military sectors in our society today than many pundits and observers think. Nevertheless, there are, and need to be, differences.

The best approach for the United States would be to have what might be termed a "permeable membrane" between its civil and military worlds. Such an arrangement would permit a free and steady flow of individuals between both worlds, who would encourage the exchange of ideas, creating a balance between traditional military conservatism and a more liberal society at large. Also necessary in this approach would be "translators," who can explain military culture to civilians and vice versa. Such translators could be individuals, organizations, and other informational mechanisms, such as publications, Websites, and exhibits.

In terms of flow between the two sectors of society, the all-volunteer force brings nearly two hundred thousand young men and women into the military service every year. About two-thirds return to civilian life after five years—a good thing, by and large. The vast majority take back with them much of what is thought of as the "good things" the military instills in its people: self-confidence, discipline, teamwork, and an equitable approach to race relations.[9]

Of course, one must recognize that although two hundred thousand sounds like a large number, more than four million Americans turn eighteen every year, so in the end only one in twenty serve.[10] When compared with the United States fifty years ago, as the Korean War was ending, the contrast in numbers is startling. In 1954 more than half of all living American males had served in the military.

Given this dramatic reduction in the proportion of citizens with firsthand experience in the military, it seems clear that the United States must work hard to improve the permeability of the membrane between both sides of society while doing all it can to facilitate translators. Doing so will sustain the most fundamental and important aspect of the civil-military relationship, which is civilian control of the military. It will also permit the flow of values between the two. From the military can come the benefits of teamwork over prejudice, the values of self-discipline over hedonism, and the satisfaction of service before self; from the civilian community, the achievements of personal initiative, the satisfactions of a good life well lived, and the glories of individual liberty.

So the questions are: how can the United States facilitate such a "permeable membrane," and how can we improve, at the same time, mechanisms of translation so that the cultural and moral strengths of each sector are meaningfully explained to the other?

First, we need people who can explain to those in uniform the essence of current civilian perspectives. These individuals are generally civilians operating within the Department of Defense who work at all levels in the bureaucracy. The Secretary of Defense and the leadership in the Pentagon spend a good deal of their time doing this kind of translation. Many elected officials on Capitol Hill and their staffs are involved in the same efforts.

Conversely, and at least as important, we need people who can present the values that strengthen the very structure and substance of an effective fighting force. Representatives must explain why these different—not "better," not "higher"—qualities are required and appropriate in the American armed forces. Some senior military personnel are involved in this process in formal ways—giving speeches, writing articles, and offering testimony. There is an important role here for those in academe, particularly those on the distinguished faculties of various war colleges and military academies around the country. Finally, this call for greater representation of civilian and military perspectives recognizes and applauds the enormous amount of informal translation that occurs in the day-to-day interaction of military and civilian citizens in their homes and civic organizations. Today, however, we need more, because the military itself is becoming notably smaller, more geographically concentrated, more economically homogeneous, and more politically uniform.

This also implies that American service members should participate more fully in civilian society through voluntary service, exchanges with schools, home ownership, civic participation, and savings. The opportunities are rife. Many military commands now give various forms of recognition to service members who do volunteer work. Some commands have formal programs, such as helping a school with tutors, mentors, and coaches.

An additional approach would be to encourage private civic organizations that facilitate translation in the accomplishment of their mission. Each of the services is supported by comparable organizations that are well positioned to function as part of the effort to create meaningful communication between the military and society. Additionally, various organizations that support retired military personnel and veterans have a positive role to play.

Certainly the national and state Guard organizations and the various reserve units also have an important function here, both in facilitating the flow of personnel between both sectors and in providing communication between them. The close relationship between the Guard, the reserves, and Capitol Hill can pay big dividends to our society.

Programs that put retired service members in the schools as teachers by waiving certain formal teaching requirements are an exceptional means to help keep the civilian and military sectors aligned in our country. While this must be done carefully to ensure only qualified individuals are selected, there are clearly many in the services with exceptional teaching credentials based on their experiences in uniform. We should tap into this national resource and put such people in a position to help large groups of young people while also facilitating their better understanding of the military.

Resources and command attention on public affairs functions of the military should be increased. Within the Department of Defense today, we do a reasonably good job of telling the military's story to the larger civilian sector, but we could do better. Some privatization would be helpful, and "information campaigns" would also help our fellow citizens understand what their military does, how it does it, and why.

Let me close by going back to the Red Knight. Like the U.S. military of today, he was full of enthusiasm and sure of his purpose. However, the king in our story did not have control of the knight, probably through his lack of understanding, or a tendency not to pay close attention, or perhaps a narrowness of experience. In our story, the Red Knight did what militaries are trained to do, and a disaster ensued. The United States must be a country whose knights are fundamentally part of the fabric of society. When they fight, they do so with the knowledge, support, and understanding of those who govern—the people. Only by ensuring that the United States maintains a constant flow of people and ideas between our

civilian society and our military, and that the two sides understand each other, will this nation be able to guarantee that it has established the best possible level of civil-military relations.

NOTES

1. Samuel Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge, Mass.: Harvard Univ. Press, 1957).
2. Ibid., p. 79.
3. Ibid., pp. 144–61.
4. Jane Jacobs, *Systems of Survival: A Dialogue on the Moral Foundations of Commerce and Politics* (New York: Random House, 1992).
5. Ibid., p. 24.
6. Claude Welch, *Civilian Control of the Military* (New York: State Univ. of New York Press, 1976), p. 3.
7. S. E. Finer, *The Man on Horseback* (New York: Praeger, 1962).
8. Andrew Goodpaster and Samuel Huntington, *Civil-Military Relations* (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1977), pp. 7–13.
9. Richard Danzig, Secretary of the Navy, speech to Reed College, May 2000.
10. Ibid.

IN MY VIEW

THE AIR FORCE IS ALREADY TRANSFORMED

Sir:

Transformation is a new defense buzzword, and Tom Mahnken addresses it [Thomas G. Mahnken, "Transforming the U.S. Armed Forces: Rhetoric or Reality?" *Naval War College Review,* Spring 2001, pp. 85–99] with some useful ideas. Although he never defines what precisely is a "transformational weapon," he implies in his first sentence that such weapons should incorporate stealth, precision, and information technology. He often refers to space.

I don't know if the Army, Navy, or Marine Corps are transforming themselves, so I'll confine my comments to the U.S. Air Force.

After DESERT STORM the Air Force disestablished the Strategic Air Command because it was a vestige of the Cold War. That act would be roughly comparable to the Army disbanding the infantry branch. The Air Force also led the way into four key technologies—stealth, precision-guided munitions (PGMs), C4ISR*, and space—the areas that Mahnken implies signify a commitment to transformation.

There are only two operational stealth aircraft in the world, the Air Force's F-117 and the B-2; the F-22 will be the third. In DESERT STORM, the Air Force dropped over 90 percent of all air-delivered PGMs. Over Bosnia and Kosovo its share was approximately 60 and 70 percent, respectively. There are no other aircraft anywhere that can command and control the air and land battle with the speed, accuracy, or breadth of AWACS and JSTARS.† The United States has the largest, most sophisticated, and most comprehensive space program in the world. The Air Force currently contributes over 90 percent of the assets, over 90 percent of the funds, and over 90 percent of the personnel to U.S. Space Command. If stealth, precision, information, and space define transformation, as Mahnken says, the Air Force is already transformed.

* C4ISR: Command, control, communications, computers, intelligence, surveillance, and reconnaissance.

† AWACS—Airborne Warning and Control System (the E-3 Sentry); JSTARS—Joint Surveillance and Target Attack Radar System (the E-8C).

Nonetheless, Mahnken singles out unmanned aerial vehicles (UAVs) and argues that, first, they are transformational weapons currently underfunded, and second, that the Air Force has deliberately thwarted their development. The first assertion is debatable, and the second is offered without evidence.

UAVs are not new. They were used extensively in Vietnam and have been in most conflicts since, but they have had a mixed track record. No UAV has ever delivered a weapon in combat. They are expensive. The Air Force's new Global Hawk will cost fifteen million dollars—for the airframe. With a payload, the cost is forty million—more than a new F-16. UAVs are also vulnerable. Nato lost more than twenty over Serbia in 1999 (a relatively benign environment), two were downed over Iraq this past September, and two (at this writing) have been lost over Afghanistan. One reason for these losses is that UAVs are far less mechanically reliable than manned aircraft. That is why the Federal Aviation Administration refuses to allow them to fly in U.S. civil airspace. It's simply too dangerous. In addition, while the great advantage of UAVs is their ability to go into high-threat areas without risking valuable aircrews, their great disadvantage is that accordingly they often get shot down. Expect heavy, and costly, UAV losses when we use them in combat. UAVs are important for the future; hence, the Air Force has pioneered in their development. But there are serious problems with the technology—stability, control, situational awareness, performance, flexibility, bandwidth availability, payload, and vulnerability—that must be solved before they can replace manned aircraft.

As for the charge that the Air Force has deliberately retarded UAV development because they threaten manned systems or the dominance of pilots, Mahnken offers no proof. He cites no documents, staff summary sheets, internal memos, etc., that show senior Air Force leaders curtailing funds or delaying UAV development for these frivolous reasons. Mahnken makes a serious charge that strikes at the honor and integrity of an entire service. I hope he has something with which to back it up.

It is popular to portray the services as a bunch of myopic Colonel Blimps intent on protecting their turf and fighting the last war, even if that means increasing risk to our military personnel. But condemning all the services with a series of unsubstantiated assertions is simply not good enough.

As I write this, the United States is at war with terrorism. We will soon see if our military is up to that task. Mahnken seems to believe it will not be; I think otherwise.

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Professor Mahnken replies:

The thesis of my article was that while the Army, Navy, and Air Force have embraced the concept of transformation, "significant organizational barriers to the adoption of new technology, doctrine, and organizations exist. The services have been particularly reluctant to take measures that are disruptive of service culture" (p. 86). While the Air Force, for example, has made a number of significant innovations since the end of the Cold War—including reorganizing its air assets into expeditionary air forces, developing the global strike task force concept, as well as pursuing network-centric warfare and effects-based operations (pp. 93–4)—its support for UAVs has been lukewarm. This bears repeating, because Meilinger's letter seriously distorts the thrust of my article. While I do not expect him to agree with me, I would have expected him to take issue with my argument, not a straw man.

Meilinger is simply incorrect when he writes that my article amounts to "a series of unsubstantiated assertions." In fact, I provide two types of evidence to support my contention that the services have neglected unmanned platforms. First, one of the best ways to determine what an organization values is to see how it spends its money. In my article I note that the Defense Department spends ten times as much on manned combat aircraft in a single year than it spent on UAVs over the past twenty years. Second, I note two instances in which Congress intervened in the department's management of UAVs because of the Pentagon's perceived neglect of unmanned systems (p. 95). Meilinger may not find these facts compelling, but they are facts nonetheless.

Meilinger is correct when he points out the technical limitations of UAVs. On page 95 of my article I note that UAV technology remains short of its potential. Still, one wonders what technological and operational hurdles might have been surmounted years ago if the Defense Department in general, and the Air Force in particular, had devoted more money to developing and fielding unmanned vehicles.

Contrary to Meilinger's assertions, my article does not "portray the services as a bunch of myopic Colonel Blimps." Nor does it in any way "strik[e] at the honor and integrity of an entire service." In fact, I argue that "it would be wrong to view the services as uniformly opposed to fundamental change. Rather, each service is split between traditionalists and elements who are enthusiastic about new ways of war." In case he missed this passage in the text on page 96, it also appears in large italics in a text box on page 87. A similar statement appears on page 86. I can only conclude that he either did not read these passages or chose to ignore them.

Reasonable people may disagree over the extent of Air Force transformation or the value of unmanned systems. But Meilinger crosses the line between civil discourse and *ad hominem* attack. Closing his letter with language heavy in innuendo, he implies that anyone who questions the services' enthusiasm for new ways of war is unpatriotic or defeatist. Such a statement is unwarranted, unprofessional, and unworthy of further response.

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REVIEW ESSAYS

THE PAST AND FUTURE OF NONPROLIFERATION

Carnes Lord

Sokolski, Henry D. *Best of Intentions: America's Campaign against Strategic Weapons Proliferation.* Westport, Conn.: Praeger, 2001. 184pp. $59.95

After the presidential inauguration of George W. Bush, global discussion of strategic issues focused largely on the meaning and implication of a renewed commitment by the United States to defense against ballistic missiles. This book reminds us that missile defense is part of a larger complex of strategic issues having to do with the long-standing American effort to prevent the worldwide spread of weapons of mass destruction. At first sight, the embrace of missile defense as a major new defense priority might seem to suggest that the current administration has written off past American nonproliferation policy or has simply accepted the idea that the only effective approach when dealing with proliferators is the military one rather than diplomacy, arms control, economic inducements or any of the other tools the United States has relied on in the past. However this may be, it is far from the point of view reflected in this work. Henry Sokolski makes a sophisticated case that, though U.S. proliferation policy is not hopelessly broken, it needs significant repair.

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Best of Intentions is a deeply informed, well documented, analytical study of the history of American nonproliferation policy from its beginnings immediately after World War II. By reducing a potentially unwieldy subject to little more than a hundred pages of text and notes, Sokolski has performed an important service; the book is the only one of its kind. What

makes this account particularly valuable is Sokolski's focus on the strategic assumptions underpinning American policy at various stages of its development, and on how these contributed centrally to the success or failure of the overall nonproliferation effort.

Sokolski distinguishes six "initiatives" that have tended to dominate what he argues were relatively distinct phases in the development of nonproliferation policy. The first was the Baruch Plan of 1946, which sought to institute strict international ownership and control of all nuclear materials. This approach reflected the beliefs that it would be impossible to distinguish between benign and military applications of nuclear technology, and that the existence of any significant nuclear stockpiles would inevitably lead to arms racing and preemptive nuclear war. The Baruch Plan, which soon foundered on Soviet objections, failed to foresee the deterrent effects of nuclear weapons and therefore was based on an extreme view of the dangers of the atomic age. Sokolski argues, however, that in some ways this view was more sensible than what followed.

The centerpiece of the second phase was Eisenhower's "Atoms for Peace" program, which led to the creation of the International Atomic Energy Agency (IAEA) as the facilitator of peacetime nuclear energy development in non–nuclear weapons states. The ultimate strategic purpose of this program (the brainchild of Eisenhower himself) was to limit and eventually draw down stockpiles of fissile material in the Soviet Union through transfer to the IAEA, thereby depriving the Soviets of a weapons inventory capable of launching a crippling attack against America's industrial base. At the same time, unfortunately, "Atoms for Peace" took an excessively casual attitude toward the spread of nuclear materials and technologies to additional countries, establishing a regime of safeguards so permissive that it may actually have encouraged proliferation. The underlying assumption of Eisenhower's plan was that very small nuclear arsenals would have little strategic value, and so some leakage in the control mechanism was tolerable.

The next major development was the protracted negotiation of the Non-Proliferation Treaty (NPT), which reflected renewed global concern over "horizontal" proliferation. Sokolski shows that this period actually represented two distinct phases: an early one dominated by the original (1958) Irish proposal for a multilateral treaty that would simply prohibit further spread of nuclear weapons, and a later one (culminating in the signing of the treaty in 1972) dominated by the very different attitude that nonpossessing states would be willing to forgo their inherent "right" to acquire nuclear weapons in exchange for full access to the benefits of civil nuclear technology and for serious progress toward reductions in the superpowers' nuclear arsenals. These contrasting phases reflected contrasting strategic premises. The first, that the greatest danger to

international security stems from accidental or "catalytic" war initiated by new nuclear states, implies that stopping proliferation is equally in the interest of all states. The second, holding that small nuclear arsenals are a legitimate and benign exercise in "finite deterrence," contends that the real danger comes from the possibility of central strategic war between the superpowers.

The fifth phase began in 1975, with a meeting of advanced industrial nations (including the Soviet Union) to develop informal controls on exports to countries of particular concern. Later formalized as the Nuclear Suppliers Group (NSG), this cartel-like organization fundamentally repudiated the NPT regime's first premise, the principle of nondiscrimination, which in effect gave the benefit of the doubt to potential proliferators. Meeting in secret, the NSG strove to build consensus on strategies for dealing with countries of particular concern. The NSG's record proved a mixed one. Notwithstanding some successes in slowing proliferation in Taiwan, South Korea, and Pakistan in the late 1970s, it signally failed to stop the acquisition of dual-use nuclear technologies by Saddam Hussein in the 1980s (belated efforts were made to close these loopholes after the Gulf War). However, the organization did provide the model for later "supplier groups"—for missiles (the Missile Technology Control Regime) and chemical and biological weapons (the Australia Group). Significant successes were registered by these groups, particularly when their efforts were backed with the threat of legislatively mandated sanctions by the United States in the early 1990s.

With the end of the Cold War, however, it became increasingly difficult to sustain any export control regime against the pressure of commercial interests in the United States, as well as the multiplication of suppliers elsewhere. In a vain attempt to moderate their adverse proliferation behavior, Russia and China were brought into the Missile Technology Control Regime and were provided various technological inducements, thus assimilating this arrangement increasingly to what Sokolski calls the "concessionary, universalistic" nonproliferation treaty. By 1998, it was obvious that these approaches were not working adequately. In that year India and Pakistan tested nuclear weapons, while Iran and North Korea tested new long-range missiles. Moreover, not only did China continue to provide help to such countries, but it pulled off an extraordinary theft of U.S. nuclear and missile secrets that directly contributed to the quantum improvement in Chinese nuclear capabilities taking place today. This was a case, one might add, of "vertical" proliferation as destabilizing as any other proliferation failure of recent years, if not more so.

These developments made the United States increasingly impatient with traditional proliferation approaches and more open to what the Clinton administration began vaguely to describe as "counter-proliferation." This, the current phase in American proliferation policy, seems to call for reliance on military

force—especially in the form of preemptive air or special-operations assault—to cope with what now appears to be the inevitable spread of weapons of mass destruction to rogue states. Iraq has been the demonstration case of such an approach, first at the hands of the Israelis in their 1981 raid against the Osirak reactor, then at the hands of the allies in the Gulf War and after. But the practical as well as the legal difficulties inherent in "counter-proliferation" actions have so far prevented that strategy from gaining wide acceptance.

Where do we stand today? What should the United States do differently to curb proliferation in the future? What should be the place of nonproliferation strategies in U.S. foreign policy and in national security strategy overall? This volume offers no simple answer to such questions. Sokolski cautions against overblown expectations, while calling attention to the undeniable successes nonproliferation policies have had. Thanks to concerted international—particularly American—diplomatic efforts, active nuclear weapons stockpiles or programs and associated missile capabilities have been liquidated in Argentina, Brazil, Taiwan, South Korea, South Africa, Ukraine, Belarus, and Kazakhstan. It is less clear, however, that such proliferation victories are possible with today's rogue states. Nevertheless, these states remain vulnerable (as the case of South Africa nicely illustrates) to internal political developments in a more liberal direction—probably the single most potent nonproliferation tool available, Sokolski argues, yet one that has been largely neglected.

More generally, Sokolski's argument is that nonproliferation needs to be approached within a more self-consciously "strategic" framework than in the past. This means, in the first place, paying greater attention to the character and strategic interests of proliferator states rather than relying on formal and universal arms control schemes. In the second place, it means paying more attention to the larger strategic effects of the variety of nonproliferation regimes of which we have experience. In general, Sokolski is partial to elements of the Baruch Plan, to the Irish approach to the NPT, and to the original Nuclear Suppliers Group; in contrast, he makes clear how much damage has been done to sound thinking about proliferation by Atoms for Peace and the final NPT regime. It is hard to quarrel with these judgments, or for that matter with his bedrock conviction that nuclear proliferation remains a bad thing, that more nuclear actors greatly increase the danger of accidental or catalytic nuclear war.

For all its comprehensiveness, Sokolski's book leaves a number of issues unexplored. It has little to say about the NPT regime as it exists today, or the viability of the IAEA as a proliferation policeman—a particularly important issue in the wake of that organization's performance in Iraq before and after the Gulf War. In fact, the book is mostly silent about the entire problem of monitoring formal or informal proliferation curbs and of responding to evidence of deliberate

violations, which has vexed the international community in this and other areas of arms control since the days of the Baruch Plan. Nor is there any discussion of the question of U.S. policy toward out-of-the-closet proliferators like India and Pakistan—another issue of current relevance, given the recent warming of U.S. diplomatic and military relations with both nations.

Further, Sokolski might have been clearer on the question of the evolving definition of proliferation, specifically on the implications of the shifting focus of nonproliferation efforts in the 1990s from nuclear materials to missiles and chemical and biological weapons. This seems a particularly significant omission given his emphasis on the need to understand the strategic premises that motivate the actors in every nonproliferation regime. Sokolski acknowledges at one point that new technologies and weapon systems considered elements of the emerging "revolution in military affairs" (RMA) will be a focus of nonproliferation efforts in the future, but he fails to examine the implications of such a development.

Let us assume that these new technologies and their associated weapon systems become a nonproliferation focus, as indeed seems likely. Under those circumstances, it might be argued, a new general strategy against proliferation should be devised that gracefully cedes the terrain of nuclear, chemical, and biological weaponry (prospectively devalued in any case by the development of theater and national missile defenses) while drawing a bright line that would protect key enabling technologies of the RMA—for example, space-based sensors and precision-strike capabilities for cruise missiles. Would such a shift define nonproliferation out of existence? Not necessarily. It might remake it as a new strategic framework for U.S. technology export control policy and counterintelligence generally—something that seems very much needed in the wake of our recent experiences with China.

WHAT ARE CHINA'S INTENTIONS?

Andrew R. Wilson

Timperlake, Edward, and William Triplett II. *Red Dragon Rising: Communist China's Military Threat to America*. Washington, D.C.: Regnery, 1999. 271pp. $27.95
Manning, Robert, Robert Montaperto, and Brad Roberts. *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment.* New York: Council on Foreign Relations, 2000. 91pp. $10

The release of the Cox Committee Report in May 1999 inspired a surge of concern over China's military modernization, and it heightened anxieties about the ability of the People's Republic of China to steal America's most advanced nuclear weapons technology. While many of the claims made by that committee have yet to be substantiated, the Cox Report contributed to a fractious debate about the Clinton administration's China policy and complicated an already difficult task of assessing Chinese intentions and capabilities. Moreover, the worsening of U.S.-China relations that began with the bombing of the Chinese embassy in Belgrade and continued through the EP-3 incident earlier this year convinced many that China would represent the greatest challenge, and perhaps the greatest threat, to U.S. interests in the twenty-first century.

Both books use the Cox Report as their starting point. Both also offer assessments of Chinese capabilities and intentions as a basis to make policy prescriptions for the new administration. All similarities, however, end there.

Apparently written to capitalize on the public interest created by the Cox Report, *Red Dragon Rising* approaches the issues of China's military modernization and policy objectives as an opportunity for a damning critique of both Beijing and the Clinton administration, which the authors argue was complicit in the recent technological and tactical advancements of the People's Liberation Army (PLA) and turned a blind eye to China's continued human rights abuses, intimidation of Taiwan, and sale of advanced weaponry to states that are openly hostile to American interests. The thesis of this work is simple: democratic countries are about to be unpleasantly surprised by the emergence of a hostile,

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expansionist, nondemocratic superpower armed with the most modern weapons—and it will be the fault of the United States.

Edward Timperlake, a former Marine aviator now on the staff of the House Committee on Rules, and William Triplett II, the former chief Republican counsel to the Senate Foreign Relations Committee, seek to effect a fundamental change in U.S. China policy—a change that would recognize China as the greatest security threat both to the United States and to the democratic nations of the world. A litany of China's arms sales, acts of oppression, and wars of territorial aggression serves as evidence to support their view. It is odd that a book ostensibly concerned with the future of China and the emerging China threat would spend so much time discussing the past, but the authors argue that a look at the "real history" of Chinese brutality and territorial aggression is necessary to gauge China's intentions. As a historian of China, I heartily agree with this approach in principle; however, the authors' claim that they are in possession of China's "real history" is problematic. Not only are Timperlake and Triplett's discussions of the Tiananmen massacre, the occupation of Tibet, and China's foreign wars based on dated scholarship, but they are plagued with factual errors too numerous to list here, and there is at least one glaring contradiction that undermines their entire argument.

By their own admission it is internal security, the suppression of dissent, and the military occupation of border regions (such as Tibet) that consume the majority of money, manpower, and attention within the Chinese military. If this is the case, as the authors claim, how can the People's Republic also be actively pursuing hegemonic aspirations throughout Asia? Moreover, as their description of Tibet indicates, the People's Liberation Army (PLA) is very aware of the cost and time commitment necessary to hold even a sparsely populated region in the face of minimal resistance. This fact would seem to militate against territorial aggrandizement at the expense of China's neighbors, but Timperlake and Triplett do not address this critical point.

In terms of military modernization, *Red Dragon Rising* presents an extreme view of China's emerging capabilities. While most of the debate over the Chinese military arises between those who are skeptical about China's future military capabilities and those who believe that the PLA will achieve *some* significant advances, the authors take all Chinese claims at face value. As a result, Timperlake and Triplett credit the PLA with an across-the-board force modernization and doctrinal innovation that will rapidly outstrip U.S. ability to respond. Unfortunately, Timperlake and Triplett do not use the abundant open-source material on the Chinese military to support their dire predictions about the PLA's ability to develop and master new weapons systems and engage in information warfare. Nor do the authors make reference to the equally available scholarly

literature on the significant problems confronting China in terms of its political, social, and economic cohesion that may constrain military modernization.

Consisting primarily of speculation and innuendo, almost completely bereft of scholarly merit, seemingly inspired principally by hatred for Bill Clinton and Al Gore, and wholly loyal to the Taiwan lobby, *Red Dragon Rising* will be of little value to readers who are truly interested in serious debate about U.S. policy toward China. The book's inflammatory polemics can only serve to politicize further what the authors correctly identify as an issue of concern to all Americans. Moreover, the desire to list every evil ever perpetrated by the People's Republic serves only to obscure the most critical and alarming new trends—the improvements in China's nuclear capabilities and its growing strategic partnership with Russia.

While equally concerned with China's capabilities and intentions, Robert Manning, Ronald Montaperto, and Brad Roberts approach the same issues with significantly more critical objectivity in *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*. The result is a provocative, at times alarming, but quite balanced discussion of several alternative futures for China's strategic arsenal and nuclear doctrine, and for U.S. policy. This short volume is the first product of a series of roundtable discussions among senior China analysts, national security specialists, and nuclear experts. The authors state, however, that this book represents not a consensus among the entire group but rather their own preliminary assessment. Manning is a former Asia policy analyst at the State Department for the George H. W. Bush administration; he is now the director of Asian studies at the Council on Foreign Relations. Montaperto, a China expert who was formerly on the faculty of the National Defense University, is dean of academics at the Asia-Pacific Center for Security Studies. Roberts is an arms control expert at the Institute for Defense Analyses. The three authors possess sufficient scholarly expertise to make this book essential reading for anyone who wishes to understand the basic context of China's nuclear policy and the forces that drive China's nuclear decision making.

Rather than accept the Cox Report's suspicions as fact, Manning, Montaperto, and Roberts begin with what little we do know about China's strategic weapons, delivery systems, fissile material stockpiles, and nuclear doctrine. They use this sketch of current and potential capabilities to posit five notional-force futures for China's strategic arsenal. Drawing from analyses at both ends of the spectrum regarding PLA capabilities, as well as best and worst-case assessments of Chinese intentions, these scenarios run the gamut from minimum deterrence to parity with the United States. Perhaps of more significance, however, is the authors' discussion of how Chinese decisions on force structure and doctrine might be influenced by a variety of factors. While internal forces like interservice

competition for resources, changes in regime, and economic growth will inform Chinese actions, and international trends, such as South Asian proliferation and Japan's changing security posture, will influence China's nuclear planning, the authors contend that it is the American approach to nuclear weapons in general and to China specifically that will have the greatest impact on Beijing. This prospect bodes well for the ability of the United States to exercise influence over China's nuclear arsenal, but it also demands a significant reorganization in U.S. nuclear policy, which would include a linkage between nuclear policy, China policy, and planning for both theater missile defense and national missile defense. According to the authors, the decisions that the Bush administration makes regarding the scale and deployment of missile defenses will undoubtedly have a significant influence on China's nuclear doctrine.

From Beijing's point of view, the prospect of a U.S. national missile defense system implies the prospect of living in a world in which Washington can dictate terms to China anywhere and everywhere that Washington has interests, be it in the service of Taiwanese independence or human rights in Tibet.

While these statements are likely to raise calls from critics like Timperlake and Triplett that the authors are sympathetic to Beijing, such considerations are critical to shattering what the three authors view as the dominant "bipolar" paradigm of U.S. nuclear policy, which is fixated on U.S.-Russian relations, and to building a new, more nuanced approach that takes second-tier nuclear powers like China seriously. Likewise, U.S. policy choices may influence China's willingness to participate in and abide by international arms control regimes.

Finally, *China, Nuclear Weapons, and Arms Control* makes the rarely heard argument that policy makers in Washington must address the role that Russia will play in the Sino-U.S. equation. Russia currently occupies the second spot in China's hierarchy of bilateral relationships, after the United States, and this dynamic must be incorporated into a new "tripolar paradigm for nuclear arms control." The intersection of these three powers, the authors argue, is what should drive an entirely new American approach to nuclear policy and to discussions with China on nuclear issues. This approach will require combining the issues of nuclear weapons, missile defense, and China in a wider U.S. national debate and within U.S. security institutions. This could in turn lead to a more constructive dialogue with both Russia and China, and maximize the ability of the United States to influence Chinese policy choices for the better. While I do not share the authors' optimism about positively influencing either Chinese decision making or Chinese impressions of America, I do find their ultimate prescriptions for a new nuclear policy framework to be persuasive.

The major shortcoming of *China, Nuclear Weapons, and Arms Control* is its frustrating brevity. To be fair, this is more the result of the paucity of reliable

open-source material and secondary works on China's strategic forces and doctrine, as compared to the abundant material on both the PLA's conventional forces and its emerging information warfare doctrine. While Timperlake and Triplett rely primarily on speculation "to accurately chronicle" China's rise, neglecting readily available open-source material, Manning, Montaperto, and Roberts are forced to speculate, because the relevant material does not yet exist. However, given the prolific publishing records of all three authors, we can anticipate more detailed works to follow that will flesh out this preliminary assessment. A secondary weakness of the book is its lack of a bibliography. While the footnotes are a useful reference for further reading, a full bibliography of relevant primary and secondary sources, perhaps even annotated by the knowledgeable authors, would have been invaluable. Yet even with these flaws, the book is a concise, scholarly, and balanced assessment of a topic that is critical to U.S. national security.

BATTLE ON THE POTOMAC

Thomas C. Hone

Wilson, George C. *This War Really Matters: Inside the Fight for Defense Dollars.* Washington, D.C.: CQ Press, 2000. 239pp. $19.95

If you plan someday to work in the Pentagon, then you need to read this book. If you are a citizen just trying to grasp how defense budgets are made, you need to read this book. If you are one of the so-called "policy makers" in Washington, you also need to read this book, because it is about you and what you do.

George C. Wilson was the defense correspondent for the *Washington Post* for twenty-three years. People like me looked forward to Wilson's reports and books because he had (and still has) a nose for war, and for the people and institutions that make war. He also has a knack for getting to the point and for getting people he interviews to do the same. He has certainly packed this slim book with candid comments about the defense budget process. If you did not know why people compare the budget process to sausage making (you can eat the product but you don't want to see it being made), then you *will* know after you have read this revealing account of making the budget and approving the most recent Base Realignment and Closure list.

Why did Wilson write this book? He wrote it because, as he says, few Americans "know much about the bloodless but vital fight for their defense dollars. This book provides a ringside seat for watching this fight up close and personal." Why select the 105th Congress (1997–98) to watch? The reason is that "the 105th, because it fell between the 1996 and 2000 presidential elections, was less distorted by seasonal electioneering." Is there a bottom line to the book, a central message? Yes. "Military leaders . . . must engage in the art of the possible to achieve their goals." They must master this art in order "to maximize their effectiveness in government councils."

I can hear the teeth of professional military officers grinding. How often have I heard officers say, "I don't want to be a politician!" As Wilson shows, however, the nation's military leaders—especially the chairmen of the Joint Chiefs of Staff—have no choice in the matter. They are intimately involved in the debate over how to use the nation's resources to defend the

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nation's interests. To the degree that they bring truth, integrity, intelligence, and tactical human skills to that debate, the nation benefits.

Yet officers are right to be wary of the political process in Washington. The people who dominate it at the highest levels are intelligent, calculating, ambitious, energetic, and committed. They are also frequently at odds with one another. Getting involved with them is often like trying to mediate a fight between two cats. Increasingly, however, most of them— whether elected or appointed, in the executive branch or in Congress—lack military experience, so senior military officers *must* contribute their professional opinions, insights, and preferences to policy and budget debates.

The value of *This War Really Matters* is that Wilson gets almost all the participants in the partisan political process of making the budget to speak candidly about their views, their motives, and their tactics. The book is a classic case study of how Washington works, and it is told largely in the words of the movers and shakers themselves. By drawing on extensive interviews with officials in the Pentagon and with members of Congress, Wilson breathes fire into what most citizens regard as a confused, frustrating, and dull process. The fact that he does this in a little more than two hundred pages of text means that readers can casually peruse this book on an airplane or master the text in a few evenings. The author makes reading even easier by providing chapter summaries in his introduction. Readers short of time or interested in just one of the issues Wilson explores can first consult these summaries; they are excellent guides.

This War Really Matters begins by considering the responses within the Department of Defense and Congress to the Quadrennial Defense Review (QDR) in 1997. Wilson focuses his attention first on John Hamre, then Pentagon comptroller, and his efforts to persuade the media and members of Congress that the Clinton administration was providing enough fiscal support to the Defense Department. Wilson then shifts to William Cohen, the secretary of defense. Given what Wilson calls President Bill Clinton's "detachment" from the QDR process, it was up to Cohen to persuade the administration's Republican opponents in Congress that a "no-growth" level of defense spending was adequate to meet the nation's needs.

Wilson goes on to reveal the reactions of senior military officers in the Pentagon to the QDR and to the administration's desire to hold defense spending down. On one hand, the president and the leaders of the congressional majority had agreed to spending caps for all nonentitlement programs. On the other, both parties to the agreement felt there was a need to increase spending in certain areas. Because neither side wanted to take the blame for "busting the caps," both sought the support of the uniformed service chiefs. Secretary Cohen needed them to say that they could live with a "no growth" budget. Cohen's

critics, such as Republican representative Floyd Spence, then chairman of the House National Security Committee, wanted the service chiefs to declare that they could not carry out their legal responsibilities without additional funding.

The chiefs were in the middle. Wilson interviewed a number of senior officers for this book, including Army general John Shalikashvili, and his deputy for the QDR, Air Force general Ronald Fogleman. These interviews make fascinating reading. They reveal strong but honest differences among uniformed service leaders about the roles their forces should play in the future. If one purpose of the QDR was to force service leaders to resolve those differences, these interviews show that it failed. The interviews also show how sensitive the officers were to competition among the services, and how often they found it hard to get people without military backgrounds to understand the special problems faced by military forces entrusted with worldwide missions.

The chiefs supported Secretary Cohen when the QDR was issued in the spring of 1997 and again in testimony to Congress in February 1998. Yet the escalating political conflict between the Republican majority in Congress and the White House kept both houses of Congress from passing a joint budget resolution for fiscal year 1999. This turned out to be an opportunity for the service chiefs to go after the additional funding that they had foresworn the previous year.

In the run-up to the 1998 congressional elections, neither political party wanted to be tagged as "obstructionist." However, neither party was happy just to continue the budget "caps" agreed to in 1997. In early September 1998, for example, President Clinton met with the service chiefs and told them to take their cases for more funding to Congress. When the chiefs testified before the Senate Armed Services Committee at the end of September, they took a coordinated and prepared position. Wilson calls it "smart politics." The trick was to get the Republicans in Congress to take the responsibility for "breaking the caps." The Republicans understood the game and tried to place the onus on the White House. Wilson's description of the resulting political maneuvering is fascinating.

There is a lot more to this book as well. For example, Wilson persuaded both Representative David Obey, then the ranking Democrat on the House Appropriations Committee, and Republican Robert Livingston, then the committee's chairman, to speak candidly about the budget process. Obey's views are particularly interesting. Obey claims that the budget process institutionalized in 1974 had failed, and that there was an urgent need for structural reform. Livingston does not agree, but the comments of both representatives merit consideration.

There are more gems, including the travail of F. Whitten Peters, appointed Under Secretary of the Air Force in November 1997. In the dispute between President Clinton and members of Congress over the base realignment report submitted in 1995, Peters was caught in a partisan political battle that also

included major defense contractors, such as Lockheed Martin. A memo Peters wrote at the end of April 1998 to John Hamre, then deputy secretary of defense, describing a way to preserve jobs at a major Air Force depot on the "cut" list, was soon leaked to House Republicans. Peters, trying to find a solution to the dispute that was acceptable to all parties, was soon pilloried by all sides. Yet he managed what Wilson calls "a remarkable turnaround. He converted his former critics into supporters" and may well have saved the process itself.

The scandal over the president's conduct with White House intern Monica Lewinsky dominated political news in 1998. As George Wilson shows, however, the debates and political maneuvers that affected the fiscal year 1999 defense budget were just as dramatic, if far less visible in the media.

This book is the best introduction in print to the defense budget process. It is also a wonderfully revealing examination of how influential people in the Pentagon and Congress think about their jobs and their constitutional responsibilities.

This War Really Matters has only two weaknesses. The first is that Wilson did not interview President Clinton. As a result, the president's views in the book are those he gave publicly to the media, or those that could be gleaned secondhand from others whom Wilson interviewed. The second weakness is that it lacks a chronology. The book contains a glossary and a host of useful charts in an appendix, but a chronology would have helped readers—especially if it tracked the Lewinsky scandal and the impeachment of the president in parallel with the progress of the fiscal year 1999 budget.

BOOK REVIEWS

ONE MAN'S OPINION

Clark, Wesley K. *Waging Modern War*. New York: Public Affairs, 2001. 479pp. $30

This book is retired Army general Wesley Clark's anxiously awaited account of Nato's operations in Kosovo, dubbed ALLIED FORCE. As Clark was the Supreme Allied Commander, Europe (SACEUR) during Nato's first war, his account of this major operation is an important contribution to the historical record of events that led to what many consider a very controversial military endeavor.

Waging Modern War is divided into four parts. The first briefly addresses General Clark's career and his early reputation as a "fast-burner." It introduces Clark as the new Director for Strategic Plans and Policy (J-5) during the Bosnia-Herzegovina war and presents the same cast of characters that he would see again later in his career as SACEUR. The J-5 position allowed Clark to cut his diplomatic teeth while supporting Ambassador Richard C. Holbrooke's shuttle diplomacy, which eventually led to the Dayton accords. Most importantly, it was at this time that Clark began to gain his own insights into Yugoslav president Slobodan Milosevic and what made him tick. Though Clark discounts any patronage from his previous Arkansas connections with former President Bill Clinton, he makes it quite clear that he was seldom the Army's favorite because of the many key positions he had held that helped position him for his selection to SACEUR. This section helps the reader to understand a bit about Clark's leadership style and attention to detail (less charitable people would label him a micromanager) and his view that the rest of the Army perceived him as an intellectual and not from the war-fighter mold. This is a key insight of a soldier never fully accepted by his own, and it establishes a thread woven through the remainder of the book.

The second section details the events and preparations that led up to Operation ALLIED FORCE. Clark lays out the planning challenges he encountered in an alliance that had been formed for an entirely different threat. At every turn he faced the need to compromise already accepted planning procedures. To complicate things, Clark discovered that his own national strategic-level leadership had little understanding of his dual-hatted role as Commander in Chief, U.S. European Command, *and* SACEUR, and of the political responsibilities attendant upon the latter position. This was further

complicated by the apparent lack of interest that was displayed by both the Joint Chiefs of Staff and the national command authorities in focusing upon the Kosovo situation.

The third part of the book, "The Air Campaign," addresses the execution phase of ALLIED FORCE. Here Clark's shortfalls in planning and his inability to forge a supportive relationship with the Joint Chiefs of Staff and the secretary of defense become apparent. Two days into the operation, Clark wrestled with the implications of having no defined end-state and the resulting fuzzy linkage between military and political objectives. Incredibly, he attempts to deflect criticism toward the political leadership for the fundamental flaws in the plan. The effects of this confused strategy vacuum lingered throughout the operation. In addition to the strategy challenges faced by Clark, the Washington leadership was not supportive—indeed, Clark depicts it as an impediment. His assessments of then Secretary of Defense William Cohen, Chairman of the Joint Chiefs of Staff General Hugh Shelton, and Army Chief of Staff General Dennis Reimer are damning. Clark is unambiguous that from his perspective, all three men contributed to a lack of national strategic coherence during the operation. This section ends by depicting a slippery slope toward an inevitable ground invasion of Kosovo—something that everyone wanted to avoid.

The final section of the book, "Endgame," details the sudden change in circumstances and Milosevic's willingness to accept a deal. Clark outlines the time-sensitive and painstaking negotiations required to ensure an executable plan for the Nato peacekeeping force. He also addresses the now famous refusal of his subordinate, Lieutenant General Sir Michael Jackson of the British army, to send forces into Pristina airfield to block the impending arrival of Russian forces. Clark concludes with an examination of his experience and its implications for future warfare.

This is a worthwhile book for those interested in the Kosovo conflict and how the Nato alliance works in practice. Subsequent memoirs from other key participants will add balance to this historical perspective. As for contributing to the body of knowledge on military theory, as the title implies, one must be less enthusiastic. Instead of presenting new theoretical constructs applicable to modern war, in reality the book displays the pitfalls faced by a joint-force commander and his national-level superiors when they disregard the fundamental tenets of operational art.

PATRICK C. SWEENEY
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Watts, Barry D. *The Military Use of Space: A Diagnostic Assessment*. Washington, D.C.: Center for Strategic and Budgetary Assessments, 2001. 130pp.

Barry Watts, former director of the Northrop Grumman Analysis Center and now the director of the Office of the Secretary of Defense (OSD) Program Analysis and Evaluation, has written an assessment of military competition in near-earth space and how that competition may evolve over the next twenty-five years. Aside from the importance of its subject, this book is of particular interest because it explicitly attempts a "net assessment." Watts worked for Andrew Marshall, director of the OSD Office of

Net Assessment (ONA) from its establishment in 1973. Marshall played a major role in, among other things, the conceptualization of the "revolution in military affairs" (RMA) and is currently playing a major role in the Bush administration's defense review. Much of the work of ONA is highly classified, and it has been difficult to understand just what is involved in "net assessment." Now we have an example. How does it look?

Watts observes that the United States is the preeminent user of space today and that the way it uses space has changed from the preconflict reconnaissance and warning of before, say, 1991 to enhancement of operations by traditional sea, air, and land forces since then. Watts argues that the U.S. primacy is unlikely to change, because the cost of moving mass into orbit is likely to remain high, and because much of the U.S. advantage originates in its organization and the tacit knowledge of its operators rather than the assets themselves. A key asymmetry between the United States and its potential adversaries is that America is inherently more dependent on space-based assets. Rather than repeat the U.S. effort, adversaries without the same budgetary and organizational constraints may be able to exploit commercial and dual-use technologies to meet their needs adequately and may attempt to reduce U.S. capabilities by attacking terrestrial downlinks rather than space-based assets. Thus Watts does not think it likely that overt military competition or conflict in space will happen over the next twenty-five years, to the extent that weaponization of space occurs, but he does believe it is inevitable over the long run, if more gradual than abrupt. That said, Watts does not expect that the military use of space for communications and intelligence in 2025 will be essentially different from its use today.

Watts's assessment, although nuanced, is sometimes confusing. One of the most puzzling issues is whether space is considered to be a military or economic center of gravity. Watts says that the survival of the United States does not depend on space-based assets. Yet he repeatedly observes that U.S. forces are increasingly dependent on satellites for communications and intelligence. What would happen if U.S. satellites were attacked? He discusses this only in terms of attacks on satellites in low earth orbits (LEO). Watts's judgment that nonnuclear antisatellite (ASAT) attacks on individual satellites would be taken seriously by the U.S. leadership but might not lead to war seems plausible. In contrast, his argument that nuclear attacks on satellites in LEO would not have much military effect yet would be met with so strong a response that even pariahs would be deterred seems summary. Why would there be a strong response if space is not a center of gravity? Also, what happens if deterrence fails? As Marshall has said, "It is not a matter of deterring someone like us, but someone like him."

The significance of the issue may be visible in a situation Watts does not consider—the effects of large-scale nonnuclear attacks on satellites in higher orbits. Given the interest in RMAs at Net Assessment, it is curious that he does not consider what might be a true RMA for the U.S. military, albeit one in reverse—a large-scale degradation of U.S. communications, reconnaissance, and Global Positioning System satellites. For example, while the cost of moving mass into geostationary transfer orbit may be expensive (according to Watts, moving 2,200 pounds to geostationary transfer orbit using a

Chinese Long March 2C costs twenty-five million dollars), middle tens to low hundreds of millions of dollars for an antisatellite program may be an attractive price for a capability to attack the small number of high-value U.S. communications satellites in high orbits. A direct-ascent ASAT program might cost less.

Indeed, a country contemplating war with the United States might consider a billion dollars or so to degrade U.S. capability substantially by attacking thirty-five or forty American satellites money well spent. Hard, yes; guaranteed successful, no; but the severity of the outcome might be merely a function of money for an adversary and a serious problem for the United States if satellites move from being force multipliers to force divisors. In an explicit net assessment the issue of U.S. vulnerability and the capability of potential adversaries should be addressed more thoroughly before the wisdom of raining titanium rods from space is considered.

This book is recommended as an introduction to an important and insufficiently understood topic. It is also recommended as an example of net assessment, though, perhaps as intended, it is better at asking significant and useful questions and sensitizing readers to problems than at providing answers.

CARMEL DAVIS
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Alexander, John B. *Future War: Non-Lethal Weapons in Twenty-first Century Warfare*. New York: St. Martin's Griffin, 1999. 255pp. $14.95

The purpose of this book is to draw attention to the use of nonlethal weaponry in future warfare scenarios. The subject is divided into three major sections that, respectively, discuss the rationale behind the use of nonlethal weaponry, provide an introduction to new technologies, and suggest scenarios of tactical and strategic uses. Throughout the book, Alexander focuses the reader's attention on some of the more critical issues of the appropriate use of nonlethal weaponry in the U.S. arsenal and, in so doing, demonstrates that new weaponry is needed to respond adequately to new and emerging types of conflict.

One of Alexander's fundamental assumptions is that "war has always represented the controlled application of force" and that nonlethal weaponry can be part of that controlled application of force consistent with military objectives. The questions are: How will new technologies be used to control the level, type, and effects of the force? How do these new technologies relate to changing military and political objectives? How can nonlethal weaponry best be applied when the objective is to limit force application in a variety of situations? These are not easy questions by any stretch of the imagination, but Alexander has had the temerity to put them forward for public scrutiny.

Alexander is no dilettante; his expertise in this area is recognized by the number of well-known serving military officers who have written short scenario-vignettes printed in the front of the book. Neither should it go unnoticed that Tom Clancy wrote the foreword and General John J. Sheehan wrote the introduction. Notably, Alexander chaired one of the first major conferences on nonlethal weaponry and participated in the landmark study by the Council on Foreign Relations on nonlethal weapons. He has experience as a military commander with the Green Berets in Vietnam, as Dade

County deputy sheriff, and as a consultant for the Los Alamos National Laboratory. This combination of technical expertise and real-world experience regarding the suitability and applicability of nonlethal weaponry has led to a thoughtful study that must be taken seriously.

Alexander's easy writing style belies the difficulty of the subject. The descriptions of techno-gadget weaponry may evoke ideas of science fiction or Nintendo, but they draw attention to the fact that what may not have been technologically possible in the recent past is now commonplace. The reader will be drawn to descriptions of electronic surveillance devices, new types of (and uses for) chemical agents, low-kinetic-impact weapons, acoustic devices, biological agents, and technologies appropriate for information warfare. The effect of these weapons on the human body and their use in conflict are of critical concern to all Americans, whether as "users," potential "targets," or as part of the policy community that writes the rules that enable or restrain the use of nonlethal weapons.

The author's use of fictional worst-case scenarios draws attention to the interface between weaponry, tactics and strategies, and appropriate rules of engagement. At first glance the vignettes seem a bit distracting, but they are admittedly an effective device for quick-pacing a difficult subject. They also tend to make a very sober analysis more palatable.

Military and intelligence experts will criticize the technological information as being "common knowledge." However, *Future War* was not meant to be a handbook for professional practitioners. Its importance lies in drawing public attention to several dilemmas in U.S. security, both domestic and international. Instructors in professional military education should be discussing with military members not only the technology but the appropriate uses of nonlethal weaponry where military and law enforcement activities tend to overlap. Academicians and others who shape public opinion need to understand and discuss the dilemmas faced by military forces and law enforcement organizations. Finally, policy makers need to know the excruciatingly difficult decisions that must be made in the near future regarding the appropriate types and levels of force to be applied in a wide spectrum of missions.

The appendix alone is worth the price of this book. Alexander provides simple lists and diagrams of nonlethal weapons taxonomies, nonlethal antipersonnel and antimaterial weapons, target categories, specific uses of nonlethal weaponry, and programs supported by the joint nonlethal weapons directorate.

It is commonly assumed that the number and types of violent episodes around the world are increasing exponentially and that there is an increasing public awareness due to the growing visibility provided by the media. If these assumptions are true, any new type of control mechanism, whether lethal or nonlethal, will be subject to enhanced public scrutiny. The use of nonlethal weaponry in new forms of conflict needs to be discussed, debated, and understood by American citizens, whether in uniform or civilian. This book makes a significant contribution to that discourse.

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Gottschalk, Jack A., et al. *Jolly Roger with an Uzi: The Rise and Threat of Modern Piracy*. Annapolis, Md.: Naval Institute Press, 2000. 170pp. $26.95

Jolly Roger with an Uzi is an easy, quick, and interesting read. Despite its relatively short length, it is a comprehensive examination of modern piracy. The authors' arguments and logic are strongly supported with facts and analysis, making their book a work of substance. Jack Gottschalk and Brian Flanagan, with Lawrence Kahn and David LaRochelle, do an excellent job of putting modern-day piracy into historical, legal, and economic perspectives.

They begin by looking at the evolution of piracy through the ages and the socioeconomic and political factors that have contributed and continue to contribute to its existence. In chapter 2 the authors lay out the legal considerations and framework for the differing thoughts on what constitutes piracy. Using the United Nations 1982 Law of the Sea Convention, the authors examine the international legal definition of piracy, as well as such criminal acts as larceny and robbery. The authors point out that piracy, by definition and by its very nature, has always been a crime for economic gain and, like other serious crime, often results in acts of violence.

One of the main points of this book is that regardless of legal definition, modern-day piracy has broadened its associated threats to include organized criminal activities, drug smuggling, potential environmental disaster, and common theft, as well as fraud. The heart of the authors' analysis is contained in a regional look at piracy over the last three decades. Focusing on Europe, the Americas, Africa, and Southeast Asia, Gottschalk and Flanagan bring the reader up to date on modern piracy. The authors establish a clear picture of the extent and nature of contemporary piracy by summarizing reports by region and country. Building on these data, the authors discuss the economic factors that influence the actions of governments and the maritime industry to counter piracy. This analysis is based on an easy-to-follow logic that looks at piracy's impact on legitimate maritime trade from three points of view: those of merchants who use ocean transport, the shipping companies, and the insurance companies. The authors build a strong and credible case that, despite the significant increase in both frequency and violence, current economic losses due to piracy fail to outweigh the apparent costs of significantly lessening or stopping piracy, and so it continues. The authors conclude the issues and analysis portion of their book by discussing the potential for environmental disasters stemming from acts of piracy, and the differences between piracy and terrorism. In their "Solutions" chapter, the authors conduct a probing exploration of the challenges faced in putting an end to a criminal activity that has been around since the beginning of maritime trade. Their ultimate conclusion is that maritime trade, the target of piracy, is truly global and that therefore deterring or stopping piracy will require the cooperation of the international community of nations and the world's maritime industry.

The authors are to be commended. Collectively they have a wealth of professional expertise and experience in the maritime arena. Their treatment of "the rise and threat of modern piracy" provides an updated foundation from which to seek solutions to this growing problem of maritime security. Criminal and

international in nature, piracy, if left unchecked, will eventually provide the catalyst for future international crises and conflicts. This is a worthwhile read for anyone who is interested in or responsible for maritime security.

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Menon, Raja. *A Nuclear Strategy for India*. New Delhi: Sage, 2000. 316pp. $45

Indian officers have written remarkably little about nuclear strategy in the more than quarter-century since India first demonstrated its ability to produce nuclear weapons. The cloak of secrecy that has traditionally surrounded India's nuclear program, New Delhi's declared policy of maintaining a nonweaponized nuclear stockpile, and a lack of interest in nuclear issues on the part of the Indian officer corps stifled discussion of nuclear issues. It is notable that the two most comprehensive accounts of India's nuclear and missile programs written to date—George Perkovich's *India's Nuclear Bomb* (Berkeley: Univ. of California Press, 1999) and Raj Chengappa's *Weapons of Peace* (New Delhi: HarperCollins India, 2000)—were written by an American scholar and an Indian journalist, respectively. India and Pakistan's 1998 nuclear weapon tests changed all that, bringing New Delhi's nuclear program into the open and triggering a new wave of thinking and writing about nuclear strategy. Raja Menon's *A Nuclear Strategy for India* represents one of the first serious attempts by an Indian officer to address the doctrinal and force posture issues arising from India's decision to go nuclear. The author, a naval officer who retired in 1994 as Assistant Chief of the Indian Naval Staff for Operations, is well qualified to write on this subject.

Menon begins by reviewing the history of New Delhi's nuclear program and the development, such as it is, of Indian nuclear strategy. He is sharply critical of the Indian government and armed forces' traditional approach toward nuclear weapons. He argues that decisions on nuclear weapons have been fueled by a mixture of political rhetoric and organizational politics but have occurred in a strategic vacuum. The secrecy that has always surrounded the Indian nuclear weapon program has prevented a dialogue between the political leadership, the military, and defense scientists on strategy and force posture issues. He argues that rational analysis, not emotion, should guide Indian nuclear policy.

The remainder of the book offers just such an analysis. Menon begins by giving the reader a primer on nuclear strategy, one that borrows heavily from U.S. literature on nuclear deterrence of the 1970s and 1980s. One wonders just how applicable this literature was to the problems the United States faced during the Cold War, let alone those India may face in the twenty-first century. Clearly, Indian thinking about nuclear weapons is still in its infancy.

Menon's prescriptions for India make up the most interesting part of the book. While commentators in the United States have tended to focus on the Indo-Pakistani nuclear rivalry, the author makes it clear that it is China's nuclear and missile programs that drive New Delhi's force posture. He is particularly concerned that a modernized Chinese nuclear arsenal carried atop highly accurate missiles will render fixed targets in

India increasingly vulnerable. He therefore argues for a nuclear force that relies upon mobility to ensure its survivability.

The final section of Menon's book is a thorough discussion of the nuclear options open to India. He recommends that India adopt a rail-garrison, land-based missile force until it can shift to reliance upon ballistic missile–carrying submarines by 2020 (a date that seems extremely optimistic, given the troubled history of India's indigenous submarine programs). He also argues that India should field cruise missiles for both conventional and nuclear missions.

Menon is skeptical of the contention that nuclear weapons themselves offer an effective deterrent. He argues that a state's force posture and command and control arrangements are also important. Menon calls for extensive changes in Indian military decision making, suggesting arrangements that draw heavily upon those of the United States. He believes, for example, that India needs to adopt its own version of the national command authority and Joint Chiefs of Staff to command and control its nuclear forces. He also argues that India needs to codify its targeting policy in its own version of the Single Integrated Operational Plan.

A Nuclear Strategy for India is likely only the first of many efforts to think through the implications of India's decision to go nuclear. While but a first step, it provides the groundwork upon which others will doubtless build.

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Wickham, John A. *Korea on the Brink: From the "12/12 Incident" to the Kwangju Uprising, 1979–1980.* Washington, D.C.: National Defense Univ. Press, 1999. 240pp. $20

For some reason, Korea is a major blind spot in U.S. thinking about world affairs. Public commemoration of the Korean War's fiftieth anniversary is almost nonexistent compared to the attention paid to the Second World War in the first half of the 1990s. Today, the Cold War lingers on in East Asia with the continuing division of the peninsula, which remains one of the locations in which the United States is most likely to go to war in the immediate future. Yet the American interaction with Korea is in many ways a success story in U.S. foreign policy, at least in the southern half of the country. The Republic of Korea has become an industrial, market-driven economy with a civilian-led democratic government that enjoys grassroots support among its citizenry. The road to this state, however, was fraught with extreme danger. From the mid-1960s until the early 1980s, there was a nearly continuous real possibility of war on the peninsula again. One of the periods of maximum danger was between 1979 and 1981, in the wake of the assassination of President Park Chung-hee and a military coup that toppled the civilian successor government.

General John A. Wickham was the commander of U.S. forces in Korea during this period, and this book is a memoir of his efforts to keep the United States and South Korea focused on their combat missions despite the turmoil of the time. Even though Wickham was a military commander, he could not turn a blind eye to politics. The South Korean army had become thoroughly politicized after

Park's eighteen-year reign. The late president had been a general who had come to power by a military coup. Many of his protégés worried about their futures after their mentor's death. There was also a good deal of concern and confusion about the North Korean role and its likely reaction to the assassination. Initially the South Korean military supported the constitutional process, but a number of junior generals with conservative social views and a strong distrust of civilian politicians decided to take control of the government two months after Park's death on 12 December (thus "12/12"). Wickham recommended a hands-off approach toward the coup. If it turned violent, or if there were a countercoup, there would be a good possibility that the North would intervene. The general knew this advice would not be popular back in Washington with President Jimmy Carter and his foreign policy team. "The U.S. government obviously was out of sorts over the '12/12 Incident.' It was a setback to the democratization process in the ROK [Republic of Korea] and a poor harbinger for the human rights goals that were central to President Carter's foreign policy."

Wickham's efforts were constantly focused on trying to keep the South Korean army "facing north"—that is, preparing to deal with the military threat of North Korea. This ever-present danger made the political maneuverings of coup and countercoup leaders all the more dangerous. The possibility that the North might attack in an effort to take advantage of the political weakness of the South was one that intelligence indicated was real. Indeed, the story Wickham tells evokes images of Saigon in the mid-1960s.

In Wickham's view, many of the generals he dealt with were politicians in uniform. He was drawn into a number of political matters against his wishes; one of them almost destroyed his career. One of Wickham's themes is the influence the United States had in South Korea. The United States had reduced its ground force numbers in Korea during the administration of Richard Nixon, and the efforts of Carter to withdraw the troops entirely made many Koreans question the U.S. commitment. "The American mission was over a barrel, because our basic objective was to protect the ROK from invasion. That left us obliged to accept the realities of the Korean political apparatus, with all of its warts, and to work with it as best we could."

This memoir is rich with information. Although Wickham at times overstates the limits of U.S. influence, his basic point is correct: Koreans, not Americans, were going to decide the fate of Korea. It is also clear that cultural misperception complicated relations. General Chun Doo-hwan, the leader of the coup, failed to recognize that civil-military relations in the United States were different from those in Korea and therefore incorrectly assumed that Wickham played a role in formulation of policy.

Overall, the United States was fortunate to have as talented an individual as Wickham in place during this difficult time. Officers assigned to Korea or to any position abroad where they must deal with matters that involve factors that transcend those of an operational or tactical nature can profit from this book.

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Hill, Richard. *Lewin of Greenwich: The Authorised Biography of Admiral of the Fleet Lord Lewin*. London: Cassell, 2000. 443pp. £25

Having served with Admiral of the Fleet Lord Lewin as a midshipman, Prince Philip, the duke of Edinburgh, notes in his foreword that in 1979 Lewin was the last Chief of Defence Staff in the United Kingdom to have served in the Second World War. It was serendipitous that this experience proved to be a force multiplier in his final challenge before retirement, as he masterminded the Falklands War alongside the prime minister, Margaret Thatcher. Conscious of the crucial importance of ensuring the coherence of what he called "politico-military issues," or what we now call the maintenance of a policy-strategy match, Lewin knew that success depended upon being heard as the single military voice within the War Cabinet, and on his remaining at Thatcher's side throughout.

Richard Hill's carefully researched biography of Lewin paints the portrait of a man who, from a relatively humble background in the 1930s, achieved the highest military position in the British armed forces, beginning and ending his career with warfare, at different ends of the spectrum. Hill himself retired from the Royal Navy as a rear admiral, having worked for Lewin in a number of appointments. Near the end of Lewin's life, Hill was asked by Lewin to write his biography. Consequently, Hill presents an extremely authoritative and sympathetic account of the great man's life, spanning four decades of dramatic change in postwar history and relating Lewin's part in the radical restructuring of the British armed forces, the legacy of which is very much in evidence today.

Predictably, Hill deals with Lewin's appointments sequentially. In this way, the biography divides itself very clearly into two parts, reflecting the marked differences between service at the front line in an operational unit and the cut-and-thrust of the Ministry of Defence.

The first half moves swiftly through Lewin's childhood before concentrating on his wartime experience, the highlight of which was his appointment in the Tribal-class destroyer HMS *Ashanti*, which played a crucial part in the North Russian convoys. *Ashanti* was then tasked to join Operation PEDESTAL in 1942, to convoy critical supplies to the besieged island of Malta; the advance of Erwin Rommel's Afrika Korps on El Alamein had been largely a result of the Allies' inability to use the forces based in Malta to cut German supply lines. The epic of PEDESTAL and the drama surrounding the torpedoed oil tanker *Ohio*, before it was towed into Valetta to the delight of the populace, is a tremendous story in itself. *Ashanti* rode shotgun on *Ohio* to Malta and then was dispatched to prepare for the next convoy to North Russia. As a sub-lieutenant, Lewin distinguished himself with great aplomb and finished the war having been mentioned in despatches three times and awarded the Distinguished Service Cross for "gallantry, skill and resolution . . . escorting an important convoy to North Russia in face of relentless attacks by enemy aircraft and submarines." Postwar, his very swift promotion provided him with three commands, the last of which was the aircraft carrier HMS *Hermes,* aboard which he faced the challenges posed by the Aden crisis and the Six Day War of 1967.

In the second half of the biography, Hill's emphasis moves from narrative to analysis. Lewin's appointments in the Ministry

of Defence, dealing with issues at the strategic level, exposed him to the ill-defined world of negotiation and compromise and to the requirement to balance the myriad of interests between politics, the defence industry, the research lobby, academia, and the military itself. Here, Hill's greater depth and increased granularity of analysis provide a far better insight to the man, who wrestled with the introduction of Trident as Britain's strategic deterrent, and with the reorganization of the highest levels of defence to establish the primacy of the Chief of the Defence Staff over the service chiefs. Lewin's open mind, calm and modern style of leadership, and determination to deliver a viable and flexible defence for the United Kingdom of 2020 made him unique amongst his peers and still marks him out as an inspiration for all today. His vision of the establishment of a genuinely joint-service culture and of a balanced fleet that is fully interoperable with the Army and Royal Air Force and has a global reach, with a resulting capability to act as a force for good on the international stage, still exists today and continues to be refined in an uncertain world.

With the Quadrennial Defense Review in progress, the latter half of the biography will especially appeal to most of this journal's readership. It will be of real value to Naval War College students only a few years removed from their first assignment to the Department of Defense in Washington. Having gone myself straight from frigate command and the U.S. Naval War College to the Ministry of Defence for the first time—to face the Strategic Defence Review (our QDR)—I would have found Hill's insight into Lewin's match-winning formula an extremely useful preparation. Notwithstanding the time lapse and slight cultural differences, the frenetic activity and the importance of networking skills and integrity are the same in the Ministry of Defence and the Department of Defense, and the wheels of progress still move quite slowly in both London and Washington.

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Sandars, C. T. *America's Overseas Garrisons: The Leasehold Empire*. New York: Oxford Univ. Press, 2000. 345pp. $65

Christopher Sandars, a career civil servant at the British Ministry of Defence, has written a concise and judicious account, based on published sources, of the unique global security system developed by the United States in the years after World War II. Convinced that this American system was neither a traditional empire nor an attempt to gain worldwide hegemony, he describes it as a "leasehold empire," a novel security system necessitated by America's anticolonial tradition and by the surge of postwar nationalism, in which the United States negotiated a series of base agreements with largely sovereign states. His study traces the development of this system and the enormous variety within it, ranging from colonial relationships with Guam, Hawaii, Panama, and the Philippines to basing rights by virtue of conquest in Germany, Italy, Japan, and South Korea, to the revival of wartime arrangements in Great Britain, and to the acquisition of heavily circumscribed rights in some Middle Eastern nations.

In dealing with these categories, Sandars provides a brief history of America's

political relationship with each nation, a detailed account of the bases acquired, a shrewd analysis of the various quarrels that emerged, and a careful description of the changes that occurred over the fifty years covered by this book. With some nations, such as Japan, the security relationship displayed a remarkable continuity, while in others, such as Panama and the Philippines, growing nationalist tensions forced the United States eventually to close its bases. America's relationships with Greece, Spain, and Turkey, new allies in the Mediterranean, were always filled with difficulties, while the United States was never able to obtain access to permanent bases in the Middle East. In this area of the world it had to rely on mobile forces and the prepositioning of military equipment.

By the mid-1980s America's leasehold empire was under serious strain, beset by nationalist pressures and by what some scholars described as imperial overreach. Sandars believes that critics like Paul Kennedy overemphasized the gap between American resources and obligations, and failed to anticipate the end of the Cold War, the revival of the American economy in the 1990s, and the agility with which the United States adjusted to the new international environment and redefined its informal empire. Between 1989 and 1995 the number of U.S. troops permanently based overseas fell over 50 percent, from 510,000 to 238,000.

Sandars speculates that America's leasehold empire will last, on a reduced scale, far into the new century. "After a long period of mismatch," he writes, "the demands of the U.S. global security system and the resources to sustain it are now back in equilibrium." He is convinced that the benefits of this worldwide system of military bases far outweigh the costs, and he praises the accomplishments of American foreign policy in the second half of the twentieth century. The United States, he concludes, "has emerged with credit and honor from this unique experiment of policing the world, not by imposing garrisons on occupied territory, but by agreement with her friends and allies."

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Sarantakes, Nicholas Evan. *Keystone: The American Occupation of Okinawa and U.S.-Japanese Relations.* College Station: Texas A&M Univ. Press, 2000. 264pp. $34.95

In the after-action report on the U.S. occupation of the Rhineland following World War I, Colonel I. L. Hunt wrote, "The history of the United States offers an uninterrupted series of wars, which demanded as their aftermath, the exercise by its officers of civil government functions." "Despite the[se] precedents," he lamented, "the lesson seemingly has not been learned." The military returned to this tradition of forgetting after World War II. Subsequent to that second global conflict, U.S. forces assumed responsibility for over two hundred million people in occupation zones in Asia and Europe at a cost of over a billion dollars a year, yet official military histories barely touch the topic. Texas A&M University professor Nicholas Evan Sarantakes steps in to fill part of the void with a thought-provoking case study of the American occupation of Okinawa from 1945 to the island's formal return to Japanese sovereignty in 1972. Sarantakes's thesis is that bureaucratic infighting shaped the course of the occupation as much as did national

security strategy and foreign policy. This finding parallels other research on U.S. postwar operations.

Sarantakes begins his narrative with the 1 April 1945 amphibious assaults launching Operation ICEBERG, an imperfect but ultimately successful campaign. This story has already been well told (particularly in George Feifer's *Tennozan: The Battle of Okinawa and the Atomic Bomb* [1992]), but Sarantakes's version is briskly written and engaging. His purpose in beginning with the fight for the island is to illustrate the interservice disagreements that marred operations—difficulties, he argues, that foreshadowed future problems.

The fundamental obstacle, Sarantakes finds, was that the United States lacked an overarching strategy for what to do with the islands. Normally, the military wanted to jettison occupation duties as quickly as possible; Okinawa was a rare exception. Both the Army and the Navy saw the island as a potential base from which to guard against a resurgent Japan or uncooperative Soviet Union. After a few typhoons demonstrated the vulnerability of harbor facilities, the Navy dropped its interest in Okinawa. The Army, however, saw utility in staging troops and bombers on the island and assumed overall control of the occupation. An Army commander was appointed high commissioner, making him the senior U.S. military, political, and diplomatic representative.

The dynamics driving the occupation of Okinawa bear striking resemblance to other major postwar peacekeeping and nation-building efforts, in Germany, Italy, Austria, Japan proper, and Korea. In the early years, 1945–48, high commissioners had a great deal of autonomy in shaping and implementing policies. At the same time, they had scant resources for managing the occupations, with the result that their efforts to rebuild countries, institute the rule of law, and reconstruct civil societies were limited. In addition, commanders faced such challenges as monetary reform, black-market activity, crime by occupation troops and civilians, housing shortages, poor race relations, and forces ill prepared, inadequately trained, and ineptly organized for occupation duties.

As the Cold War heated up, the U.S. State Department took the lead in setting occupation policies. Most high commissioners became civilians; again Okinawa was a notable exception. The Department of State and the Pentagon were often at odds. The military wanted to hold forward bases like Okinawa, while the State Department lobbied to withdraw troops in order to build up good will with fledgling Cold War allies. The debate over Okinawa was a case in point. Sarantakes documents well the titanic 1961–64 struggle between the U.S. ambassador to Japan, Edwin Reischauer, and General Paul Caraway, U.S. Army, the commander of forces on the island.

The Cold War stimulated overseas investment in strategic areas and kept the troops in place. These commitments allowed for the eventual stability, security, and economic development that would have shortened the requirement for occupation in the first place. These bases did serve their intended purpose. Okinawa was a key support facility during the Korean and Vietnam Wars, and then the major staging base for Marine forces (a role that it continues to play).

The belated return of the island to Japan in 1972 concluded an arguably successful but, as Sarantakes demonstrates, troubled occupation. His research suggests

important lessons for the practitioners of military operations other than war. Effective peacekeeping and nation building are not cheap, easy, or brief, but their execution can be greatly facilitated by competent, cohesive, and effective interservice and interagency teams.

JAMES JAY CARAFANO
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Joint Force Quarterly

Paul, Septimus H. *Nuclear Rivals: Anglo-American Atomic Relations, 1941–1952*. Columbus: Ohio State Univ. Press, 2000. 266pp. $42.50

With the collapse of Soviet power and the end of the Cold War, the paradigm that helped to explain that era shifted. Scholars seeking to understand better the period are now free to reassess that era, taking into account other variables in the power calculus with the same degree of attention previously concentrated upon the Soviet Union. To cite just one example of this paradigm shift, since the opening of recent British archives scholars have concluded that British foreign and defense policy had a much more decisive impact on the early Cold War than was apparent in earlier considerations. The new study by Septimus H. Paul is one such reassessment.

Paul is a professor of history at the College of Lake County in Grayslake, Illinois. His *Nuclear Rivals* is a meticulous examination of Anglo-American wartime collaboration in the development of the atomic bomb, followed by the decision of the United States after the war to deny Great Britain the fruits of that collaboration—the requisite technologies to build a British atomic bomb. To British eyes, this was a betrayal of solemn (if secret) promises made by President Franklin Roosevelt to Prime Minister Winston Churchill during the war and of understandings between President Harry Truman and Prime Minister Clement Attlee afterward.

Part of the complexity of Anglo-American relations is to be explained by their multileveled nature. The alliance against Hitler during World War II forged a common front, which coexisted with substantive differences over grand strategy and the postwar political-economic settlement, particularly on questions relating to open markets and decolonization. The desire of the British to exercise joint partnership with the United States in the monopoly of the atomic bomb, and the American reluctance to do so, proved to be particularly divisive. These profound differences continued into the postwar world but were overshadowed by the American and British governments' perceived fear of the common threat from Soviet Russia. One of the truly valuable contributions of *Nuclear Rivals* is Paul's fidelity to this complexity and to the sources in relating the story of American collaboration and noncollaboration with Britain in atomic weapons development. Paul makes no attempt to sweeten or marginalize the differences between the two nations in this area; his approach is explicit, without attention to peripheral issues.

The major contribution of this book is its attention to what used to be called in the literature "the raw materials question." This relates to the American attempt during World War II to secure a monopoly of the world's uranium supply. One complication for the Americans was that the source of the highest-quality uranium, absolutely indispensable for building an atomic bomb, was the then Belgian

Congo. Paul presents a compelling picture of Anglo-American maneuvering—on the American side, for an indefinite monopoly over the uranium output of the Shinkolobwe Mine; and on the British side, to secure first an allocation of uranium on a fifty-fifty basis with the United States, and then to trade off the British allocation in return for the technical details of the American atomic bomb. In this relationship, the British had rather decisive advantages, which they did not fail to exploit fully—a particularly close relationship with the Belgian government, and the fact that British investors owned 30 percent of the shares of Union Menère du Haut Katanga, which owned the Shinkolobwe Mine. Paul's appreciation of this intimate relationship and its consequences for the United States is worth noting. Should Great Britain be so disposed, "it could and would secure a monopoly over the Belgian Congo raw materials. The United States would then be in a most disadvantageous position." When the British in 1946 threatened to end the Combined Development Trust (CDT), the agency, established in 1944, responsible for joint acquisition and allocation of raw materials, the United States capitulated to British demands and agreed to a fifty-fifty allocation of uranium with Britain. This equitable allocation allowed Britain to amass a huge stockpile, without which it could never have detonated an atomic bomb in October 1952. By 1947 the United States was experiencing a severe shortage of uranium, which could be met only from supplies in the Congo and from that British stockpile. Tough negotiations secured Britain an exchange of atomic information in return for American access to all Congo allocations to be made in 1948–49 and, if needed, additional supplies from the British stockpile. This arrangement was sanctified in a "modus vivendi" signed on 7 January 1948. The political counterpoint to this "agreement" could be found in the characterization by Edmund Gullion, a special assistant to Undersecretary of State Robert Lovett: Gullion had suggested calling this agreement a "modus vivendi," since that was "a term most often used to describe the relations between adversaries driven by circumstances to get along together."

The single area where I find myself in disagreement with Paul is his assertion that "American postwar atomic energy policy would be formulated, for the most part, not by the President but by this [government] bureaucracy." This is a very wide generalization, not supported by the evidence. On the contrary, no president has abdicated his responsibility for the formulation of nuclear weapons policy to a bureaucracy, however talented. Paul himself makes this very point at the outset of his book, arguing that when Roosevelt and Churchill secretly negotiated the Hyde Park aide-memoire in September 1944, they agreed to continue postwar atomic cooperation. While that promise was disingenuous on Roosevelt's part, the key point was that "the decision was made with no input from the President's advisers." President Truman's action in signing the McMahon Act in August 1946 is perhaps the clearest indicator of his intent to oppose the sharing of America's atomic secrets with *any* nation, Britain included. The McMahon Act prohibited transferring to any other nation the scientific and technological information necessary to manufacture an atomic bomb. The successful detonation of a British hydrogen bomb in May 1957 led President Dwight D. Eisenhower to overrule such advisers as the chairman of

the Atomic Energy Commission, Admiral Lewis Strauss, and to secure an amendment to the Atomic Energy Act of 1958. This amendment provided for a renewed bilateral exchange of nuclear weapons technologies with Great Britain. The extent to which presidential advisers got out in front of nuclear policy and played the role of staunch opponents of bilateral cooperation is well and properly documented in *Nuclear Rivals*. Indeed, the accurate portrayal of their roles in both the Roosevelt and Truman administrations, in war and peace, is a major asset of this book. Yet any implication of presidential abdication of the policy formulation role in this sphere is a misconstruction.

The caveat above notwithstanding, Septimus H. Paul has made a particularly valuable contribution to the literature. In his use of sources, Paul reveals a sophisticated understanding of the power calculus and refocuses our attention on some of the seminal issues and disagreements of the early Cold War period, with all their complexities. For just these reasons, *Nuclear Rivals* should be required reading not only for historians of this era but for all students of national security policy making.

MYRON A. GREENBERG
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Daso, Dik Alan. *Hap Arnold and the Evolution of American Airpower*. Washington, D.C.: Smithsonian Institution Press, 2000. 233pp. $23.95

Henry "Hap" Arnold was one of our great commanders. The only airman to hold five-star rank, he led the Army Air Forces through World War II with a strength, tenacity, and vision that was instrumental to victory, while at the same time breaking his own health. Dik Daso, a former Air Force fighter pilot, Ph.D., and curator at the National Air and Space Museum, tells Arnold's important story with unusual insight and verve.

Graduating from West Point in 1907, Arnold earnestly desired an assignment to the cavalry but instead was posted to the infantry. Despite exciting and formative experiences in the Philippines, he still hankered for the cavalry. Once again he was refused. He then transferred to the Signal Corps, and in 1911 he became one of our first military pilots. Fate. Over the next three decades he became widely recognized as an outstanding aviator (he won the coveted Mackay Trophy twice), commander, and staff officer. When Oscar Westover, chief of the Air Corps, was killed in a plane crash in September 1938, Arnold took his place and led the air arm for the next seven years. But the long hours and incredible pace he set for himself took their toll. He suffered severe heart attacks during the war, and another in 1950 took his life.

Other books have been written about Arnold, and his memoirs are packed with detail. Nonetheless, Daso was able to uncover family sources and documents not previously used that shed new light on Arnold the man, husband, and father. This approach makes for fascinating reading; it is always a comfort to know that great men are as human as ourselves.

Daso also highlights a unique aspect of Arnold's life—his appreciation for the integral relationship between science, technology, and airpower. Early in his career Arnold recognized that a second-rate air force was worse than none at all. The path to aviation leadership was a strong research-and-development program and a commitment to progress. Arnold's vision in this regard was extraordinary. He

consciously pursued contacts with leading scientists, industrialists, and engineers, planting in them ideas and urging them to move more quickly and boldly. He supported research into cruise and ballistic missiles, precision weapons, jet engines, and rockets. Daso highlights the special relationship between Arnold and the brilliant aeronautical scientist Theodore von Kármán, who in 1945 wrote the seminal *Toward New Horizons*, a detailed look at the future of air and space technology that would serve as the blueprint for Air Force research over the next two decades.

Daso points to Arnold's holistic approach to airpower as one of his great insights. Arnold understood that it took more than a collection of military airplanes to generate airpower. Needed also were a strong industrial base, robust research and development, a broad aviation infrastructure, a large pool of qualified personnel, and, perhaps most importantly, a clearly devised, coherent, and codified doctrine for the employment of those assets. Arnold, believing unshakably in the importance of strategic airpower, labored to ensure that America possessed all of these necessary factors.

One of the most interesting and insightful portions of this account is the epilogue, where Daso expands upon a letter that Arnold wrote shortly before his death regarding his views on leadership. The general noted several vital qualities: technical competence, hard work, vision, judgment, communication skills, a facility for human relations, and integrity. One could also add mental and physical courage. As he went higher in command and responsibility, Arnold was continuously faced with tough decisions. Having the courage to do the right thing regardless of the consequences and regardless of the effect on friends and family is enormously difficult. This list of attributes, which Arnold displayed in abundance throughout his career, serves as the perfect summation for both the book and the man.

One might quibble with Daso over what he left out of this book. He spends almost no time discussing broad issues of strategy in World War II, targeting debates, interservice rivalries, or Arnold's relationships with his commanders. It is useful to recall here that Arnold's title was "commanding general" of the Army Air Forces; he was indeed that. He had far more control over his air forces and personnel than does a present-day chief of staff. An exploration of this aspect of Arnold's life would have been interesting.

Nonetheless, Daso's research is prodigious, the numerous illustrations are excellent, and his writing style is eminently pleasing. This is an excellent biography of a great commander; it should be read by airmen of all ranks, scholars, and other services' officers who wish to understand better the key influence in the development of the U.S. Air Force.

PHILLIP S. MEILINGER
Science Applications International Corporation
McLean, Va.

Sebag-Montefiore, Hugh. *Enigma: The Battle for the Code*. New York: John Wiley & Sons, 2001. 403pp. $30

Hugh Sebag-Montefiore has given us a scholarly and thoroughly researched account of the code breaking that staved off unsustainable losses of merchant shipping and thereby led to victory in the Battle of the Atlantic. This book is particularly recommended to communications and communications security personnel.

Enigma may be scholarly, but it certainly is not dull. It is difficult to put aside and is, in the modern vernacular, "a good read." The author traces the history of the Enigma machine from its beginnings in Belgium and Germany in 1931 to what the author titles the "Last Hiccough," in June 1944. Most war college graduates consider themselves informed on the events of World War II, but few fully realize how crucial breaking the codes was to winning the war or appreciate the blood, sweat, guts, and luck that made it possible.

In 1931 Hans Schmidt, who has been called the "Enigma spy," gave some Enigma manuals to the French. Two years prior, the German embassy in Warsaw asked Polish customs to return a box to Germany that had evidently been sent to Poland by mistake. A suspicious customs officer alerted the appropriate officials, and when the box was opened, an Enigma machine was found inside. Polish cipher authorities spent the weekend examining it before sending it back to Berlin, with no one German wiser. The Poles took advantage of their find and managed to break the code. With the beginning of the war and the subsequent fall of France, the Polish code breakers, who had fled to France, were in a precarious position. Their efforts to escape to England were frustrated by seemingly endless French bureaucratic roadblocks. Finally, some succeeded in crossing the English Channel and joined the British code breakers at Bletchley Park.

There are really two facets to this story: acquiring the material, and then developing the capability to use it. The credit for the first requirement belongs to the Royal Navy, and later to the U.S. Navy. Credit for the second goes to the code breakers themselves.

The film *U-571* is fictitious but draws upon the capture of *U-110* by HMS *Bulldog*. At its conclusion, full credit is given to *Bulldog* and other people and ships that captured Enigma machines, including Admiral Dan Gallery and the men of USS *Guadalcanal*'s hunter-killer group who captured *U-505* in June 1944. The author comments on Admiral Ernest King's severe displeasure at the salvage of the submarine; had word filtered back to Germany, the high command would have been certain that the Enigma secret was no longer safe. If there was a leak, however, evidently it was not acted upon. In addition to U-boats, German trawlers, weather ships, and supply ships were boarded and their code material taken to the Allied code breakers. Although the popular recent movie might be thought to be overdrawn, in fact the boarding officer and one enlisted man from HMS *Petard* went down with *U-559* after retrieving its code books.

The author points out that the German high command discounted any indication that its code might have been compromised. It did not indoctrinate submarine personnel sufficiently to ensure that Enigma material was safe from enemy hands. Weighting cipher books seems elementary. Still, none of us is blameless. Code books from American destroyers sunk in the Solomons washed ashore, much to everyone's embarrassment, but fortunately they were recovered by "the good guys."

This book contains a considerable amount of technical information about the Enigma machine, how it was put together, and about the code books that made it work. Fortunately, most of this is contained in appendices, so the flow of the narrative is not disrupted. For the untutored, the technical data make clear

the enormous effort and highly talented people required to succeed in such difficult and frustrating work. Communications have come a long way since 1945, but a detailed description of Enigma of World War II may be useful to young security communications personnel of today. After all, if you want to know where you are going, you should know where you have been.

Hugh Sebag-Montefiore has done a real service to all navies by digging out this story and unfolding it so well. Had the code breakers not been successful, the world might look much different. At the least, some of us would not have survived, and our children and grandchildren would not have been born.

WILLIAM B. HAYLER
Captain, U.S. Navy, Retired

FROM THE EDITORS/OF SPECIAL INTEREST

In Memoriam

Three current Naval War College students—participants in the Nonresident Seminar Program of the College of Continuing Education—were killed in the 11 September 2001 terrorist attack on the Pentagon:

Lieutenant Commander Dan F. Shanower, U.S. Navy
Lieutenant Jonas Panik, U.S. Navy
Ms. Angela Houtz

NAVAL HISTORICAL CENTER'S ELLER PRIZE

The Director of Naval History has awarded honorable mention in the Rear Admiral Ernest M. Eller Naval History Prize, for the best article published in 2000, to Dr. Donald Chisholm of the Naval War College, for his "Negotiated Joint Command Relationships: Korean War Amphibious Operations, 1950," which appeared in our Spring 2000 issue. The article also won our own Edward S. Miller History Prize, and honorable mention in the Surface Navy Association/U.S. Naval Institute Literary Prize competition.

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Those who returned our tear-out card in the Spring 2001 issue need not return the 2002 mailer; if in doubt, however, please send in the card.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION

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Pelham G. Boyer, Managing Editor