

SSQ

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Toward Restructuring National Security

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Air, Space, and Cyberspace Power for the Future?

We live in uncertain times. Just a few years ago there was a rather common acceptance that US hegemony—political, economic, cultural, and military—would continue. The dominance of US airpower, and of USAF airpower in particular, seemed similarly guaranteed. Today, neither condition seems as certain as it did in the 1990s and early 2000s. The domestic and international consensus that reflected US interests and desires has given way to challenge and debate over nearly every policy issue. While the United States maintains the world's strongest economy, there are signs of concern that ripple across the globe. The pervasive influence of what Thorstein Veblen presciently called “conspicuous consumption” has sparked resentment and reaction against US culture from societies that struggle to reconcile images of US wealth with persistent poverty among their own populations. US military dominance has remained equally conspicuous since before Operation Desert Storm, which showcased American airpower.

Today, Airmen find themselves focused on present battles. Those in Iraq, Afghanistan, and lesser known theaters rely on the full range of USAF capabilities. While these battles rage, our leaders fight to recapitalize the force to preserve our lead. The measures of success in these different, but related, battles are remarkably similar. One hears veterans returning from Central Command's area of responsibility (AOR) talk with justifiable pride about the high quality and responsiveness of Airmen within the theater. One also hears veterans from the “Washington AOR” talk about winning the fight for dollars and programs. We must also simultaneously build a strategic vision of how air, space, and cyberspace power will secure the nation in the future.

As our chief of staff, Gen T. Michael Moseley, wrote in the first issue of *Strategic Studies Quarterly* (SSQ), it is time to recapitalize our Air Force—for Airmen to think strategically—if we are to secure the future for those who come after us. Airmen have a long intellectual heritage in this arena that involves forging partnerships among military, government, and civilian thinkers. Most of SSQ's military readers are familiar with the history of the Air Corps Tactical School of the 1930s. For our government and civilian readers, the tactical school was where Airmen of the interwar

years developed the theory of daylight precision strategic bombardment. They challenged accepted wisdom about how to fight and win wars. Their efforts to challenge accepted paradigms laid the foundations for the war-winning strategies of World War II. They thought of war from a unique perspective predicated on airpower as the dominant weapon.

Today, we need thinkers who will challenge accepted paradigms to propose new ways of fighting from air, space, and cyberspace. Sometimes our perspectives become too mired in present battles, our references too wedded to established joint and service doctrines, and our willingness to follow promising ideas too restricted by fear of failure. If today's Airmen hope to secure the future, they must reach beyond the boundaries of their technical and intellectual universe. They must develop relationships with people who are working on problems and innovations that have strategic implications for the future—people who seek to revolutionize the world. Airmen, in short, must win the present fights, in whatever AOR they occur, while they simultaneously think strategically about winning future fights with ideas, concepts, organizations, and tools that do not exist today.

The strategic question of the moment may be, When we win the war on terror, and if we recapitalize our technology, what contribution will air, space, and cyberspace make that leads to a more secure nation in the future? I have every confidence that Airmen, along with other military, government, and academic professionals, can solve present-day problems—the resources of the nation are at their disposal to do so. But how many of our intellectual partners are thinking about the challenge after next? How many are laying the intellectual and theoretical foundations for capabilities we do not even know we will need? And how do we give such ideas a fair hearing if we allow the urgency of the present to dominate and jeopardize the necessity of thinking clearly and forthrightly about future air, space, and cyberspace capabilities upon which our nation will depend?



STEPHEN R. LORENZ
Lieutenant General, USAF
Commander, Air University

Toward Restructuring National Security

David A. Deptula, Lieutenant General, USAF

Significant changes must be made in the structures and processes of the U.S. national security apparatus.

—United States Commission on National Security/
21st Century, February 2001

THE GOLDWATER-Nichols Department of Defense (DoD) Reorganization Act of 1986 (Public Law 99-433), passed two decades ago, has served our nation well. It strengthened combatant commanders, raised the quality of joint staffs, and advanced joint force operations. We owe a debt to its authors. Goldwater-Nichols helped move the American military from the independent, barely deconflicted operations of the early 1980s to the sustained interoperability that has proved so effective in our present era of near-continuous combat.

For all its success, the focus of Goldwater-Nichols was limited. Though it was spawned largely from a Senate study which examined the national security apparatus writ large, Goldwater-Nichols aimed only at the DoD. By focusing on military integration, and bypassing the other national-security-related departments and agencies, the act reinforced an existing “over-militarization of thinking in the West.”¹ In his book *The American Way of War*, Russell Weigley ascribes this phenomenon to an image of US foreign policy that most Americans carried forward from World War II, a decisive, total war ending in unconditional surrender for the Axis powers.

As Goldwater-Nichols enters its third decade of service, our security situation has changed radically. The Cold War, which largely shaped the national security apparatus, ended shortly after Goldwater-Nichols was enacted. Globalization and the knowledge economy, underwritten by enormous advances in information technologies, have transformed every aspect of society, including national security. Far from being immune to

Lt Gen David A. Deptula is deputy chief of staff for Intelligence, Surveillance, and Reconnaissance (ISR), Headquarters US Air Force, Washington, DC. He is responsible to the Secretary and Chief of Staff of the Air Force for policy formulation, planning, evaluation, oversight, and leadership of Air Force ISR capabilities. As the Air Force's senior official of the intelligence community, he is directly responsible to the Under Secretary of Defense for Intelligence.

this change, military strategy, operations, and tactics are at its nexus. We have exploited advanced information technologies to increase effectiveness dramatically. The product of our military capabilities is far different today than it was in 1986.

Technology has not been the only change. The global political order transformed with the collapse of our only peer competitor, the emergence of new centers of state power, and the rise of nonstate groups with strategic capabilities. These historic shifts altered the priorities and structures of national security.

As we adjust our military organizations and capabilities to this new environment, we face a series of challenges that constrain our options. We must posture to fight hot wars of indeterminate length in Iraq and Afghanistan while finding ways to pay for high reset bills, growing personnel costs (especially in health care), rising operations and maintenance costs brought on by aging fleets and infrastructure, and spiraling modernization costs. We must also anticipate shifts in federal fiscal priorities driven by an aging population and commensurate increases in social services spending. Furthermore, if we are to retain our position as the world's sole superpower, we must be prepared for—and capable of—achieving our national security objectives across the spectrum of operations, not just a portion of that spectrum.

Given the extent of change in technology, geopolitics, and economics, it is only prudent to adjust our basic national security structures and policies accordingly. If we want national security capabilities and institutions that will thrive in the emerging environment—not simply cope with it—we must be willing to restructure our national security tools.

Unfortunately, we face significant challenges in updating our national security apparatus to match our changed security environment—entrenched constituencies and institutions that routinely oppose fundamental change. One need only consider the ultimate impact of the Base Force (1992), the Bottom-Up Review (1993), the Commission on Roles and Missions (1995), the National Defense Panel (1997), and the 1997, 2001, and 2005 Quadrennial Defense Reviews. Each of these comprised monumental efforts, creating serious recommendations—the majority of which remain unimplemented. We cannot underestimate difficulties inherent in attempting even modest, much less substantial, change to our security structures and concepts.

In early 2001, the United States Commission on National Security in the 21st Century (USCNS/21), also known as the Hart-Rudman Commission—after a two-and-a-half-year effort by a distinguished group of

national security experts—made 50 recommendations that were perhaps the most comprehensive and prescient to date with respect to restructuring our nation's security institutions.² In February 2007, former senator Gary Hart summed up the acceptance of the effort: "I am sorry to say that of those 50 specific recommendations, no more than two or three have been adopted."³ In 2002, the Center for Strategic and International Studies (CSIS) initiated its project, *Beyond Goldwater-Nichols (B-GN)*, recommending significant defense reform, completing the effort in 2006⁴—key recommendations have not been enacted.

We must continue to relentlessly pursue appropriate change in our national security architecture and overcome institutional resistance. The next administration has an opportunity to do this by expanding the next Quadrennial Defense Review (2009) beyond the DoD. Given the environment in which we find ourselves today, and the future we can see emerging, an across-the-board redesign of our security structures, relationships, and resourcing arrangements is very much required for all the reasons so well articulated in the USCNS/21 and B-GN studies. A new defense review, even perfectly executed by DoD in isolation, will simply not move our larger national security architecture to any significant degree.

To embark on fundamental redesign of the roles and missions of our larger national security establishment, we need to replicate the audacity, toughness, and vision of the authors of the previously mentioned national security reform efforts. As a starting point, we must focus our restructure along at least three axes: integrating all elements of national power, valuing knowledge as a prerequisite to action, and achieving service interdependence.

Diplomacy, Information, Military, Economics: Achieving Synergy with All Our Security Institutions

While Goldwater-Nichols addressed better integration of military forces, what we need today, and will need even more so in the future, is vastly improved unity of effort⁵ across all the pillars of our nation's security—diplomacy, information, military, and economics (DIME). America's power does not rest in our military alone. We are strongest when we bring the full weight of national power to bear. Applied with strategic skill, these four levers of national power—when acting in concert—can

deliver decisive effects at particular points in time, often at less cost in blood, treasure, and national prestige, than can military action alone.

The need for integrated effort across all our instruments of power is well known. It is the reason for the creation of the National Security Council in 1947. However, the world has changed substantially in the past 60 years. We now face unconventional threats with the capability to create strategic effects. To defeat small, innovative, and adaptive threats, we need to apply our DIME options using information age economies of speed, not just industrial age economies of scale. Unfortunately, we are poorly organized to do so, our DIME structures and relationships having been forged in the aftermath of World War II with the National Security Act of 1947. As mentioned earlier, the security environment of 2007 is a far cry from that of 1947—it is long past time for a change.

As noted during Adm Michael Mullen's confirmation as Chairman of the Joint Chiefs of Staff:

Fundamental to change within the Armed Forces is agreement on the appropriate distribution of roles and missions among the military departments and several independent agencies. The last two Quadrennial Defense Reviews have acknowledged major shifts in the strategic environment facing the Nation, but recommended no changes to roles and missions and only minor adjustments to the form and size of the defense establishment.⁶

As we revisit roles and missions across the DoD, we must integrate our results with the “several independent agencies” on the east side of the Potomac River. Just as military strategy is a subset of national strategy, military roles and missions are subsets of national security roles and missions. It does little good to perfect military capabilities and concepts of operations (CONOPS) in isolation from the other elements of national power. Our greatest national security challenge today is to build a truly integrated architecture that optimizes capabilities in the DIME domains—an architecture that melds these capabilities in the context of long-range strategies and plans to defeat the broader spectrum of threats facing the nation.

Intelligence, Surveillance, and Reconnaissance: Knowledge as a Decisive Weapon

The information age, perhaps more than any other factor, has brought the seams between the elements of DIME into stark relief. We can no

longer afford the simplicity of four instruments of national power operating in near isolation from one another. War is not fought only within the military element—diplomatic overtures, information campaigns, and economic incentives all must play in a coordinated way. In the knowledge age intelligence, surveillance, and reconnaissance (ISR) is the key integrating element for effective strategic and operational policy development. Yet our current architectures and frameworks for melding national and military intelligence ways and means toward a common end are antiquated. Consider the warrantless wiretaps debate—regardless of where one comes down on the civil liberties aspect, regulating intelligence collection according to laws written before cell phones and the Internet existed is strategically untenable.

There is a natural tendency for institutions to use new systems as adjuncts to current capabilities. For example, we initially used desktop computers primarily as expensive typewriters. We embraced them because they made word processing far easier. It took time for us to recognize their transformative power; far from making current systems more efficient, networked computers opened up entirely new capabilities. We eventually restructured our offices and ways of conducting business to realize these capabilities. Similarly, the US Navy initially employed aircraft carriers primarily “in support of” surface fleet operations. Carrier-based aircraft enhanced the accuracy of naval guns and protected the fleet from surprise. However, time and events (such as *Taranto*⁷ and Pearl Harbor) eventually led the Navy to recognize aircraft carriers as the supported element, with the rest of the surface fleet operating “in support of.” Fundamental changes in naval organization, equipment, and CONOPS followed.

The lessons learned are twofold. Radically new technologies can grow from supporting to supported status, and it will take time for established institutions to accept the new reality. Institutions typically value emerging technologies solely in terms of contributions to present missions and CONOPS. It takes time to recognize the new missions they offer and the new CONOPS they demand.

This is the situation we find ourselves in today with ISR. ISR is currently moving from a supporting capability to the leading edge of national security operations. ISR—and cyber capability—will be key in countering weapons of mass destruction and net-enabled transnational terrorist forces that threaten international stability, and thereby our own nation’s

security. It will lead the fight by the year 2025 and will be the key suite of capabilities to get us from here to there.

During the Cold War, we had the advantage of a relatively static adversary. We could periodically peer over the Iron Curtain to fix the enemy's position, identify his capabilities, and assess his intentions. Against this massive, monolithic, and largely predictable threat, a "shooter heavy" footprint was appropriate.

Today, our enemies are evolving, adapting, and highly malleable. We can only imagine the ways in which they will threaten us. Like a liquid that gravitates toward our weakest points, they aim to defy our grasp. Because they infest urban areas and hide among civilian populations, finding the enemy has become a great challenge. Finding is one part of the problem—sorting enemies from the civilian populations in which they hide is the other. In this sense, knowledge—having always been key—is assuming precedence over kinetics as the prerequisite "weapon" of war. As with every other aspect of the information age, victory will go to those who create and exploit knowledge faster than their opponents, and ever increasingly in ambiguous and uncertain situations. Meeting this challenge requires a shift from the Cold War mind-set that placed ISR in a merely supporting role to a new understanding that in the twenty-first century, ISR will perhaps be the key to achieving US national security objectives.

Make no mistake about it; we still need "fifth generation" systems such as the F-22 to rapidly defeat evolving advanced threats as part of a joint approach. We must always stay a generation ahead of any conceivable threat—that is what gives us our asymmetric advantage. However, we must also capitalize on all the capabilities resident in modern systems and take a transformational, vice traditional, view of those capabilities. We are in an era when we can already kill practically any target we can find. Our chief challenge is to *find-fix-track* low-signature targets, however fleeting and unique they may be. Without this capability, precise shooters are of little use.

Today's enemies are not massing on the other side of the Fulda Gap. One of their primary goals is to negate our force application advantage by escaping detection. This is why ISR now makes up the majority of our current operations. It is why we fly far more ISR sorties every day than strike or airlift sorties. Of course, the sortie ledger is dependent upon the character of the conflict, but the fact remains that ISR is in great demand.

One of our significant challenges is how we will satisfy the growing demand for ISR in a future of constrained defense resources. One way is to capitalize on the sensor capabilities inherent in our modern aircraft. Traditional nomenclature constrains understanding of capability in this regard. For example, the F-22 is not just an F-22—it's an F-, A-, B-, E-, EA-, RC-22. It's a flying ISR sensor that will allow us to conduct network-centric warfare inside adversary battlespace from the first moments of any conflict, in addition to its vast array of attack capabilities. The fact that it's not opposed by like fighters means we can depend on those robust capabilities all the more—if we understand this new relationship between ISR and kinetic capabilities. This kind of capability-based perspective will be increasingly required in an era of constrained defense resources. While we will still build dedicated ISR platforms, we must incorporate ISR capabilities into all our platforms—air, space, sea, land, and cyber. Doing so will also require adjusting concepts and processes for the manner in which we allocate, plan, and employ these systems.

In the future we will judge the value of platforms in terms of their ability to sense and communicate, as well as by how they perform in their traditional roles. Think of this approach as the observer effect extended to modern warfare. The simple act of observation causes targets to react. When we observe an enemy we immediately change his activities. Based on his reaction, we can bring all elements of American power—DIME—to bear as needed. However, it all starts with our ISR advantage. ISR has never been more important than it is today—and that importance will only increase for the foreseeable future.

Interdependence: Stopping Duplication, Increasing Effectiveness

Since the advent of Goldwater-Nichols, a joint approach has moved contingency concepts of operations from independent, deconflicted service-oriented operations to sustained interoperability. We now need to take the next step—the move from service interoperability to service interdependence. In light of prevailing uninformed views concerning the current engagements in Southwest Asia, it is instructive to briefly review the way America fights wars, and that essentially boils down to this: individual services do not fight wars—combatant commands fight wars under the unifying vision of a joint force commander (JFC).

Jointness means that among our four services, a separately developed and highly specialized array of capabilities is provided to a JFC—his or her job is to assemble a plan from among this “menu” of capabilities, applying the appropriate capabilities, at the right place, at the right time to create the desired effect. It does not mean four separate services deploy to a fight and simply align under a single commander. Nor does jointness mean everybody necessarily gets an equal share of the action.

The reason joint force operations create synergies is because this approach allows each service to develop, cultivate, and provide capabilities that spring from its core competencies. When a single service attempts to achieve war-fighting independence instead of embracing interdependence, jointness unravels; war-fighting effectiveness is reduced; and costly redundancies, gaps, and conflicts likely abound. The last thing we need to do today as we face a resource-constrained future is to turn back the clock on Goldwater-Nichols by allowing services to develop excessively redundant capabilities, thereby rejecting the very premise of joint war fighting.

Unnecessary and Costly Redundancy—An Example

The debate over the development, acquisition, control, and employment of unmanned aerial vehicles (UAV) illustrates the necessity (and the benefits) of adopting an interdependent approach. The services’ inherent responsibility to the American taxpayer to operate effectively and efficiently is even more critical in light of increasing resource constraints. In this context, the cost of duplicating multiple UAV program offices, independent training operations, logistics and maintenance operations, and intelligence support facilities; sustaining multiple procurement contracts; and establishing separate employment CONOPS that create seams requiring additional investment in command and control architectures that are redundant and cumbersome deserves careful scrutiny. This approach does not pass the common-sense test with respect to economy of effort, and it severely complicates efforts to get ISR information to America’s joint forces around the world.

Each of the Quadrennial Defense Reviews to date has recognized the benefits of ensuring joint efforts are efficiently managed and resourced for effectiveness. Advantages to the nation derive from designating a single focal point—a single service—to lead theater-capable (medium- and high-altitude) UAV design, acquisition, and procurement. A single ser-

vice merging and streamlining the separate-service acquisition stovepipes that currently exist for theater-capable UAVs could eliminate costly duplication of effort. Immediate benefits would include reduced research, development, testing, and evaluation costs as well as decreased per-unit procurement costs resulting from greater economies of scale.

Joint Publication 2.0, *Joint Intelligence*, states, “Because operational needs for intelligence often exceed intelligence capabilities, prioritization of collection and analysis efforts and ISR resource allocation are vital aspects of intelligence planning.”⁸ Demand for UAVs exceeds supply today and will continue to exceed it even after the services build all their currently programmed UAVs. This reinforces the notion that the best possible way to get ISR from theater-capable UAVs to our joint forces is by allocating the capability to where it is needed most across the entire theater. It argues against assigning theater-capable UAVs organically to units, thereby denying their benefit to the entire theater joint fight.

If we wish to bring the full measure of our military power to bear, we must evolve past the current practice of permitting individual services to seek self-sufficiency. We must embrace the necessity—and the benefits—of service interdependence. The goal is to provide a highly developed array of specialized capabilities from which the JFC can choose, without suffering from either significant overlap or gaping holes, or conflicting concepts of operations. The price to be paid, however, for seamless interdependence is the requirement to surrender the “what’s mine is mine, and what’s yours is joint” attitude—each service cannot continue to acquire and wield every tool in the toolkit for itself.

We must seek interservice reliance, recognizing that this affords us the ability to specialize in, and to capitalize on, individual service strengths. This is the crux of jointness—not each service fighting its own battle in a carved out piece of space. Such fluidity across the entire battlespace, however, requires interoperable equipment in the regimes where service operating domains do overlap. This is not possible, however, without the kind of equipment interoperability that starts on the design table: ergo, the appropriateness of—and rationale for—an arrangement where one service oversees the acquisition and standardization of theater-capable UAVs.

It is also important to recall that the war on terrorism is, by definition, “global.” At some point theater-capable UAVs will be allocated to theaters other than Central Command—perhaps in locations without a significant US ground presence. A plan that assigns theater-capable UAVs to each

division means that if a division isn't in the war zone then neither are the UAVs. This is not the best approach to deliver ISR war-fighting capability to our combatant commands.

The objective of a joint approach is to get theater-capable UAV ISR distribution to be as transparent to users as the global positioning system (GPS) satellite signal is to all the services. GPS is 100-percent owned and operated by one service—the Air Force—and yet it is used by all the service components without any concern. We can do that with theater-capable UAVs if the DoD embraces and adopts a joint approach to UAV acquisition and operations.

Imagine what GPS would look like had the DoD lacked the foresight to give the responsibility for that function to a single service. In all likelihood we would have three separate systems, marginally compatible and interoperable, and operating under different schemas. Plans would have to account for when and where you were employing, and what system would be providing your time/position fix. The Army's system would be optimized over major-threat land masses . . . the Navy's over the open seas . . . the Air Force's to fill gaps and stitch seams. Not to take this case too far, the point is that the longer you let multiple agents build proprietary solutions, the harder it is to stitch everything together into an interoperable whole, the greater the compromises of keeping legacy systems alive, and ultimately the longer you put off interdependence.

The UAV case is but one example of the potential of service interdependency. In an environment of increasingly constrained resources, neither the taxpayers nor the DoD can afford the inefficiencies that result from individual service stovepipes. There is little value added when multiple services build separate design and procurement efforts for the same capability that will ultimately be up to JFCs to employ.

As this article is written, the Air Force has diverted over 20,000 Airmen to drive convoys, conduct interrogations, guard prisoners, and conduct a host of traditional Army core functions in Southwest Asia. The Air Force is helping the Army in its time of need, but does this division of labor make sense when, at the same time, the Army is spending billions of dollars and maintaining thousands of personnel to operate the same class of UAVs the Air Force has been operating and sustaining for over a decade? This is contrary to an interdependent approach and is an example of why we need a serious review and course correction on service roles and missions.

With interdependency, each service builds upon its core strengths. Attractive as this may sound, however, interdependency will not happen in a vacuum. It will require specific actions on the part of leadership across the services and support, endorsement, and the commitment to make the right—albeit courageous decisions—from DoD senior civilian leadership. These relationships should extend to interagency and multinational partners. Such an approach will culminate in real joint training. Because we will fight the way we train, real interdependence must start on the training fields, not the battlefield.

Finally, and most importantly, interdependence requires trust among military professionals. Absent this professional trust, the DoD will have lost an opportunity to create and harness the interservice synergies that result from building upon—rather than duplicating—each service's strengths.

Summary

The United States faces a series of challenges that will test our leadership and imagination. We must simultaneously adjust to the opportunities and challenges of the information age plus the new security situation formed after the Cold War, the growth of new centers of state power, and the emergence of nonstate groups with the capability to achieve strategic effects. We must accomplish all this in a demanding fiscal environment formed by massive resource requirements driven by explosive growth in nondiscretionary federal spending for social services.

Given these realities, we would be smart to adjust our security focus around knowledge. Information is key to achieving desirable outcomes across the spectrum of operations. Among the areas deserving special emphasis are enabling economies of speed across all elements of national power—diplomatic, information, military, and economic—and raising the priority of ISR to reflect its criticality in each of these domains.

The structures we built over the post-World War II decades are ill-suited to today's environment. The National Security Act of 1947 forged unification of armed forces, but at a price of compromise. To assuage the variety of parochial interests of the day to get the construct enacted, this act contained built-in inefficiencies, overlaps in functions, and out-of-balance responsibilities—all of which are too costly to sustain today. Organizational evolution has not kept pace with events.

As the DoD has evolved in the post–Cold War environment, Goldwater-Nichols has created unintended consequences. It has resulted in a focus on military integration, but failing to develop a corresponding focus on incorporating all the elements of national power has delayed us from achieving true integration of all the pillars of national security. It has also led to an unsophisticated interpretation of jointness that drives some to seek homogeneity among the services, while others use “jointness” as an excuse to seek participation in every possible mission. This has led some services to seek self-sufficiency rather than synergy—and to the degree they have been allowed to do so has actually resulted in divergence from the tenets of Goldwater-Nichols by some as they replicate other services’ core competencies. It is time for an honest and comprehensive review of service roles and missions using interdependence as the new benchmark.

Beyond service roles and missions, we have the capability to create incredible synergy by embracing jointness across all the elements of national power. Accordingly, it is time to also conduct a fundamental review of our entire national security establishment leading to an appropriate restructure. Building on the reviews and recommendations of the USCNS/21 and B-GN efforts, the next administration should seize the opportunity presented by the 2009 Quadrennial Defense Review and expand it beyond the DoD. More importantly, it’s time for less study and more action. Such a restructure will undoubtedly prove difficult to implement. Regardless, we must seek fundamental change in our national security architecture if we are to succeed in meeting the security challenges that the future will bring to our nation. 

Notes

1. George F. Kennan, *Russia, the Atom, and the West* (New York: Harper, 1958), 18.
2. The three reports and recommendations of the U.S. Commission on National Security/21st Century can be found at <http://govinfo.library.unt.edu/nssg/Reports/reports.htm>.
3. Mickey McCarter, “Revisiting the Hart-Rudman Commission,” *HSToday*, quoting former senator Hart at the National Press Club, 7 February 2007, http://www.hstoday.us/Washington_Today/02122007_Washington_Today_Gary_Hart_Commission.cfm?storyid=72, 12 Feb 2007.
4. Beyond Goldwater-Nichols (BG-N) was conducted in three phases completed as follows: Phase I—March 2004; Phase II—July 2005; Phase III—July 2006. Reports for each phase can be found at www.csis.org/isp/bgn/.
5. The DoD defines *unity of effort* as the “coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization.” *Department of Defense Dictionary of Military and Associated Terms*, 12 April 2001 (As Amended through 12 July 2007), http://www.dtic.mil/doctrine/jel/new_pubs/jp1_02.pdf.

Toward Restructuring National Security

6. “Advance Questions for Admiral Michael G. Mullen, USN, Nominee for the Position of Chairman of the Joint Chiefs of Staff,” Senate Committee on Armed Services, 31 July 2007, <http://armed-services.senate.gov/statemnt/2007/July/Mullen%2007-31-07.pdf>.

7. The Battle of Taranto occurred 11–12 November 1940. This was the first all-aircraft naval attack in history conducted by the British Royal Navy by carrier aircraft in the Mediterranean against the Italian fleet harbored at Taranto.

8. Joint Publication 2.0, *Joint Intelligence*, 22 June 2007, II-6.

Adapt or Die

The US Military's Responsibility to Protect America by Leading the Transformations in Science and Technology

Newt Gingrich

with

Ronald E. Weisbrook, Captain, USN

IN THE past 200 years, America evolved from a third-rate power to become the unrivaled global superpower based on the rapid scientific and technological advances of the nineteenth and twentieth centuries. These revolutions in science and technology triggered more profound changes than had been experienced in the previous 6,000 years.

These ongoing and accelerating revolutions in science and technology will continue to be dominant features of the next 30 years for our military, our national security system, and our society. It is essential for American national security and for the survival of Western civilization that the United States continues to be on the leading edge of innovative thinking and scientific breakthroughs. It is imperative that our nation's military officers appreciate, most especially, that the failure of American society to lead in science and technology could result in American defeat on the battlefield. History is littered with great powers that watched their preeminence pass to others as they failed to adapt to scientific and technological change. The American military officer, therefore, has a special responsibility to do all within his or her capability to lead America and keep it the leading power in science and technology on the planet.

Newt Gingrich is former Speaker of the US House of Representatives. Under his leadership, Congress passed welfare reform, the first balanced budget in a generation, and the first tax cut in 16 years. Recognized internationally as an expert on world history, military issues, and international affairs, the former Speaker serves as a member of the Defense Policy Board, is the longest-serving teacher of the Joint Flag Officer Warfighting Course for major generals, and teaches officers from all five services as a distinguished visiting scholar and professor at the National Defense University.

CAPT Ronald E. Weisbrook is currently assigned to the Office of Global Maritime Situational Awareness. Previous assignments include Director of Aircraft Development on the Joint Strike Fighter Program and commanding officer of Navy fighter and aircraft test squadrons. He is a graduate of the Air Command and Staff College and the USAF Test Pilot School. Captain Weisbrook cowrote this article while serving as the Navy Federal Executive Fellow at the American Enterprise Institute where he supported Mr. Gingrich.

Technological and Geopolitical Realities of the Twenty-first Century's Rapid Scientific and Technological Advances

The twenty-first century is continuing to build upon the advances of the past 200 years. We are entering a period where nanotechnology and high-speed computing capability, coupled with massive database storage, shape the near-term future. But this is just the beginning; we should anticipate that we will see more technological innovation in the next 30 years than we have seen in all of American history.

This assertion is based on the extensive studies of Alvin and Heidi Toffler, experts at the National Science Foundation, MIT, Georgia Tech, NASA, and elsewhere. It is an objective fact that there are more scientists alive today than at any other time in history. These scientists have better instrumentation and greater computational capacity than ever before—and both are improving every day. Scientists are now globally linked to each other through the Internet and e-mail and to the global market economy by licensing, royalties, and venture capital. As a result, we can expect four to seven times as many scientific discoveries and technological innovations in the next 30 years as in the previous 30.

For instance, in the early 1970s, the lunar landing modules of the Apollo missions used an onboard computer of approximately 40-kilobyte capability—less than the computer capacity of a UPS delivery truck. Now we speak casually of gigabytes and terabytes. The sixth-generation wireless handheld being launched by Microsoft has the power of a laptop computer. Project that rate of growth 30 years into our future, and you can sense just how profoundly different our world might well be!

If the current rate of knowledge creation is four times faster than that of the previous 30 years, then planning for 30 years hence is equivalent of being in 1880 and trying to plan for today. Imagine trying to conceptualize in an era of pre-airplane, pre-motion picture, pre-mass-produced automobile, preradio, and—above all else—precomputer. If you asked someone in 1880 what would most influence warfare in the next 30 years, nobody would say that German Nicholas Otto's work with internal combustion engines would revolutionize all warfare by 1915 or that, in 1903, the work of the two Wright brothers in Ohio would shape the outcomes of war in the twentieth century.

If the rate of change accelerates to seven times faster than today, as some predict, then trying to grasp the sum total of knowledge and technological

change in the year 2037 would be like someone in 1660 attempting to accurately predict what our world would be like today. Try to imagine a doctor in London in 1660, who has been taught that bubonic plague is caused by “bad humors” in the air, trying to apply—let alone grasp—microbiology, CAT scans, or endoscopic surgery.

Economic globalization adds another multiplier effect to scientific and technological change. The fall of the Berlin Wall not only ended the Cold War but also opened the world economy to those countries shifting from economically isolated communist dictatorships to free-enterprise democracies. This, combined with the rise of the economies of both China and India, has generated a demand for innovation and a worldwide focus on scientific and technological development, fueled and fanned by the advent of the Internet and workflow software that allow worldwide connectivity and collaboration.

A reasonable assessment of this state of affairs is that, at a minimum, two-thirds of the new science will come from outside the United States. This dispersal of knowledge creation across the planet represents a fundamental change from the last 200 years in which the industrial revolution allowed Great Britain to dominate the nineteenth century, while the twentieth century became the “American Century” due to our technological and scientific prowess. With these thoughts in mind, we must ask ourselves whether by the year 2050 it will be said that the twenty-first is another American Century or if another region or nation, perhaps even one hostile to us, will lay claim to this leadership.

Overlaying this discussion about the explosion in science and technology in the twenty-first century are the geopolitical realities of our time. China and India are rising economic powers that are rapidly becoming more significant military players in international affairs. China specifically raises concerns as it rebuilds and modernizes its military capability. Fueled by rising oil and natural gas prices, Russia has reawakened from its post-Cold War slumber to become, once again, more active and forceful on the international scene. The European Union adds a new dynamic in the international economic scene and as a union presents a much larger economic—and regulatory—force to be reckoned with than any of its singular member countries. Alliances among rogue dictatorships such as Iran, Syria, North Korea, and Venezuela, along with transnational terrorist groups such as al-Qaeda and Hezbollah, create unique challenges to the sovereignty and survival of America and its allies.

Societal Constraints in a Changing World

America's Flawed Educational System

In 1998 the United States Commission on National Security in the 21st Century (the Hart-Rudman Commission) was established to look at the entire range of US national security policies and processes required in light of a new world emerging from the collapse of the Soviet Empire. That new world encompassed not only the changed geopolitical reality after the Cold War but also the significant technological, social, and intellectual changes that were emerging. In its final report, dated 15 February 2001, it fully recognized the significance, threat, and challenge to the United States that the explosion of science and technology represented:

Americans are living off the economic and security benefits of the last three generations' investment in science and education, but we are now consuming capital. Our systems of basic scientific research and education are in serious crisis, while other countries are redoubling their efforts. In the next quarter century, we will likely see ourselves surpassed, and in relative decline, unless we make a conscious national commitment to maintain our edge.¹

The commission concluded that basic scientific research was underfunded and that a complete failure and breakdown in math and science education existed within the United States. It went on to conclude that the inadequacy of the research and education systems was a greater threat to national security than any potential conventional war that one might imagine.²

This report came out 18 years after the Reagan administration published *A Nation at Risk*, which warned that the failure in education was a major threat to America.³ Our response as a nation to both of these reports has been dismal. To move forward, the focus of our strategic planning efforts must include how we can begin to influence and shape the military. Even more importantly, however, both the federal government and the American people must respond to the magnitude of challenges that the explosion of science and technology poses for America.

As a nation we are failing in education in the critical subjects that are needed to stay relevant in a world faced with an explosion in science and technology. *Windows of Opportunity*, published in 1984, put forth several educational concepts that are still as relevant today as they were then. It suggested that the educational system must fundamentally change to one focused on learning, not teaching. In addition to the old "three R's" of reading, writing, and arithmetic, it must be based on the fundamen-

tals that today include computer literacy and information management, defined as *triliteracy* by Alvin and Heidi Toffler. All the tools of society and technology must be embraced in the educational process, including partnerships with the business community. Finally, the higher education system must be challenged to become more intellectually open and conducive in encouraging students to develop a positive attitude toward life-long learning about their rapidly changing world.

Immigration and Visas: Current Limits on Importing Brainpower

One of the phenomena that allowed America to overtake England and become a leader in science and technology in the second half of the twentieth century was the contributions of immigrants. Three waves of immigrants that came to the United States led us to possess an artificially high proportion of the world's best scientists during that time.

The first wave was the result of a Nazi Germany that drove a generation of world-class Jewish and anti-Nazi scientists out of Europe. The likes of Albert Einstein, Edward Teller, Niels Bohr, and thousands of other well-trained scientists and future scientists fled the Nazis as they destroyed freedom in Europe. Additionally, the New School in New York actively sought out intellectuals who were dismissed from teaching and government positions by Hitler and Mussolini, viewing itself as a place of refuge for European immigrant scholars and intellectuals.

The second wave arrived as the result of communism. Another generation of scientists fled Eastern and Central Europe, including notably talented mathematicians such as German scientist Wernher von Braun, who was instrumental in developing American missile and space programs. In dozens of fields, these European scientists provided a level of talent and knowledge that accelerated American leadership in many scientific fields.

The final wave resulted from a combination of war, political instability, and poverty in the third world. Many of the brightest students on the planet came to the United States for their graduate education and then stayed.

It would not be farfetched to assert that without these immigrants the United States would not have won the race to develop the atomic bomb (of the 86 major scientists working on this program, 22—over 25 percent—were foreign immigrants, and nine of these were Nobel Prize winners), would not have led in space exploration, and would not have revolutionized communications and computer technologies.

As the global marketplace increases global wealth and the standard of living, we are seeing a commensurate increase in educational performance—particularly in scientific and technological disciplines. The United States still leads the world in the number of premier academic institutions, but other countries are raising their performance standards. In 2006, a *London Times* survey of higher education cited that the United States had 54 universities ranked in the top 200 of the world, but China (including Hong Kong) had 11.⁴ Similarly, while US universities still attract many of the world's brightest students into their graduate and doctoral programs, they no longer remain in the United States to contribute to our capabilities after graduation in the numbers that they once did. Now many take the knowledge and skills they learn here to their homelands where they compete against us.

Since 9/11, the attitude of the United States has changed significantly with respect to foreign nationals who wish to immigrate. Unfortunately, the current visa system is not conducive to inviting or allowing individuals needed to keep us on the cutting edge of science and technology to enter the United States. America must still lean on foreign intellectuals for the very reason that was highlighted in the Hart-Rudman Commission report. This problem was highlighted in April 2005 by Bill Gates, who stated that Microsoft is having difficulty filling jobs because of tight visa restrictions on foreign workers, inferring that visa restrictions are keeping too many bright, educated people from working in this country.⁵

We must understand that immigration policy is not only about closing the door to those who intend to harm us, but that it is also about encouraging the best and brightest to come to America where they can be free to learn, work, and profit while the nation as a whole benefits by their presence. For this reason, H-1 visas for scientifically and technically educated people should be increased.

The Two Cultures: Antitechnological Bias in America

C. P. Snow argued in a 1959 lecture entitled “The Two Cultures” that the Western world was increasingly splitting into opposing intellectual traditions: one which understood the humanities but was ignorant of science and mathematics, and another which was immersed in the sciences but had relatively little knowledge of the humanities and social sciences.⁶ In *Windows of Opportunity*, the contention is made that the United States began suffering an acute case of Snow's Two Cultures syndrome with the Free Speech Movement. The Civil Rights and anti-Vietnam movement added to the crisis, and by the late

1970s America was caught up in an epidemic of technological abhorrence—a “New Age Ludditism” led by much of the intellectual, political, cultural, and media elites. This antitechnology movement thus became a justification for not mastering the mathematics and sciences that are so crucial to America’s future. This resistance persists today and has become culturally ingrained. If such thinking is not profoundly reversed soon, we will lose the race for scientific and technological leadership. The models by which our government, society, educational systems, and military functioned during the Industrial Revolution gave us the edge for survival in 1945. The model even worked throughout the Cold War with some modifications, but it will not give us security 30 years from now—or, for that matter, even today.

Maintaining Dominance

Current government systems and policies are not conducive to ensuring the United States maintains its leadership in a rapidly changing world. Military leaders cannot shy away from this challenge. To succeed in ensuring the United States survives in the future, they must take part in elevating the discussion and force the country to think through the implications of these challenges despite the resistance of bureaucracies and the opposition of those who want to hide from the challenge.

It may mean proposing innovative ideas to reinvigorate our focus on math and science education. It may mean becoming immersed in policy discussions that may influence our competitive advantage within the world economy, such as tax, regulatory, or trade policy, ensuring all future policies are vetted to determine their impact on national security. It may mean championing and proposing increases to funding for nondefense basic research and development. However, it must mean proposing and supporting innovative ideas to energize the private sector to become more engaged in advancing technology, such as a prize-based system for the first successful manned trip to Mars and back. Not only do such prize systems historically conquer challenges far more quickly and more cheaply than bureaucratic models, but they are also a great way to capture the imagination of society, especially the young, and advance science and technology.

Adopting New Innovations Faster

The current military procurement and doctrine development process is not conducive to a world experiencing a rapid growth in science and

technology. This has not always been our history. We must recapture the urgency and capability of past national mobilization efforts to ensure success as we confront the challenges of the future.

To win the Civil War, Lincoln mobilized the North. The Union Army went from a standing army of little more than 20,000 men to one million strong. Production capacity ramped up to meet the challenge of equipping and sustaining this new army, thus enabling the North to defeat the South in four years. Even as the war was fought and won, the Northern economy boomed and within two years launched itself into the great technological project of the nineteenth century—the building of the transcontinental railroad.

Confronted with a two-theatre world war, Franklin Delano Roosevelt again called upon the United States' superior technological and industrial capability. In 1938, Portugal fielded a stronger army than ours. In the span of only four years, we built and equipped a powerful force and achieved victory. The Army grew from a size of roughly 200,000 to over eight million. Over 63,500 new naval ships were constructed for the US Navy, Coast Guard, and Army. More than 300,000 military aircraft were produced for the US military and its Allies.⁷

Compare this history with the present day. In 1981, the US Air Force first developed the requirement for the replacement of the F-15. The result was the F-22 that became operationally deployable in December 2005. That development cycle was six times the length of American participation in World War II.

Another example is the Army's Future Combat Systems (FCS). The FCS concept originated in the 1980s and was envisioned to network 18 discrete tactical brigade systems comprised of ground platforms, unmanned aircraft, robots, and reconnaissance platforms, allowing brigades to disperse at the battalion and company levels. An initial memorandum of agreement was signed in early 2000 to begin the conceptual design phase, with intent to initially deploy the system in the 2015 time frame. In short, today's acquisition programs—the nexus of technology, science, and economics—fall far short of our nation's needs if we are to compete in an increasingly complex future. Our programs have become too costly, too complex, and too lengthy to cope with cost-effective, innovative, and fast-paced competitors.

Modernizing Strategy and Doctrine

Commensurate with the ability to integrate advances in science and technology into fielded systems is the ability to advance strategy and doc-

trine at the same pace. In the past, we have quickly seized upon advances in technology and developed a doctrine to exploit them. For instance, the American Navy embraced the capability of the submarine during World War II and developed a strategy and doctrine that changed the nature of warfare at the time into a theatre-wide campaign of attrition. However, recent events still show how cumbersome the system can be. Six years after 9/11, the military has still not produced a definitive updated contingency plan to fight and win the global war on terror. A revised counterinsurgency manual was not published until early 2007, some four years after the start of Operation Iraqi Freedom.⁸

Urban warfare will be the dominant form of physical conflict for the foreseeable future. In this asymmetric fight the enemy deliberately hides among innocent—and often intimidated—civilians. We have made enormous investments in winning control of the ocean, air, space, and the high-tempo conventional war. However, is our system responsive enough to allow us to focus science and technology on this problem and agile enough to quickly field systems and develop the doctrine to dominate this new urban form of warfare?

It clearly has not been so far. We are suffering from a failure of political imagination, bureaucratic rigidity, and timidity rather than a failure of technology. It is incumbent upon senior Department of Defense civilian and military leaders to realize that the current red-tape-ridden system—in which it took 23 years to build an additional runway at the Atlanta International Airport—will virtually guarantee that the United States will suffer defeat in the competition for the future. We must solve the problem of getting the procurement and doctrine development process to fit in the development time of science and technology.

In addition to developing prize-based systems, as previously mentioned, a parallel “Team B” doctrine and procurement system should be implemented to find low-cost innovative systems and approaches that would enable it to defeat more expensive, more slowly evolving forces. This Team B should have the ability to procure systems off the shelf and in a variety of ways outside current rules and legislation. The Team B advisory committee should include a number of entrepreneurial CEOs who have actually used the new approaches successfully. As a general rule, in a science- and technology-based entrepreneurial free market, one should expect more choices of higher quality at lower cost—consider the evolution of televisions, cell phones, personal computers, and the cost of food. In all of

these free-market areas, the pressure of competition, the rapid innovation by entrepreneurial startups, and the rapid adoption of better solutions consistently supplied the customer with better choices at lower cost. These systems have involved iterative experimentation with an acceptance of legitimate failures, leading to new knowledge and new understanding in moving toward the ultimate goals of radically more successful systems. Edison's estimated 49,000 experiments to invent the electric light and the Wright brothers' consistent acceptance of five or six crashes a day as the necessary cost of learning enough to invent the airplane exemplify this combination. Innovation of this type should be the goal of the Team B operation; it should start with at least \$5 billion a year and be challenged with fielding systems and teams that can actually defeat the regular forces and equipment of the current system. For major areas of development, there should be force-on-force competitive investments. For example, the Team B system should be resourced to develop an unmanned aviation unit designed to compete head-to-head with traditional manned systems to see if it is possible to actually defeat the current force with a totally new and different design.

We cannot assume the shackles that are imposed on our current system will also be a constraining factor on our competitors or foes—in fact, we can assume that the constraints imposed on our system will confer an advantage upon our adversaries. As the global market expands vertically and horizontally, more of the world will engage in science. More new knowledge and technology will be created elsewhere as a result. As stated earlier, we should expect that two-thirds of future breakthroughs will be developed outside the United States. However, this is not a new phenomenon. Prior to 1500, China was the center of scientific knowledge in the world. From 1500 to 1940, Europe was the center. The United States has only been the center of scientific endeavor for the past 60 or so years.

As a society and a government, we must ensure that we are actively scanning the world for new knowledge. This effort is as important as our other classical intelligence-gathering activities but can be accomplished much more easily by utilizing scientists in the public domain. All worldwide scientific publications and proceedings from international scientific conferences should be translated within 90 days and put into a database developed to be easily searched by American scientists. American scientists need to become extremely active in international conferences by traveling in order to observe and learn from new developments. Visiting scholar

programs, along with funding of sabbatical programs for American scientists to work in foreign laboratories, should be expanded so that a greater exchange of information may be achieved.

Protecting America against New Technological Vulnerabilities

Advances in information technology and software have opened areas of new vulnerabilities. Foreign organizations are continually probing both government and private corporations. Today, the most dangerous spies are sitting somewhere in China using computers to try to hack into the Web sites of not only government agencies but also those of private corporations, such as Boeing and Lockheed-Martin, searching for new technological and industrial capabilities. This increased threat to our national security must be a continued focus of our intelligence and counterintelligence activities. Every effort must be made to avoid being surprised as a nation by guarding our scientific and technological advances.

An additional problem generated by this global economy is that systems in the United States rely more and more on foreign-produced parts and software. Vigilance must be increased to ensure back doors or Trojan horses are not present in critical systems with pieces obtained from foreign countries.

A classic example of such a Trojan horse activity was undertaken by the United States during the Reagan administration. In his book *At the Abyss*, Thomas C. Reed describes an operation undertaken by the CIA against the Soviets. The CIA had obtained intelligence on critical technology the Soviets were trying to buy, such as advanced computer hardware and software. It had also developed a plan in cooperation with industry to sell the Soviets software that would fail or malfunction after a period of time, including programs designed to control the Soviets' natural gas pipelines. There was also an effort to develop slightly defective ball bearings for pumps. These developments were disguised as contraband high-tech materials, and the Soviets bought them through illegal sources. The net result was that when the deliberately faulty equipment malfunctioned, the controlling functions of the pipeline were destroyed—creating the largest nonnuclear explosion and fire ever seen from space.⁹ We must remain vigilant to ensure our government, economy, and military do not suffer a similar fate.

It is inevitable that scientific and technological advances will occur outside the United States in the future. These advances may come as a result of information stolen from the United States. Military leaders must accept

this as a fact and develop strategies and processes to recapture this knowledge and to protect our secrets. This may mean partnering with educational institutions or the National Science Foundation to develop programs to mine the worldwide knowledge base. Revamping security, intelligence, and foreign-procurement policies may be required. However, processes and systems must be developed to keep abreast of new knowledge and to protect our advancements.

Even as we work to keep abreast of the global intellectual activity in the areas of science and technology and bolster efforts to protect our advances, we can never be 100 percent certain of our enemy's capability. We must assume that he will be clever, determined, and courageous. The twentieth century is filled with examples of successful surprises, even against alert and observant countries. These surprises may be tactical, strategic, or technological.

At the beginning of World War II the United States did not fully understand the advances the Japanese had made in aviation warfare, both technologically and tactically. Gen Douglas MacArthur was convinced the Japanese were using German pilots because he could not imagine that Japanese pilots could wipe out his air force in the Philippines in four hours. Additionally, while America knew of the Japanese "Zero" because it had been used in China—some American pilots supporting the Chinese air force had even faced them—there was no analysis about them being capable of flying off their carriers. Their appearance over Hawaii was thus a complete and total surprise.

Similarly, at the end of World War II, we knew that the Soviet Union was working on building an atomic bomb. In 1945–46, we believed it would take the Soviets at least 10 to 15 years to complete the project. They accomplished the feat in 1949, thanks to their intelligence gathering and our failure to safeguard our secrets. Sputnik, another example of our intelligence failure, gave the Soviet Union a publicity advantage for which we were unprepared.

Finally, the Yom Kippur War in 1973 came as a complete surprise to the Israelis. Throughout the year, Egypt had been threatening war. Israel's intelligence service and its government, however, did not think any risk of war existed during the Ramadan and Yom Kippur holidays as both religious festivals prohibit warfare. Israel was generally surprised by both the timing and the size of the attacks.

In all of these events, both the United States and Israel had the capability to recover. Likewise, today we must have the same ability to recover from

potential surprise attacks. However, military leaders must never forget that our opponents will be clever, determined, and courageous while they think strategically through the process of what actions and policies can be developed to deal with this future growth in science and technology. As we move forward, we must develop an overmatch and enough redundancy so that “after the surprise” we can still win. The Israelis were forced on the defensive for two days in the Yom Kippur War. Yet, because of their superior technology, training, and tactics, they were able to recover, push back both the Syrian and the Egyptian armies, trap the Egyptian Third Army, and then finally force a cease-fire within the following three weeks.

Understanding That Leading in Science and Technology Is a Societal Challenge

We cannot reverse these trends by solely focusing on government reforms; we must also work to change society. If we try to rest on our past accomplishments, remain hesitant to move forward, or attempt to back away from the challenge, we will be left behind. To be successful, we must recognize what present trends mean for our future and take action to change course to ensure our leadership and security for that future. We cannot afford to follow strategies formulated for the past; scientific, technological, and economic trends that are shaping the future will require new approaches. For example, our schools today combine an agricultural-era 10-month school year (with the summer off for harvesting) with an industrial-era model based on a Monday-to-Friday workweek using 50-minute sessions conducted by a “foreman” at the front of the room. Additionally, we talk of placing computers in the classroom rather than placing the classroom inside the computer. We have not yet grasped that learning outside the school system is embedded in the computer and on the Internet and is available on demand with a great deal of customization for each learner. Our near-term focus needs to be on laying the foundations for government and societal systems that will be required to meet this daunting challenge.

For most of American history, our national leaders have been able to develop plans and strategies from positions of either parity or superiority compared to any potential competitor. From 1870 on, the United States has been the largest economy in the world. As a result, we assumed that we would be at least equal or superior to anyone else on the planet with respect to science and technology. Subsequently, our strategic thinking assumed we could drown our competitors or enemies with our industrial capacity.

For the first time since we surpassed Great Britain around 1870, America could be on the edge of losing both our economic and scientific advantages. Now we compete with the growing economies of China and India, whose populations are vastly larger than our own. To these economic challenges, Americans will have to remain at least four times more productive as there are four times as many Chinese or Indians as Americans. If we work diligently, we may keep pace with the booming Chinese and Indian economies. If we do nothing, the US economy will certainly fall to at least a distant third.

One of the realities of the closing of the gap in dominance in the area of science and technology between the United States and other global competitors is that a breakthrough anywhere in the world could be used against the United States. History has shown that a sudden shift in capability can lead to a shift in power. This phenomenon is best seen historically with the Japanese.

Japan undertook an effort beginning in 1887 to build the Japanese Imperial Navy. This was accomplished with the help of the British in the areas of training and ship development. Initially, the Japanese fleet was built in England, but soon Japanese ships were being built in Japan based on British designs. The final step was building ships based on Japanese designs that were better than anything afloat and led to the most decisive naval engagement of the twentieth century, the Battle of Tsushima in May 1905. The Japanese devastated the Russian fleet, capturing or destroying 31 of 38 Russian ships while suffering no losses of their own. In essence, this was a technological, scientific, and economic transfer. The British ship designs represented the technology, the Japanese development of indigenous designs and shipbuilding techniques was scientific, and the defeat of the Russian forces opened the Pacific to Japanese economic competition against European powers. Japan rose from a medieval country in the last half of the nineteenth century to a modern country defeating czarist Russia in 1905.

The same can be said about the rise of Japanese airpower. Japan embraced the new technology and understood its strategic and tactical significance as a force multiplier. This is especially true with respect to the naval airpower demonstrated at Pearl Harbor. An alternate history novel, *Pearl Harbor: A Novel of December 8th*, puts forth the notion that had the Japanese fully embraced the strategic and tactical significance of airpower, the attack on Pearl Harbor may have been even more profound. Ultimately, it might have changed the overall dynamics of the war. It was very fortunate for the United

States that the Japanese assigned the Pearl Harbor attack to a battleship admiral who did not fully understand the instruments he commanded.

It is imperative that as we think through how to effect changes to the systems that drive our government and society, we do so with the implicit understanding that we are now living in a much more competitive and hostile global market and one in which our competitive advantage is being challenged daily by both friend and foe alike. A breakthrough anywhere in science and technology could turn into a breakthrough against us.

In *Carnage and Culture*, Victor Davis Hanson argues that since the time of the Greeks, Western civilization has held military dominance, in part, due to its culture. He contends that Western values of capitalism, scientific inquiry, open debate, individualism, and rationalism together form an extremely lethal form of warfare that has been the West's asymmetric strength as its civilizations came to dominate civilizations that did not embrace such values. With this strength, Alexander defeated over 300,000 Persians with a force of 16–20 thousand.¹⁰ We must remember that this type of annihilation can defeat Western civilization if our society falls behind and fails to adopt and embrace societal advances. For example, in 1939 industrial Germany's Wehrmacht decimated the Polish cavalry—and later the entirety of the largely agrarian Polish society—because of Poland's reluctance to advance.

True annihilation occurs when one society gets out of sync with the competitive societies of its era. It is not just a force-on-force issue. A society must be able to sustain the totality of a campaign. It must not only move forward culturally, but it must also embrace and keep pace with scientific and technological advances. A society that cannot educate its children, one that cannot produce equipment, or one that cannot develop technology can easily become a victim on the wrong side of the knowledge and power equation. As Americans, we must not let ourselves go down this path.

Winning the Future: Core Elements of Strategic Leadership in Science and Technology

Revolutions in science and technology will be the dominant feature of the next 30 years. There will be a four- to seven-fold growth in science and technology, and two-thirds of it will be produced outside the United States. Senior military leaders must take an active role in ensuring that we

move society and the government forward to avoid even the slightest possibility of falling behind our competitors and opponents.

Our strategic thought process needs to focus upon developing a foundational system capable of meeting this challenge by mandating much broader thinking and trying to influence the thought process and policy in areas outside the traditional military spheres of influence. Changes must be made across both the public and private sectors. To be successful, we must fundamentally rethink the societal base, the educational system, the industrialization process, and the visa system. For instance, developing a high school JROTC program that focuses on math and science and pays students a monthly stipend would be an investment equal to the follow-on for the B-2.

Senior leaders must focus on how we can force American society to become capable of sustaining the relative advantage that we have enjoyed in the areas of science and technology for the last 200 years. We must learn to apply the forthcoming revolutions to solve our problems and to defeat our enemies strategically, operationally, and tactically. There are five underlying core elements that should dominate this strategic thought process. We must

1. assume the future will be defined by a global market and any breakthrough anywhere can be a breakthrough against us;
2. force thinking through the implications of these changes despite the bureaucracies and the cultural-political opposition;
3. get the procurement and doctrine development systems to accelerate to meet the development time of science and technology;
4. discover what new knowledge is being developed around the world, while at the same time protecting American advancements; and
5. assume our opponent will be clever, determined, and courageous and that a surprise is likely, and therefore we must develop an overmatch and redundancy in both national and homeland security so we can win “after the surprise.”

If we fail at this challenge and lose the relative advantage we have relied upon, no amount of clever military procurement will offset our gradual decay. During the darkest days of our Civil War, Pres. Abraham Lincoln wrote that “the dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulties and we must rise with

the occasion. As our case is new, we must think anew and act anew. . . . We must disenthral ourselves and then we shall save our country.”¹¹ His words are as relevant today as they were in 1862. Leading the world in science and technology is the fundamental challenge of American national security for our generation. 

Notes

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7. On the mobilization for the US Army, see <http://www.army.mil/cmh-pg/documents/mobpam.htm>; for the increase in Navy ships, see <http://www.coltoncompany.com/shipbldg/ussbltrs/wwii.htm>; and for aircraft production, see http://afhra.maxwell.af.mil/aafsd/aafsd_pdf/t079.pdf.
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9. Thomas C. Reed, *At the Abyss: An Insider's History of the Cold War* (New York: Random House Pub., 2004).
10. Victor Davis Hanson, *Carnage and Culture: Landmark Battles in the Rise of Western Power* (New York: Anchor Books, 2002).
11. Abraham Lincoln, “Second Annual Message [State of the Union address], December 1st, 1862,” John T. Woolley and Gerhard Peters, The American Presidency Project (Santa Barbara, CA: University of California), <http://www.presidency.ucsb.edu/ws/?pid=29503>.

Irregular Warfare

One Nature, Many Characters

Colin S. Gray

The conditions of small wars are so diversified, the enemy's mode of fighting is often so peculiar, and the theatres of operations present such singular features, that irregular warfare must generally be carried out on a method totally different from the stereotyped system [for regular war]. The art of war, as generally understood, must be modified to suit the circumstances of each particular case. The conduct of small wars is in certain respects an art by itself, diverging widely from what is adapted to the conditions of regular warfare, but not so widely that there are not in all its branches points which permit comparison to be established.

—Charles E. Callwell, 1906
Small Wars: A Tactical Textbook for Imperial Soldiers

Opening Shots

It is not possible today to talk about irregular warfare and counterinsurgency (COIN) without discussing Iraq. However, I am determined not to allow this article to sink into the great bog of endless opinion pieces on the state of play in that unhappy country. My solution is to say as little as I can about Iraq until I reach my concluding thoughts, when I will release my personal convictions briefly and directly. This should enable you to appreciate the argument but discount my conclusions, should you so choose. The comments on Iraq, in the main body of the paper at least, are intended to be scholarly and pragmatic, not political. Obviously, Iraq must dominate our view of the subject. Steven Metz is correct to assert that “when the United States removed Saddam Hussein from power in

Dr. Colin S. Gray is professor of international politics and strategic studies at the University of Reading, UK. The author of 22 books, his most recent (published in 2007) are *Fighting Talk: Forty Maxims on War, Peace, and Strategy*; and *War, Peace, and International Relations: An Introduction to Strategic History*. This article was originally a paper presented at the Air Force Symposium on Counterinsurgency, Air War College, Maxwell AFB, AL, 24–26 April 2007.

the spring of 2003, American policy makers and military leaders did not expect to become involved in a protracted counterinsurgency campaign in Iraq. But it has now become the seminal conflict of the current era and will serve as a paradigm for future strategic decisions.”¹

Thomas R. Mockaitis tells us that Iraq “is the insurgency from hell.”² I suggest that for all regular soldiers all insurgencies are hell-born, though admittedly some are more hellish than others. And to open one of my themes just a crack, William Tecumseh Sherman, a great American general, once said that “war is hell” (actually, those exact words were credibly attributed to him). With our sophistication and scholarship, and now our doctrine mongering, it is necessary to remember that we are talking about war, including a fair amount of warfare.

Insurgency, or irregular war, and warfare are global phenomena, and they always have been. I am providing an Anglo-American perspective because that is what I am and know best. This can appear to bias an analysis because it cannot avoid implying that COIN and counterterrorism (CT), and especially some pathologies in trying to deal with them, are unique to us. They are not.

When Ralph Peters urges a bloody, attritional approach on one of his more colorful days, he is talking the language of Roman generalship under Vespasian and his son Titus in their brutal suppression of the Jewish Revolt in Palestine in AD 66–77.³ Irregular warfare is an old, old story, and so are the methods applied to wage it, on both sides. Today’s motives for irregular warfare—supposedly so modern, even postmodern—lead some commentators to speculate about “new wars” as contrasted with “old wars.”⁴ If you are strongly of that persuasion, the best I can do is to suggest that you ponder long and hard on Thucydides and his famous and overquoted triptych of “fear, honor, and interest” as comprising the primary motives for political behavior, including war.⁵ Irregular warfare, of necessity in common with its Thucydidean motives, is about political power: who gets it, and as a rather secondary matter, what to do with it. That may seem a banal point, but really it is not. COIN is about the control of people and territory, not the remaking of civilizations, or even cultures. Crusaders make bad policy makers; they tend to be disinterested in strategy.

Also, speaking as a strategist, I have a professional dislike for impossible missions. Even if I do the wrong thing, I like to think that I can succeed. We strategists are pragmatic people, and we don’t like accepting long, adverse odds in pursuit of benefits of highly dubious worth.

From time to time, by and large deliberately, I will delve into the dark woods of scholarly quibbling, but I am painfully aware that scholars and officials, civilian and military, are apt to be mesmerized by their own conceptual genius. Particularly are they—perhaps are we (*mea culpa* also)—devoted to the process of analysis by ever finer dissection. We love our categories and our subcategories. Their invention gives us an illusion of intellectual control.⁶ We think we can improve our understanding of a subject as diffuse and richly varied as irregular warfare and insurgency by hunting for the most precise definition and subdefinitions. The results all too often are official definitions that tend to the encyclopaedic and are utterly indigestible. Or we discover a host of similar terms, each with its subtly distinctive meaning and probably its unique historical and cultural baggage. So, are we talking about irregular warfare, insurgency, low-intensity conflict, guerrilla warfare, terrorism, and so forth? The answer is yes, and more than those. Do the distinctions matter? Well, they can, because some words carry a heavy load of implicit and explicit implied diagnosis, wisdom, and advice. But always remember that conceptual sophistication can be overdone. In the COIN regard, it is a classic example of the sound economic principle of securing diminishing returns to effort. Of course, there is much more to war than warfare, but warfare is warfare, and the most core competency of soldiers is skill in inflicting pain, killing people, and breaking things. Also, just as we need to see irregular warfare in the context of COIN, or vice versa for my preference, so in addition we cannot permit ourselves to forget that insurgency is warfare. Sporadic, episodic, protracted warfare erodes the modern Western, and therefore the international, legal distinction between war and peace. Can we tell a context of war from one of peace? Do we know who are innocents and who are belligerents? Sometimes I feel compelled to return to basics with students to cut through a lot of the overelaborate theorizing and remind them that we are discussing war and warfare.

Next, because politicians, officials, and at least some strategists—not usually the more academic ones—are professional problem solvers, they are always in the market for answers. The revolution in military affairs (RMA) project has suffered from providing very expensive answers to an unknown question, at least to a question that was hugely underexamined. But now, with COIN and the irregular challenge, the defense community again has a challenge it believes it can get its teeth into. The problem is that some challenges are much more taxing than others. To excel at COIN, for

Americans, is infinitely more difficult than to excel at regular conventional warfare. However, the American is an optimistic public culture, and its military cultures have a host of all but genetically programmed “can-do” agents, so COIN is the flavor of the decade. I might add the ancient reminder that “to the person who doesn’t have to do it, nothing is impossible.” COIN is an activity toward which the American public, strategic, and military cultures have been, and I suspect remain, deeply hostile. But it is not the American way to do things by halves. In Britain, we tend to use quarter measures when half measures are called for. In the United States, the error lies in the opposite direction. In the troubling words of that distinguished American political scientist, Samuel P. Huntington of Harvard, writing in the Weinberger-Powell era of the mid-1980s: “The United States is a big country, and we should fight wars in a big way. One of our great advantages is our mass; we should not hesitate to use it. . . . Bigness, not brains, is our advantage, and we should exploit it. If we have to intervene, we should intervene with overwhelming force.”⁷

This just goes to show that a chair at Harvard carries no guarantee of wisdom, or does it? Huntington reflected the ethos of the mid-1980s, but also—the reason I quote him—he does suggest a reason why the United States has had a hard time with COIN. When policy demands effectiveness in COIN, the government—the military in particular, naturally—blows dust off its ancient manuals if it can find them; unearths “classic writings” by Charles E. Callwell, the US Marine Corps, David Galula, Robert Taber, Mao Tse-tung, Robert Trinquier, Frank Kitson, and T. E. Lawrence; and rediscovers what previous generations knew, even if they didn’t always practice it well.⁸ Of course, the contexts have changed, and every work of theory, founded on the experience of the life and times of its author, is stuffed full of inappropriate as well as much good advice. No matter, when COIN—or whatever is the challenge of the hour—is king, whatever is to hand is rushed to the front to serve. Every piece of fashionable jargon, every execrable acronym, every dodgy idea is hijacked for the bandwagon. The bandwagon now is COIN. To cite but a few of the lightweight notions that are pretending to be heavy metal: so-called fourth-generation warfare, network-centric warfare, effects-based operations, culture, and a totally integrated approach. The defense community has made the remarkable discovery that what in Britain we call grand strategy—in the United States, national security strategy—is a good idea. It always was. In point of fact, I thought that the whole aim of having a

National Security Council structure was to enable a grand strategy, but perhaps the distribution of power in Washington is too exquisitely diffuse to permit that. Dare I call it another “mission impossible”?

What I am suggesting, admittedly rather ungenerously, is that when we confront a truly difficult challenge, one that American cultural programming is not well prepared to meet, we look for the “silver bullet,” the big comprehensive solution. So today we learn, again, how to do COIN; we discover the virtues of cultural understanding; we rediscover that war and warfare is about politics; and we grasp the necessity for an integrated approach, otherwise long known as grand strategy. It would seem that in desperation we are liable to believe many extravagant promises. Why? Because we want to believe that there are solutions or, better still, that there is a single, dominant solution.

I apologize for opening in so censorious a manner. That was not really my intention. But sometimes the armchair strategist has to go where his brain commands, for good or ill. To close this initial broadside on a slightly upbeat note, I will say that what matters most, indeed what should be adopted as a principle, is to “get the big things right enough because the small errors eventually can be fixed.” Rephrased, pursue the path of minimum regrets. May our mistakes be modest and correctible.

What of the plan of attack here? The body of the discussion—yes, we will get to it, in fact we nearly have—is organized to pose and answer four central questions:

1. What is the nature of irregular warfare, and how does it differ from regular warfare?
2. Why do regular forces have great difficulty waging irregular warfare effectively?
3. Is COIN winnable by regulars?
4. What are the leading fashionable errors about irregular warfare?

This agenda should suffice to stir the needful opinion, expertise, and prejudice.

What Is the Nature of Irregular Warfare, and How Does It Differ from Regular Warfare?

Irregular warfare does not have a distinctive nature. Warfare is warfare, and war is war, period. But it does have an often sharply distinctive

character. In fact, irregular warfare can take a wide variety of forms and be practiced in different modes, even within the same conflict. We are in the challenging realm of what the Chinese call “unrestricted warfare”: in principle, anything goes, anything that might work.⁹ After all, that is the very essence of strategy. In the timeless and well-quoted words of Bernard Brodie, “Strategic thinking, or ‘theory’ if one prefers, is nothing if not pragmatic. Strategy is a ‘how to do it’ study, a guide to accomplishing something and doing it efficiently. As in many other branches of politics, the question that matters in strategy is: Will the idea work?”¹⁰

There is no need for us to devote attention to the nature of war; that vital task has been performed more than adequately by Carl von Clausewitz. And since all war has the same nature, it matters not whether it is regular or irregular. You will find scholars and others who try to persuade you that war is changing its nature as its many contexts alter, and especially that irregular war has a nature quite unique to itself. It is nonsense. There are no regular or irregular wars. There are only wars. In search of advantage or, as often, to avoid disadvantage, warfare may be waged by methods that contemporary norms regard as irregular. That really is a matter of detail, albeit important detail. I am highlighting a distinction that is not always well understood between *war* and *warfare*. As often as not, the terms are employed synonymously, usually in ignorance of their crucial difference in meaning. A security community will embark upon a war for the purpose stated by Clausewitz on the first page of his masterwork, *On War*: “*War is thus an act of force to compel our enemy to do our will*” (emphasis in original).¹¹ That is it. One does not set out to wage a regular or an irregular war. Rather, the mode, or more likely the mix of modes, is dictated by strategic circumstances.

There is no need to explore the nature of irregular war because it is identical to the general nature of war. A true glory of the three preeminent classics of strategic thought—Clausewitz’s *On War*, Sun Tzu’s *Art of War*, and Thucydides’ *Peloponnesian War*—is that they tell us all that we need to know about war’s unchanging nature.¹² Read properly, they explain the nature of all war in all periods, among all belligerents, employing all weapons, and deploying an endless array of declared motives. This may sound pedantic; I hope it just sounds obvious. I emphasize the authority of Clausewitz, and particularly his insistence that “all wars are things of the same nature,” in order to help demystify this rather amorphous beast, “irregular war.”¹³

Not only is it an error to reify irregular war, which after all is only a method, as a distinctive phenomenon, it can also be a serious mistake to divide the realm of warfare neatly into the regular and the irregular. Many wars are neither purely regular nor purely irregular. In fact, if one side adheres strictly to the irregular code, it is all but certain to be defeated. Irregular forces do not win unless they can translate their irregular gains into the kind of advantage that yields them military, strategic, and ultimately political effect against their regular enemy. Unless the state loses its nerve and collapses politically, the initially irregular belligerent can only win if it is able to generate regular military strength. Let us pause to summarize a few important points.

1. War is war, and warfare is warfare. Clausewitzian theory is rich but austere. He gives us his remarkable trinity of “primordial violence, hatred, and enmity”; “chance and probability”; and “reason”; his identification of war’s “climate”—“danger, exertion, uncertainty, and chance”; the insistence that war must be a political instrument; and his reminder of the ubiquitous role of “friction.”¹⁴
2. There are no irregular wars obedient to some distinctive nature of their own.
3. Many, perhaps most, wars are characterized by belligerents resorting to a range of combat modes on the regular-irregular spectrum.
4. Because generally they are the legal instruments of legal entities (i.e., states), regular armed forces typically think in terms of a neatly binary context of peace or war. This can be unhelpful. Belligerents in irregular mode are wont to hover, to move back and forth perhaps, between peace and war. Indeed, recalling the late and unlamented Soviet Union, there are ideologies whose agents must always be at war with prescribed enemies, though the war will rarely involve active violence.
5. Finally, whether or not they recognize the fact, all belligerents function grand strategically. We should not be overimpressed by the recent rediscovery of the strategic wheel in this regard. The fact that there is more to war than warfare, or fighting, was as well known to Alexander the Great as it should be to us.¹⁵ The apparent recent strategic epiphany that has revealed to us the true breadth of behaviors

relevant to the conduct of irregular warfare is, frankly, recognition of the blindingly obvious.

Since there is no case for asserting, or fearing, that irregular warfare comprises anything other than the standard set of ingredients present in all warfare, albeit distinctively mixed, just what is it that we are analyzing?

There are two rough but ready ways to distinguish regular from irregular warfare. The first is by the character of the combatants. Writing a century ago, Colonel Callwell of the British army employed the contemporary term of art, “small war.” He defined it thus: “Practically it may be said to include all campaigns other than those where both the opposing sides consist of regular troops.”¹⁶ In other words, a small war is waged between state and nonstate adversaries. The legal and political status of the belligerents defines the irregularity. The second approach, in contrast, focuses upon modes of operation. Irregular warfare is waged by such irregular methods as guerilla warfare preponderantly, probably with precursor and then adjunct terrorism. Scholars of strategic arcana like to debate their conceptual choices. Sometimes these matter. Is our subject insurgency, or is it irregular warfare?¹⁷ The latter risks diverting us unduly into a military box canyon at the expense of shortchanging the implications of the eternal truth that there is more to war than warfare. Indeed, in some parts of this world even referring to war and warfare can mislead by suggesting the possibility of their opposites, peace and stabilization. A territory may be locked in a condition of permanent war *and* peace. That is conceptually—as well as politically, legally, and socially—confusing to tidy-minded academics and drafters of doctrine manuals.

It is undeniable that in some important ways insurgency is a more satisfactory concept than is irregular warfare. It refers to a purpose, typically to take power by means of a tolerably, certainly variably, popular campaign of violence to destabilize and ultimately defeat the established government. However, I am reluctant to surrender the irregular label completely to so definite a political mission. For me, at least, the attractions of the broad church of irregular warfare include its ability to welcome regulars behaving irregularly. I must confess to some unhappiness with definitions that err on the side of exclusivity. Probably it is sensible to decline to choose. Instead, we should not waste effort on the merits and demerits of insurgency and irregularity. The former is obviously politically superior, but the latter all but compels us to think innovatively and, dare I say it again, in an “unrestricted” way.

Let us cut to the chase. I will identify those characteristics of irregular warfare that we may elect to regard as the eternal nature of the genre. Please recall that I am appearing to violate my earlier Clausewitzian argument to the effect that all war has the same nature. It is helpful, actually it is essential for our limited purpose here, to locate those features most characteristic of what we mean by irregular warfare. Only by proceeding thus can we enter the lists to do intellectual and practical combat with the beliefs and practices of the seriously misinformed.

Irregular warfare can have no fixed character; its irregularity is determined by specific historical and cultural circumstances. In common with the Chinese *ch'i* and *cheng*, unorthodox and orthodox, Liddell Hart's indirect as opposed to direct approach,¹⁸ and symmetrical contrasted with asymmetrical warfare, irregularity is defined by its opposite. This is not terribly helpful. It tells us that irregular warfare is not regular warfare. But what is regular warfare? And to whom? To a strategic culture that favors raiding, presumably a strategy of open warfare would be irregular. Theorists can pass many a happy hour trying to define the indefinable. The truth is that *irregular*, *indirect*, and *asymmetrical* are all inherently empty concepts, definable only with reference to their opposites. And those opposites, similarly, are bereft of definite meaning. But let us not despair. When faced with a theoretical conundrum such as this, one is obliged to resort to that old reliable, common sense. It so happens that we do have a good enough working understanding of irregular warfare, one which grants the distinctiveness of each case. If we itemize irregular warfare's principal features, leaving subtleties aside for the moment, we should be close enough to finding the answer to this first question. What is distinctive about irregular warfare?

1. Irregular warfare is warfare waged in a style, or styles, that are non-standard for the regular forces at issue. The enemy is unlikely to be in the service of a state.
2. Irregular warfare is waged in order to secure the acquiescence, if not the support, of the local people. Military defeat of the irregular enemy is desirable, but not essential. It is his political defeat, his delegitimation, that is crucial.
3. The decisive combat occurs in and about the minds of civilians, not on the battlefield. Protection of the people must be job one.

4. Intelligence rules! But actionable, which is to say real-time, intelligence is attainable only from defectors or a sympathetic public. And for such information to be available, its agents must believe that you are the winning side. Prudence dictates such caution.
5. Irregular warfare, as contrasted with common banditry, crime, or recreational brigandry and hooliganism, needs an ideology. At least, it needs some facsimile of a big idea or two. Ideas and culture usually do matter in warfare. But for an insurgency to mobilize and grow, it has to have a source of spiritual and/or political inspiration. When combating an irregular enemy, one cannot help being in competition with that big idea. There is an unhelpful asymmetry in the structure of the context. The insurgent is bidding with promises; you are counter-bidding with what must be a somewhat flawed performance. And bear in mind that the irregular foe will be striving with imagination and perhaps some competence to make your claims for better governance look like lies.
6. Of course, all warfare is about politics. It is only the political dimension that gives meaning to the bloody activity. But, in regular warfare, at least for the soldiers, politics typically takes a backseat until the military issue is settled. Not so in irregular warfare. In the latter case there will probably be no recognizable military decision. Military behavior must be conducted for its political effects because those effects, in the minds of the public, comprise the true field of decision.
7. Culture matters greatly. This is yet another claim that is not unique to irregular warfare, but it is of greater significance in that mode of conflict. Since irregular warfare is above all else a contest for the acquiescence and allegiance of civilian locals, their beliefs, values, expectations, and preferred behaviors are authoritative. If we do not know much about those beliefs and values, we are unlikely to register much progress in persuasion, except by accident. Indeed, by behaving like strangers in a strange land—true aliens—our regular soldiers and officials are as likely to do more harm than good to their mission. Always be alert to the malign workings of the law of unintended consequences. You might wish to marry that law to the maxim that “no good deed shall go unpunished.”
8. Finally, regular warfare the American way has the highly desirable characteristics of offensiveness, aggressiveness, seizing and keeping

the initiative, and maintaining a high tempo of operations. The object is to defeat, indeed annihilate, the enemy in short order by a combination of maneuver and firepower. The idea that time is a weapon is somewhat alien—certainly it is unwelcome. But in irregular warfare, an enemy who is greatly disadvantaged materially is obliged to use time against you. He expects to win by not losing because he believes that he can outlast you. The war will not be won or lost in the local barrios and swamps, but in America's sitting rooms. The irregular is not attempting to inflict an impossible military defeat upon you. Steve Metz points to the meaning of strategic effectiveness in irregular warfare when he writes that “insurgency, after all, is armed theater.”¹⁹ All competent strategists of irregular warfare recognize this fact. Their regular opponents, time after time, have resisted such comprehension. Michael Collins orchestrated his Irish Republican Army campaign against Britain in 1919–21 in obedience to this principle, as did Võ Nguyen Giap. Needless to say, perhaps, if an irregular force enjoys military success, its leaders are always vulnerable to the temptation to change the rules. They may seek to accelerate the pace of history by going directly for political gold by means of a swift military victory. As often as not, such hubris brings them close to military and political nemesis.

It is necessary to highlight the differences between regular and irregular warfare. But I must confess to considerable unease with such a neat and convenient binary distinction. There is an Oriental strategic theorist lurking somewhere within me, and that elusive person favors a both/and approach rather than an either/or one. When the American defense community makes a great discovery, in this case the phenomenon of irregular warfare, it tends to overdiscovery. By and large, the long-belated rediscovery of what has really always been known about irregular warfare and insurgency is very welcome. However, to cite yet another law, diminishing returns to effort rapidly set in. I would be less troubled were I seeing a more holistic approach to strategy and warfare than I notice today. I suspect both that the COIN enthusiasm will not long endure, but that while it does we will overreach and overreact. This is one reason why I have tried to argue that our subject is war and warfare and that they have a permanent nature. As I shall explain, I believe that the current commendable drive for greater effectiveness in COIN is going to promote new strategic errors.

Why Do Regular Forces Have Great Difficulty Waging Irregular Warfare Effectively?

If it is any consolation, you should be aware that very few armies have been equally competent in the conduct of regular and irregular warfare. The principal reason is glaringly obvious. Armies generally are organized, equipped, and trained to fight other armies with characteristics similar to theirs. In regular warfare one seeks victory through the decisive defeat of the enemies' forces on the battlefield. Although the enterprise is thoroughly political in motivation and meaning, the proximate behavior is, and has to be, military. An army commander may contribute to a dialog on strategy with his political masters, but corporals, sergeants, captains, colonels, and even one- and two-star generals will not.²⁰ They will be fully occupied fighting the war. The problem is that in irregular warfare there is an armed enemy in the theater, but his military defeat or humiliation is not the prime objective of the COIN effort. This is not to say that such defeat is unimportant, a vital matter to which I shall return.

The primary COIN challenge is strategic. This is perhaps unfortunate because truly it can be said that the United States does not really do strategy. Rather, it tends to jump straight from policy to operations and tactics.²¹ The dominant approach to strategy that one finds in American strategic culture is more than casually reminiscent of the view of the most admired soldier of the second half of the nineteenth century—Robert E. Lee always excepted, of course—Field Marshal Helmuth Graf von Moltke. The field marshal declared in 1871 that “strategy appropriates the success of every engagement and builds upon it. The demands of strategy grow silent in the face of a tactical victory and adapt themselves to the newly created situation. Strategy is a system of expedients.”²² We know how that approach fared under fire. To lose two world wars in 27 years was quite a strategic achievement.

In regular warfare, the soldiers know how to win, and the generals understand the task that they must set the troops to. COIN is different. The familiar connection between tactical, even operational, military excellence and strategic success is either absent or tenuous. You win a military engagement by standard metrics, but so what? Can insurgents be beaten militarily? If they cannot, just how can they be defeated? If COIN is all about political effect, what kind of military and other behaviours generate, or undermine, that political effect? These are not exactly new questions. It is not even true to claim that COIN today confronts new forms of insurgency. Strategic history has been here before. Contexts certainly

change. As Edward N. Luttwak reminds us, the option of out-terrorizing terrorists and encouraging social discipline through the generation of serious fear is not open to us as it was to General Vespasian when he elected to teach the revolting Jews in AD 67 why it was not a good idea to revolt against Rome.²³ Changing norms—a globalized technology of news and opinion reporting—have altered crucially the contexts of warfare, especially COIN warfare. Regular forces are still trying to come to grips with the media dimension to their behavior.

The chief difficulty for regulars is to decide upon a strategy that might work. Military operations and tactics are far from irrelevant, but they are not the keys to success. It is worth noting, however, that they can prove to be the keys to political failure. Recall Dien Bien Phu and, potentially, Khe Sanh. The regular has to change his mind-set and adopt a view of military activity that has it integral to a holistic approach to a problem that is largely, though not entirely, political. Since soldiers have fighting as their most distinctive core competency, and given that they are best prepared to wrestle with other regular soldiers, the military cultural challenge is profound. Rephrased, typically when a regular force is committed to COIN, although it has some inherent advantages, it is being asked to perform in ways, and for purposes, for which it is relatively ill prepared. If proof of this claim is required, just consider Iraq. Often it is said that it is more difficult to expel an old idea than to introduce a new one. Because we only have one army, we cannot afford to deprogram our regulars, even were such mental surgery possible. After all, we may well need them to perform in a regular way, even in pursuit of COIN success. I might mention that I have always believed that the first requirement for special operations forces (SOF), “fit for purpose” as the saying goes today, is an unconventional mind-set.²⁴ Unless SOF are employed by people who can think unconventionally, and unless they themselves have unconventional minds, they must perform far short of their potential. As always, the problem is strategic. What effect is it necessary to generate, and how is that to be done? It is always essential to be able to answer the most critical question posed by strategy, so what—what difference does it make?

Not all military institutions have equal difficulty with COIN. Public, strategic, and military cultures differ among countries. For example, the waging of warfare against irregulars of all persuasions and in most kinds of terrain has long been a core, if not the core, competency of the British army. Very occasionally, though relatively briefly, that army would change its game

dramatically when continental demands had to be met. But the British army was organized as an imperial police force. It was transported by the navy on expeditions of conquest. Then it policed the empire, providing aid to the civil power. And finally it conducted a lengthy, and not wholly unsuccessful, imperial retreat, serving as the rearguard for the long process of devolution after 1945. One could argue that the British army was still engaged in imperial policing in Northern Ireland until the Good Friday Agreement of 1998. We need to beware of casual generalization. The question I pose is, I believe, valid and important: why do regular forces have great difficulty waging irregular warfare effectively? The scale of the difficulty varies with the subject. The British army has a long tradition of performance in irregular warfare. It has not always covered itself with glory in COIN campaigns. However, British military culture has no basic difficulty with such warfare. It is what the army expects to be asked to do. And historically, irregular warfare has been the preponderant British military experience.

The United States and its Army is another case altogether. Despite 300 years of irregular warfare in North America against Native Americans, American military culture never designated irregular warfare, or COIN, as a required core competency, at least not until today, rather belatedly. This is not the occasion to explain why this has been so. I simply record it as a historical fact. The United States has a preferred way in warfare of long standing that is, on balance, highly dysfunctional for COIN. More and more American analysts have come to recognize this, but recognition and effective response are rather different. Even as the US Army and Air Force appreciate the differences between regular and irregular warfare insofar as they bear upon their behaviors, it remains an open question whether or not American culture and institutions are able to make the adjustments necessary for much greater effectiveness in COIN.

At some risk of overstatement, I will hazard the proposition that almost everything that is regarded near universally as “best practice” in COIN contradicts the American way in warfare.²⁵ To excel in COIN an army needs to:

1. Understand that all military action is political theater. Irregular warfare does not, cannot, have a military outcome.
2. Appreciate that the conflict is for the acquiescence or support of the people. Dead insurgents are a bonus; they are not a reliable mark of success.

3. Be prepared to tear up its doctrine manuals for regular warfare. Its first job is to protect the people.
4. Adopt different priorities among its skills. Being highly agile in maneuver and lethal in firepower are not especially helpful. Can it be that our military transformation was, or is, heading in a direction irrelevant, or actually harmful, for effectiveness in COIN?
5. Accept that COIN requires a long-term commitment, typically 10 years. Also, it requires security forces in large numbers. Historical analysis seems to show that one needs roughly 20 members of the security forces for every 1,000 people in the general population.²⁶ Tactical skill and technology are not very relevant. They are nice to have, but the basis of success is numbers in the right ratio.

If your armed forces are shaped by and wedded to a military culture of rapid maneuver for decisive victory, if they seek to exploit firepower as the longest of friendly long suits, and if they draw a sharp distinction between the political and the military realms, COIN will be the source of endless frustration. Not only is an army excellent in the conduct of regular warfare unlikely to shine at COIN, that excellence will also prove a hindrance to understanding and responding to the different challenges posed by a context of irregular hostilities. The picture looks grim, perhaps unduly so. Are there grounds to hope for success in COIN?

Is COIN Winnable by Regulars?

The answer to this question is a resounding yes. I say this not just as an affirmation of faith but also on the basis of historical evidence. Insurgencies have a distinctly uneven record of strategic and political success. We theorists tend to be overimpressed with structural factors. We happily list reasons for and against the prospects for COIN advantage. But we are notoriously weak at dealing with the human dimension of COIN. Similarly, we are not as eloquent as we should be on the subjects of Clausewitz's "climate of war" and friction. People matter most, not least in relatively low-technology hostilities. Leaders count. Political charisma and strategic inspiration are priceless assets. In warfare of all kinds, regular and irregular, morale is by far the most important generator of effectiveness. In a protracted irregular conflict, the morale of the rival armed forces can be literally decisive. The skillful leader works to depress the morale of the enemy's spear carriers.

On the obverse side of inspired leadership, it is important to allow analytical space for human error. It is always a mistake to discount folly, incompetence, and sheer bad luck. Many campaigns that should have been won were, in fact, lost because the troops were poorly led. Every war, regular and irregular, is a duel, as Clausewitz maintains. It is also a struggle between two or more learning institutions.²⁷ Everyone makes mistakes in war. Not all mistakes are fatal, but the course of events is shaped, even determined, by which side learns the fastest and adapts more quickly.

While an army must discard most of its doctrine for regular warfare in order to be effective in COIN, it must not try to discard the essential facts of its regularity. It is the army of the established order. It provides aid to the civil power. It has all the material advantages of official sanction and resources. It has legitimacy; at least it should have legitimacy. While a COIN campaign requires a regular army to reorganize, retrain, and reequip, it does not require, it cannot require, the regulars to ape the irregulars. The regular army and its adjuncts are the face of order and stability. It needs to look and behave as if that is so. What do we know from historical experience, from logic, and from common sense about the prospects for success by regular forces in COIN?

First, although every insurgency is unique, each has some features common to them all. This convenient fact means that a COIN doctrine is both feasible and necessary.²⁸ We know what constitutes best practice in COIN, if only because we have access to an abundance of evidence of the consequences of poor practice. The beginning of COIN wisdom is to grasp the implications of Clausewitz's famous rule. He insisted that "the first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish by that test [of fit with policy] the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature. This is the first of all strategic questions and the most comprehensive."²⁹ We know that COIN is a contest for the minds of the people. To that end, we know that the military instrument has to be subordinate to civilian authority and in the background behind the police. Also, we know that the use of force should be minimal. The entire COIN effort requires coordinated central civilian direction. There is no need to dwell on these familiar details. The point is that there is nothing whatsoever mysterious about best practice in COIN, at least in principle. We have a glittering array of variably outstanding classic texts and an even more glittering array of historical

episodes of both failure and success in COIN. The charge today is not to comprehend the COIN challenge. That is easy. Rather, it is to persuade our institutions to change their preferred behaviors while being alert to the possibility that institutional, strategic, and public cultures may not permit the necessary adjustments.

Second, COIN can and does succeed if the contexts of the conflict are permissive. For example, COIN was always much more likely to be successful in the Philippines, Malaya, and El Salvador than in Vietnam, Afghanistan, and Iraq. Not all tasks are doable, even to a gifted strategist. Iraq today bears all the hallmarks of mission improbable. Following our initial errors, the security situation has deteriorated, probably beyond rescue. The conflict is now so complex it even makes World War II Yugoslavia look simple by comparison, and that is quite an achievement. The strategist should be a pragmatist. Whether the prospective conflict is regular, irregular, or a messy, untidy combination of the two, it may not be winnable at bearable cost. Strategy is about making hard choices based upon cost-benefit guesswork. Even a sound, well-tested COIN doctrine, to be implemented by a suitably coordinated civil-military effort, may stand no reasonable chance of succeeding. Situational awareness is key. Do not assume that COIN is always doable. A host of showstoppers can rain on the parade.

Third and lastly, for COIN to succeed abroad it has to work politically for us at home. If the American (and British) public loses patience or confidence in the endeavor, the exercise is doomed. This point is so obvious as to verge on the banal. When I raised it in a speech a year ago, I was not popular. I predicted a surge of bumper stickers saying “No more Iraqs.” The audience was not impressed at that time. If the United States believes that it faces a generation and more of irregular challenges, it is going to have to address this potentially fatal weakness in its staying power. Irregular warfare is protracted and apparently indecisive. It is difficult to understand in detail, its course is hard to describe, evidence of progress is elusive, and its future is almost impossible to predict. If Americans cannot accept these structural facts, the country cannot succeed at COIN.

What Are the Leading Fashionable Errors Believed about Irregular Warfare?

If you like maxims, try this one: “For every complex problem there is a simple solution, and it is always wrong.” It is noticeable that the current

understandable flurry of theory and advice on irregular warfare has encouraged the promotion of a number of just such simple solutions. I must preface my negative comments by saying that the ideas I will cite are all excellent in themselves. What I shall criticize is the view that any of them is the answer for which we have been searching. I must risk exaggeration in order to highlight the argument that an inherently good idea rapidly becomes a much less good idea when its limitations are not appreciated. The four simple ideas that currently are being invested with miraculous properties for the successful prosecution of irregular warfare are culture, COIN doctrine, the use of SOF, and the dominance of political over military behavior.

First, the US defense community has discovered culture. With all the enthusiasm of the convert, our military is being encouraged to believe that understanding local culture is the key to victory.³⁰ We must comprehend the people and the society that we aspire to rescue from chaos and capture by dangerous creeds. This is an excellent idea, as it always has been. The main problem is that it is not achievable. Some cultural empathy certainly is attainable. But to acquire anything more than a superficial grasp of local mores and social structure demands years, if not a lifetime, of exposure and study. Our practice of tours of duty with rapid rotation is incompatible with the acquisition of cultural expertise. Still, there is everything to be said in favor of our doing what we can to understand the people whose minds comprise the battlespace in irregular warfare.³¹ I should add that even if a handful of American anthropologists and historians do secure a good measure of cultural expertise, what do we do with it? Recall the strategist's question, so what? So, now the US defense establishment knows that culture is important. Good. But what can it do with that general knowledge that would be really useful?

Second, as problem solvers our officials and soldiers are always in the market for solutions to the question of the day. Andrew F. Krepinevich spoke to this market and told many people what they were desperate to hear when, in 2005, he offered drink to the thirsty and food to the hungry with his timely article, "How to Win in Iraq."³² What Krepinevich provided was a first-rate summary, and application to Iraq, of standard COIN theory. He explained best practice in COIN as revealed by historical experience. Obviously, this unexceptional essay came as a revelation to many Americans who somehow had missed the COIN lectures in their professional education. It would not be fair to compare Krepinevich with Gen Robert Nivelle, the French general who promised desperate and

despairing politicians victory “at a stroke” on the western front in 1917. Among other differences, Krepinevich was recommending a sound doctrine. But Krepinevich, Nivelles, and more recently, the advocates of a military “surge” in Baghdad do share one important common feature. They are all people who claim to have the answer to the problem of the hour. “How to Win in Iraq” and similar, if less competent offerings, are quintessentially Jominian. If you recall, Antoine Henri de Jomini, the Swiss theorist, promised victory to those who applied the correct doctrine.³³ The idea has taken root that the solution to our irregular warfare nightmares is adoption of the right COIN doctrine. This is a half-truth at best. In historical practice, each case is so unique that although there are some valid principles which should govern irregular warfare, there can be no reliable template for all contexts.

Third, at long last SOF have become fashionable and, dare I say, popular. In and of itself, a new appreciation for SOF is entirely welcome. But what do we expect of our SOF? What are their roles in irregular warfare? Are they key to success in COIN? The answer is not really, except in the context of the total protracted civil-military effort that COIN requires. SOF can only be as effective as circumstances allow and as the chain of command permits. In particular, in COIN they either play with the team or their unique talents are largely wasted. If the wrong strategy is pursued, SOF will not rescue the enterprise. There is always the danger that a regular military establishment deeply encultured in conventional maneuver warfare, and wedded indissolubly to firepower solutions, will use its SOF assets to do better what it already does well. Specifically, SOF will be employed as target spotters for stand-off weaponry. Recall that in 2001–2 an allegedly new American way of war, vitally enabled by SOF target spotting, was proclaimed and celebrated as the experience in Afghanistan.³⁴ So little careful thought has been devoted to the strategic effectiveness of SOF in different roles that it is easy to see why exaggerated estimates of their potential are not hard to come by. We lack persuasive theory on SOF. In fact, the genuinely strategic literature on SOF and special operations is almost entirely absent. I commend James Kiras’s excellent recent book to you.³⁵ It is a lonely item on an otherwise empty shelf. Some may also find value, inspiration at least, in Derek Leebaert’s recent work.³⁶ Although most of those who have latched onto SOF as the principal answer to our COIN troubles are not wholly in error, they really do not know what they

are talking about. There is, and can be, no SOF solution. SOF are a vital part of the solution, where a solution is possible, that is.

Fourth and finally, the defense establishment appears to be in the process of overreaching with the dazzling insight that the military dimension is subordinate to the political in irregular warfare. Yet again, this is a powerful and correct insight. But when taken too far, when reduced to an article of faith, it becomes a dangerous error. Of course, insurgents of all noxious breeds cannot win militarily, at least not unless the COIN forces commit truly appalling strategic mistakes. However, COIN in all its nonmilitary dimensions can only flourish in a context of physical security for the public. The traditional American way in warfare is highly dysfunctional for COIN, as I have suggested already and as is generally recognized today. However, we need to be careful lest we overbalance away from according the military dimension its proper due. It is important—actually it is essential—for the public to see the COIN regulars succeed in battle. They have to believe that the insurgents are being, and will continue to be, defeated. Naturally, one must not pursue narrowly military objectives regardless of the political costs of so doing. But I detect signs today of an undue willingness to demote and discount the military element. Without physical security for the people, a COIN campaign is going nowhere useful, no matter how sophisticated its doctrine or well coordinated its centrally civilian-directed efforts.

To summarize the argument just advanced: beware of the great oversimplifications. Look out for the falsely promised silver bullets. Caveat emptor. I have suggested that culture, COIN doctrine, SOF, and the paramountcy of the political have all been adopted as iconic solutions to the hideously complex challenges of COIN. While each is valuable, none is *the* answer.

Concluding Thoughts

I close with half a dozen thoughts that are as spare and direct as much of the preceding discussion has been rather indirect and sometimes hedged with typical academic qualifiers. These concluding points are a mixture of the obvious and the controversial.

1. Irregular warfare is highly variable in form and is always complex.
2. Irregular warfare calls for cultural, political, and military qualities that are not among the traditional strengths of Americans. America excels

in the conduct of large-scale regular warfare. Moreover, airpower is the essence of the American way in warfare.

3. We need to beware of drawing too sharp a distinction between regular and irregular warfare. Most wars have elements of both. And warfare is warfare, whether it is regular or irregular.
4. Few armies excel at both regular and irregular warfare. America's irregular warfare deficit is historically common among states. It is not at all extraordinary.
5. Irregular warfare matters, but it matters a great deal less than would, or will, the return of great-power rivalry and antagonism. We have to be careful lest we overreact to the menace of the decade—irregular warfare—only to discover that the COIN challenge was a distraction from more serious security international business.
6. It follows from these concluding thoughts, and from the argument in much of this paper, that the United States should undertake little irregular warfare. It would be a political and strategic mistake to identify irregular warfare, COIN especially, as America's dominant strategic future. If the country should make the mistake of committing itself to extensive COIN projects, it will require a much larger army. Technology will not substitute anywhere near adequately for numbers of Americans on the ground. 

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Exploring the Knowledge Nexus

India's Path in Terrorism-Driven Institutional Growth

Chris C. Demchak
Eric Werner

Introduction

The search for knowledge and certainty drives the evolution of large-scale institutions in modern societies.¹ These organizations, in turn, alter and solidify the structural and political landscape of society through their search for effectiveness by expanding or competing for control of their environments. In stable democracies, this accumulated organizational landscape evolves either to manage acceptably enough or to ignore society-wide problems. Occasionally, challenges—like terrorism—emerge that defy traditional processes to cause significant uncertainties for large organizations. To reestablish preferred certainty levels, organizations reach beyond established boundaries and procedures to acquire more knowledge or control.²

For established institutions, threats must be considered dire indeed to stimulate a search for new knowledge. If undertaken, the search beyond normal institutional boundaries moves them into the *knowledge nexus*—the information-sharing terrain between communities that may or may not be in use. Generally, sharing information is not seen as beneficial, or needed information is fragmented beyond recognition or visibility across agencies. As information societies continue to evolve, much needed information has simply never been collected officially. This leaves a largely un-

On the faculty of the University of Arizona's School of Public Administration and Policy, Dr. Chris C. Demchak received her PhD from Berkeley in political science with a focus on organizational theory and complex technical systems, as well as two master's degrees in economic development (Princeton) and energy engineering (Berkeley). She has published numerous articles on societal information warfare (theory of action, BIK behavior-based privacy), security institutions (counterterrorism "knowledge nexus"), and new military models ("Atrium" model for joint forces), as well as the book *Military Organizations, Complex Machines* in the Cornell Security Studies series.

Currently a graduate student in international affairs at American University, Eric Werner graduated from the University of Arizona in December 2006. An honors student in political science and Near Eastern studies and a recipient of the Department of Political Science's "Most Outstanding Student Award" as well as the University of Arizona's Murray DeArmond Mind, Body, and Spirit Award, he has participated in several research projects involving homeland security analysis, governance security, and responses to terrorism.

explored arena beyond normal institutional boundaries where potentially vital information may reside.

For security organizations the counterterrorism (CT) knowledge nexus has been largely vacant up to now. War, or an equivalent national-level threat, is usually necessary to motivate national-level institutions to share internal knowledge with each other or with their domestic colleagues. Military preparations for war have often involved reaching out to create new institutions and infrastructure just to reduce uncertainties in foreseeable conflicts.³ Even in war and within the same military community, however, such developments are not easy or automatic. Battle histories resonate with stories of military units refusing to cooperate with others, especially if cooperation seems to confer advantages on competing services.⁴ This impetus for turf protection is as true for police departments⁵ and national agencies⁶ as it is for militaries.⁷

Until 2001, domestic terrorism was not widely viewed as a national-level problem requiring military or national foreign intelligence assistance. Most Western nations characterized terrorism on homeland soil as a criminal activity and thus assigned responsibility for countering terrorism to domestic police services.⁸ In recent decades, terrorism has waxed and waned in stressing police capabilities, only solidly becoming of national security concern in the United States after the attacks in 2001.⁹ With little political pressure to do otherwise, national-level military and intelligence agencies did not seek to be involved, other than peripherally, in police matters. Similarly, insurgencies in Westernized nations have been rare as well and given to the military to handle.¹⁰ States have not institutionally viewed threats from insurgencies as comparable to those posed by domestic terrorism. Police or intelligence agency involvement has generally occurred under temporary, ad hoc arrangements rather than being integrated to the extent necessary to begin forming a CT knowledge nexus.¹¹

Since 2001, however, CT has unexpectedly developed the political potential to challenge established organizational boundary paradigms. Modern democracies have become intolerant of arbitrary or preventable death. Citizens have developed unprecedented expectations that public agencies will ensure their safety. These societies tend to be complex, interdependent, nonautarchic, dynamic, networked sociotechnical systems with members who are impatient with dangers perceived as avoidable. In particular, citizens increasingly have a strong sense of entitlement to be protected against the potential of an arbitrary mass casualty attack.¹²

Especially after the 2001 New York attack, the US government and global Westernized media vigorously and internationally framed foreigner-instigated domestic terrorism as a major national and domestic threat aimed at Westernized democracies. As a result of this framing, it has become widely accepted that the institutional solution requires relatively holistic cooperation across traditionally separate domains of national security services.¹³

Under political pressure to be seen as prepared and to obtain or retain international status with peer professional groups, police, military, and intelligence agencies across Western nations are now, at a minimum, discussing information acquisition, sharing, analysis, and distribution. This new “not quite national security but more than routine criminality” framing of terrorism challenges established operational distinctions between levels of police, domestic intelligence, and military contributions to homeland defense, eroding institutional boundaries across Westernized liberal democracies.¹⁴ In the process, these widely scattered efforts are beginning to fill the void with organizational and technical elements aimed at sharing information.

Such fervor in peacetime is highly unusual, and the process has gone largely unnoticed and uncharted externally. Consequently, we know very little about how the institutionalization of this knowledge nexus proceeds. Institutionalization of the CT knowledge nexus can provide enormous benefits, but a need for information and certainty among institutions often links them into large-scale technical systems (LTS) with unintended consequences.¹⁵ For example, in nations not yet experiencing terrorism, large institutions may simply have monthly meetings. Others, such as the United States, may create new organizations such as the Department of Homeland Security (DHS).

Effective CT in liberal democracies with strong civil control of security forces is taken to require public actions that are preemptive, rapid, and accurate. Inevitably, such actions involve the necessary and deliberate interruption of social activities and, potentially, the compromise of civil liberties for security purposes. Whatever those actions are, public law and expectations across democracies require that knowledge-driven operations be—or at least appear to be—narrowly targeted and popularly viewed as unbiased and legitimate. These exceptional demands on civil, intelligence, and military structures require extra care to understand the circumstances under which the knowledge nexus forms and the longer term nature and directions of its emergent structures.

This study is a first step in a longer range, wider focused, cross-national research agenda on the extent to which the search for knowledge across civilian, intelligence, and military counterterrorism organizations may be developing an unprecedented CT knowledge nexus. Using a grounded theory approach across a large number of media and other secondary sources, this essay documents the institutional beginnings of a CT-induced knowledge nexus in a natural experiment occurring in the large-scale federal democracy of India. It is a nation dealing with a considerable terrorism challenge and security institutions with exceptionally strong traditions of defending domain boundaries. The evidence accumulated from an exhaustive search of published reports suggests that redefining terrorism as a national problem has indeed weakened turf boundaries across these traditionally insular security communities in India.

To our surprise, however, the institutional kernel of this nexus did not emerge from the higher status national-level agencies in the military or intelligence communities, but rather from the more pedestrian state police forces. To an unexpected extent, the national-level communities—intelligence and military—have concretely supported the growth of state-level antiterrorism squads (ATS), even when the actual experience with terrorism is on the decline. We hypothesize that in India, prompted first by experience and then by internationally reinforced urgency, these ATSs have begun institutionalizing the CT knowledge nexus. In 2001, with institutionalization well underway, numbers of terrorism incidents began to decline across India, but the number of ATSs continued to increase for the next four years. The CT knowledge nexus is changing the topology of the Indian state by forging relatively resilient links across the organizational boundaries of local and national levels.

The idea of using small, formally organized squads of military or police forces to disrupt enemy organizations first emerged in Europe long before its arrival in India. In 1941, the United Kingdom created the Special Air Service (SAS) with the objective of going behind enemy lines to attack German troops and infrastructure in Africa. In the 1950s, the SAS was transformed from a special forces unit to a counterinsurgency (COIN) institution protecting British interests around the world. With this change in mission emphasis from conventional state military threats to those from nonstate organizations, the concept of an *antiterrorism squad* was born. The SAS ran COIN operations in Oman, Malaysia, Borneo, and Aden.¹⁶

In the 1970s, the experience of terrorism as more than a criminal or crazed activity prompted the creation of specialized response institutions and the evolution of others across several nations. The Israeli deep reconnaissance and intelligence teams of Sayeret Matkal were created in 1957 but evolved into counterterrorism in the 1970s based on the model of the British SAS. After the 1972 Munich massacre of Israeli Olympic athletes, the surprised and poorly prepared German police formally created GSG-9, Germany's first antiterrorism squad.¹⁷ It drew conceptually on the examples of the British SAS and Israeli Sayeret Matkal.¹⁸ Having a team specialized in CT became more internationally desirable after the 1976 successful Israeli Operation Thunderbolt that rescued 106 passengers at the Entebbe International Airport in Uganda.¹⁹ During the 1970s, Belgium, Italy, Australia, and the United States established ATSS in military units.²⁰

As an institutional adaptation to surprise in large-scale systems, the ATS evolutionary development in India falls upon a midpoint of a formalized CT knowledge nexus continuum marked by announcements of more or new joint discussions, exercises, or regularized briefings on the low end and full-scale, formal creation of new organizational structures across cities, states, and national agencies on the high end. As such, the Indian experience may provide more nuanced lessons about structuring responses to CT knowledge requirements under differing circumstances of frequency and consequence than the example of, say, the DHS in the United States. Thus, this work seeks to uncover the large-scale technical structures emerging in a wide variety of national contexts. The need for terrorism-related knowledge is beginning to ripple through government cyber operations with unknown consequences for institutional effectiveness, civil liberties, and civil-military relations.

Defining the Knowledge Nexus

A knowledge nexus evolves when organizational walls are breached to facilitate mutually beneficial information sharing among institutions. The definition of *knowledge* here is broad; it encompasses anything that reduces the unknowns associated with a contingency and that helps the recipient counter an uncertainty. Knowledge can be found in a spare part, a supplemental external training course, access to new databases, or seconded experts.²¹ The emergence of knowledge societies has led to an increasing emphasis on cyber methods of knowledge formation, stor-

age, transmission, and retrieval. However, unless organizations perceive a need to augment existing knowledge by developing external knowledge delivery networks, the nexus between institutions remains essentially unclaimed domain space. In principle, a nexus should only begin to take shape when an identifiable large-scale problem emerges and is widely recognized to impose knowledge demands beyond the existing capabilities of any single institution. To meet individual obligations, each institution will have to reach beyond its own strongly maintained boundaries to link with the other organizations in some process of knowledge exchange. Figure 1 models this process of institutional development.

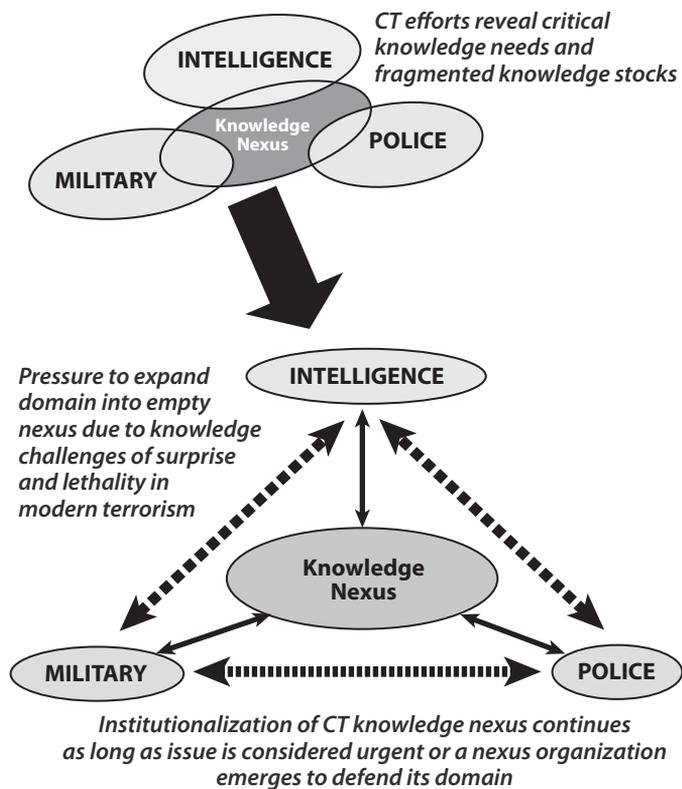


Figure 1. Knowledge nexus model of interinstitutional domain formalization. (Adapted from Chris C. Demchak and Eric Werner, “‘Knowledge Nexus’: Learning Security in the Information and Terrorism Age” (paper presentation, International Security Studies Section annual meeting, International Security Association, Tucson, AZ, 26–28 October 2006).

As data exchanges intensify and become more frequent over time, institutions change structures, dependency perceptions, and relationships. In the commercial world, it has been said that two large organizations

cannot sustain a joint venture unless everything is perceived to be shared evenly. If not, then one will absorb the other, or either the shared subsidiary or the joint venture will disband.²² In public institutions, however, the process is more gradual, with a slow formalization of routine interactions. One result may be an enlargement of one organization to absorb the resources associated with the problem—just as in the commercial world. A second consequence could be disengagement if the originating problem is resolved or decreases in importance. A third possibility is the development of a slowly institutionalizing shadow organization sustained by the shared practices and knowledge moving between two otherwise distinct agencies. This not-quite-formally-recognized knowledge nexus could function for years as organization members maintain personal and professional relationships even after the original problem dissipates. The knowledge nexus could conceivably become the source of entirely new institutions formed from the parent organizations by political leaders. A fourth possibility is the complete joining of the two organizations with the shadow organization serving as the intervening glue for the merger.

The knowledge nexus varies in its level of institutionalization according to the level of criticality by which the stimulating problem is socially constructed. War or its imminence is particularly powerful in forcing interconnections across organizations and communities. Historically the pursuit of war by political leaders has developed the institutions of the society. France under Louis XIV and Napoléon could be viewed as classic examples of the massive development of society's infrastructure and institutions as a function of the need during war for resources and logistics transcending the traditional bounds of the military's internal capabilities.²³ Figure 2 depicts the progression of institutionalization levels of the knowledge nexus. Furthermore, the more intrusive the threat and the more long-standing the uncertainty, the more likely the formerly temporary arrangements across organizations will formalize and remain over time.²⁴

Given the uniqueness of this issue for increasingly complex societies, it is unclear how institutionalization of the knowledge nexus might develop in any nation's CT effort, but the process is open for informed speculation and empirical discovery. When CT is taken so seriously that the turf walls around institutional data begin to buckle, the organizational and wider nexus development clearly become of interest to scholars and practitioners.²⁵ Over time, as Philip Selznick observed, if informal information-sharing relations become accepted, they begin to become part of the formal structures among those elements involved.²⁶

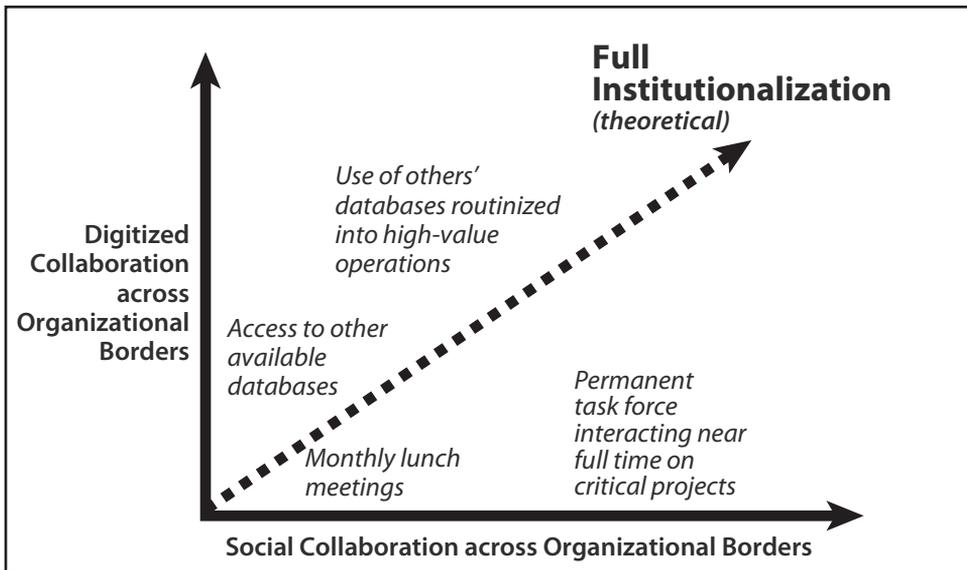


Figure 2. Range of social and digital institutionalization in the nexus. (Adapted from Demchak and Werner, “Knowledge Nexus.”)

The more compelling the fear of terrorism, the more one expects to find institutions mobilizing to find certainty-enhancing knowledge for future safety. This, in turn, formalizes reliance on the knowledge nexus. It is, however, critical to this larger societal process that terrorist events be framed as possibly recurring and national in implication for the nexus to coalesce into a large-scale cyber system with society-wide effects.

There is plenty of international discourse—some quite emotional—about the imminent threat of foreign-based terrorism since 2001. That year was really only a watershed for the United States, and yet the Bush administration’s framing of the “global war on terror” seems to have imprinted security discourses far beyond the US experience. Therefore, if a state shows either trivial terrorist experience or declining experience, and yet increases its institutionalization of a CT knowledge nexus, we infer that urgency has supplanted experience as a motivator for such development. The decline of concrete events suggests the US characterization of the global terrorist threat has resonated with a wide range of nations—even when those nations have not experienced a comparable threat from terrorism and yet are institutionalizing a knowledge nexus between police, military, and intelligence organizations. That police forces in particular—traditionally strongly locally focused—might respond to an international message of urgency underscores the potential power of the post-9/11 framing of CT and of the

unprecedented growth of communications infrastructure linking nations.²⁷ The process of emulating other professional developments is historically not common in most public service domains, especially across national borders. Most public agencies do not look to their colleagues in other nations, or even other provinces and states, for guidance on how to structure or operate themselves. This process, formally called *mimetic isomorphism*, is particularly unlikely when organizations have few competitive or policy connections already in place.²⁸ Such copying is more common in militaries, which often seek to mirror each other in hopes of averting operational or technological surprise.²⁹ The convergence of ideas leading to institutional change can also be normative in the sense that it becomes associated with minimum standards for acceptance into professional ranks.³⁰

In testing these hypotheses quantitatively and qualitatively, we relied on evidence in public media along the continuum of interaction events. Public announcements, especially in the wake of terrorist events, constituted the bulk of our data under the presumption that formalization heading towards a true CT knowledge nexus could not be held in secret across three large institutions. In short, so many actors would be involved that the normal way large organizations communicate—by public actions—would inevitably be used in the process.

In 2003, the United States moved toward the end of the continuum in knowledge nexus institutionalization with the creation of the new DHS. However effective it may prove, this response was exceptionally rapid, occurring within two years of the watershed event. The “new agency” response, however, is consistent with the historical effects of divided governance on US public agencies. Congressional partisan disagreements have often led to creation of new independent agencies rather than the overhaul of existing agencies.³¹ The US case is also distinct in scope because of the creation of an enormous agency consisting of 180,000 members. The establishment of this massive new agency involved the direct transfer of nearly 20 organizational elements from other agencies to the new department. Elements deemed related to CT were simply coerced, including several politically weak, formerly relatively independent, and culturally distinct agencies such as the US Coast Guard.³² Long-established organizational boundaries were unusually disregarded in this process, indicating extraordinary perceptions of urgency among political leaders despite the lack of direct long-term experience with terrorism.³³ In this work, the US counterterrorism knowledge nexus example is taken as a defining end of spectrum, unlikely to be the pattern of institutionalization in other democracies but informing in its efforts

to force knowledge sharing from the top down, onto and across distinct domains of the three security communities.

India as a Compelling Natural Experiment

A more likely pattern in CT knowledge nexus development is occurring in India. This large Westernized and federal democracy provides an exceptional natural experiment. Several advanced democracies such as the United Kingdom, Spain, and Israel have confronted international and domestic terrorism for years.³⁴ Only India's circumstances, however, pit exceptional experience with terrorism and a national bureaucratic culture recognized to be extraordinarily rigid and hierarchical.³⁵ It is a large, fractious democracy relying on extensive, independent, highly bureaucratized agencies with a history of very strong turf distinctions and a generalist, patriarchal civil service zealously guarding power distinctions in their organizations.³⁶

In India, strongly stovepiped and defensive security agencies pose particularly tough obstacles to forming an interinstitutional knowledge nexus of any sort.³⁷ Like most Westernized states, the Indian military, police, and intelligence agencies have entrenched and organizationally distinct cultures, policy preferences, legal status, domains, tools, competencies, and knowledge filters.³⁸ Similar to many nations, Indian security institutions do not seek to interact routinely. Even after crises that require cooperation, they usually minimize innovations or adaptations that would force continuing interorganizational boundary crossing.³⁹ Indian bureaucratic path dependence combines the complexities of the structures of British colonial administration with those of the underlying native Indian caste and ethnic divisions.⁴⁰ Information sharing faces some of the greatest bureaucratic challenges under these circumstances.⁴¹

Finally, long before the United States had its major attack, Indian forces were frequently experiencing terrorist incidents across states. Over the past 20 years, experience with homegrown terrorism across India ballooned, and with it, the interest of state police organizations in a visible response. As of 2006, the South Asia Terrorism (Web) Portal listed approximately 179 religious, ideological, and ethno-nationalist groups operating across India. Larger states like Manipur face 39 active terrorist groups, while even tiny Nagaland deals with at least three active organizations. Through 2001, the average civilian and security forces' casualty result was the equivalent of one 9/11 per year, or about 2,500 people. The number of annual incidents

is sometimes three times the death rate, leaving the police chasing duds, attempted bombings, and real events throughout the year.⁴²

Thus, India provides a particularly rich case for discerning evidence of institutionalization at the CT knowledge nexus owing to the cross-agency, comprehensive information requirements of CT campaigns. We used secondary sources in as comprehensive a review as possible of 10 years of published news reports, committee findings, and academic analysis on terrorist events from 1996 to 2005. We also charted the public evidence of increased interagency integration along social and technical axes in India in response to terrorism. Our goal was to see if a CT knowledge nexus could develop in India in any externally discernible way. Given the Indian institutional circumstances, if a CT knowledge nexus appears to be emerging here, then CT may be fairly construed as an institutional concept that approaches the power of war to force bureaucratic adaptation.

Indian Security Bureaucracies and Information Sharing

With its independence in 1947, India inherited the large public institutions, organizational structures, and class-imbued culture of British colonial administration.⁴³ For a variety of reasons, including scale and heterogeneity, many of these hierarchical organizations remain essentially unchanged internally⁴⁴ with strong patriarchal control mechanisms sustained from the Nehru era to the present.⁴⁵ The roots of preferences for rigid social divisions lie in Indian history of hierarchies among humans, animals, and deities. Sustained to a large extent by Hindu views of humans as stratified by caste and prior life decisions, unabashed elitism allocates power in many spheres of social activity in India.⁴⁶ Most government agency managers come overwhelmingly from upper and rising middle castes.⁴⁷ The pervasive tendency to observe distinctions in position and strong risk avoidance of Indian management culture is consistent with this history.⁴⁸ Unsurprisingly, decisions made in Indian bureaucracies tend to rationalize and perpetuate long-standing institutional power distribution, access, and information relationships.⁴⁹

In particular, the traditions encourage inaction. Independent decisions that operate outside of established procedures are bureaucratically dangerous, especially for decisions involving uncertain wider political ripple effects or whose known effects are strongly opposed by powerful external political forces. For

any given official, passing onerous and highly selective national exams is the prerequisite for lifelong employment, but beyond that gate, survival depends on having the right family, caste, and network of high-level contacts. Within federal and state bureaucracies, officials are frequently moved for trivial reasons. This churn has reinforced tendencies to avoid decisions that might cause an unhappy superior to suddenly move offending subordinates. Fewer than 50 percent of the federal bureaucrats stay in any given position for more than a year; most do not stay in place long enough to acquire specialized competence. The majority become corrupted as a consequence of developing defenses required to avoid the political costs of making decisions that powerful outside stakeholders may view unfavorably.⁵⁰

The number of civil service jobs and legislative positions reserved for “untouchables”⁵¹ and women complicates the social conventions separating castes and gender. Male members of the elite caste resent these equalizing rules, thus increasing the disinclination to respond positively to interaction requests within and across agencies. Positive discrimination in reserved positions has indeed recruited some of the most advanced members into the circle of the Indian elite. But it has also tended to help restrict cooperation to even smaller groups of friends among caste or ethnically homogeneous bureaucrats rather than encouraging synergy among a heterogeneous pool of government personnel. The normal rule-driven rigidity of the enormous civil service has been made even more sluggish for otherwise desirable purposes.⁵² The resulting ossification of internal procedures, in turn, further encourages the widespread use of “speed money”—bribes to ensure that some official action actually occurs.⁵³ Senior officials are disillusioned with the political system and their positions in it to a greater extent than are junior bureaucrats; however, they also tend to regard corruption and its inefficiencies as inevitable.⁵⁴

These distortions in willingness of public agencies to cooperate internally extend throughout all levels of federal and state government.⁵⁵ Parliament and reformers have made little headway despite many commissions and efforts to reform the densely turf-bound structures.⁵⁶ Changes to the standard operating legal codes nominally governing official practices are often simply ignored.⁵⁷ Recently, the Indian Supreme Court ruled that officials were to be left in place at least two years in what was widely seen as an anticorruption ruling.⁵⁸ This ruling was based upon recommendations first made in 1977; its chances of implementation are extremely unclear.⁵⁹ In Indian security organizations, the

major players have distinctive histories in their establishment and evolution; the resulting insularity is remarkably resilient.⁶⁰

CT information-sharing efforts in India face a daunting task in this massively fragmented, well-entrenched bureaucracy. In principle, the authorization for routine or in-depth interagency information sharing and acquisition will have to move upward through a number of higher levels of management before reaching a final decision-making authority.⁶¹ Normally, the highest-level managers make most of the decisions; procedures that force empowerment onto lower organizational levels are considered uncomfortable at best.⁶² While some sectors of the bureaucracy require and eventually obtain information from other sectors, role and procedural expectations, low competency levels among constantly rotated officials, and the deeply ingrained suspicions borne of class, gender, or ethnic distinctions prolong the process.

The Military in the Nexus

The Indian Army is first and foremost a direct descendent of the colonial administrative structures of the British Empire expressed in the British army up to World War II. As the oldest and most prestigious armed force in the nation, the Indian Army has retained a distinctively nineteenth-century British underpinning to its structures and enduring procedures. Serving under the Ministry of Defence (MOD), the army's million-odd soldiers are spread across six operational commands, or field armies. The organization controls the regular army, army reserve, homeland defense Territorial Army, and National Cadet Corps (aka ROTC).⁶³

In recent years, the army's focus has widened from engaging in high-intensity conflict to include low-intensity, internal security operations. Since independence, the Indian military has fought in three major wars, one minor conflict with Pakistan, and one border war with China. In the 1990s, however, in addition to its responsibility for external threats, the army began COIN operations against Sikh separatists in the state of Punjab. With the consent of the MOD, the army established new—or reoriented existing—paramilitary units for duties in Kashmir, Assam, and the northeast states. Today, the Indian Army's counterinsurgency-trained units such as the National Security Guards (NSG) are also expected to mount CT operations. Other services have specialized units or tools applicable to CT, but the army is considered the lead service for this mission.⁶⁴

Beginning in the late 1980s, military interaction with police units began to expand as COIN operations began to overlap the internal security obligations of local police forces.⁶⁵ Paramilitary forces now serve across military and police domains; however, they generally perform as military auxiliaries to the police to minimize army involvement in domestic law enforcement.⁶⁶ For example, the MOD established the 35,000-strong Rashtriya Rifles in the 1990s for COIN-acquired internal security duties in areas considered relatively pacified over the course of the decade.⁶⁷ The Assam Rifles, similarly, were initially formed by the British in 1917 to battle insurgency in the northeast but have evolved to participate in internal security operations in the northwest areas of Jammu and Kashmir.⁶⁸ Created under the military, these paramilitaries are legally under the broader jurisdiction and strategic control of the Home Ministry, along with clearly domestic security units such as the Home Guard, Border Security Force, Indo-Tibetan Border Police, Central Reserve Police Force, Special Security Bureau, Central Industrial Security Force, Civil Defence, Railway Protection Force, State Armed Police, and Defence Security Corps. However, since the MOD retains operational control of these forces, they are not considered, and do not consider themselves to be, police assets.⁶⁹

According to published accounts, interactions by the military with the national-level Indian intelligence services are limited to routine and high-level refined intelligence reports; dynamic, in-depth cooperation is rare at best. Since 1947, military intelligence organizations have been given the lead in intelligence collection in border areas.⁷⁰ In 2002, under considerable opposition by both national-level intelligence agencies and the services, the Indian Defense Intelligence Agency (IDIA) was created to integrate the separate and insular intelligence networks of the army, navy, and air force into a single organization similar to that of the US Defense Intelligence Agency. Designed to coordinate and share information across the military services and with the federal intelligence agencies, the largely civilian IDIA tracks troop movements in neighboring countries, monitors terrorist groups, and assesses internal security threats.⁷¹

Like other Indian bureaucracies, the military is noted for its lack of timeliness, accuracy, or comprehensiveness in exchanging internal information—even in conflict situations.⁷² The same applies to its ability to provide intelligence to or obtain it from external institutions, notably among the national intelligence agencies.⁷³ Any given military unit's ac-

cess to external intelligence data depends on a network of personalities in power, the urgency of events, and the character of the knowledge needed. Among military services, turf battles have long been considered debilitating and, until recently, accepted as endemic.⁷⁴

Indeed, information sharing across the Indian military or with the national-level intelligence services has not seemed to improve despite the recognition of a need for integrated knowledge in COIN or CT. The IDIA fell afoul of the bitter interservice and international agency rivalry over control of knowledge assets. Up to the late 1990s, intelligence cooperation between border COIN forces and the Research and Analysis Wing (RAW) in particular was infrequent at best. In spring of 1999, a surprised Indian Army found Pakistani paramilitary forces in place across the Kashmiri line of control between India and Pakistan; they had infiltrated earlier than security forces' estimates anticipated. The resulting conflict at the Kargil Pass reinstated the status quo. This time, however, the usual post-conflict struggle to assign blame for the intelligence failure concentrated attention on integrating military and national intelligence capabilities—the result was the IDIA. The military, citing risk to internal efficiencies, has subsequently proven reluctant to share information. Integrated staffs within each military branch have administratively undermined the transfer of existing operations to IDIA divisions or subordinate organizations.⁷⁵ The military's refusal to share knowledge with the IDIA replicates enduring turf battles and has, thus far, channeled IDIA and its liaisons between different agencies into accepting the service's traditional, archaic, and inefficient system of reporting and analysis.⁷⁶

At higher levels of civilian agencies, such as the Intelligence Bureau (IB) and the RAW, officials tend to view the IDIA as a competing intelligence agency.⁷⁷ At lower levels, the IB and RAW, with the IDIA in attendance, will occasionally conduct joint meetings with coordinated analysis for use by army commanders in areas governed by the Armed Forces Special Powers Act.⁷⁸ These field meetings are designed to encourage interaction among field personnel of all the organizations, but they are not technical and are too uncommon to be considered evidence of institutionalization.⁷⁹ There is little data so far to indicate that the establishment of the IDIA is altering either the basic landscape of information sharing between agencies or the distorting effects of loyalty to specific service branches. Figure 3 presents the military institutions associated with the development of the CT nexus in detail.

responsibilities after the first Indo-Pakistani War of 1947–49. Recently, the IB's influence in national security decisions rose dramatically with the growing recognition of the importance of accurate and timely intelligence collection in border states and beyond.⁸²

The RAW emerged in the early 1970s from the remnant of the Indian Air Force's small aerial reconnaissance center as a wing to a larger IB. The RAW subsequently became a separate agency when its founder, Rameshwar Nath Kao, persuaded Prime Minister Indira Gandhi to designate the head of the organization as a secretary in 1976. Elevating the organization to the prime minister's cabinet greatly increased its influence on domestic and foreign policies, given its nominal equivalence in power and status with the other secretaries of the Indian government. This bureaucratic positioning engenders resentment on the part of IB managers because the IB head remains a director, rather than having status equal to his cabinet-level RAW counterpart.⁸³

The RAW has become India's most powerful intelligence organization among the three referent national (military, domestic, and foreign) intelligence agencies.⁸⁴ The organization has expanded beyond its original external intelligence mandate to become a powerful stakeholder in domestic policies as well.⁸⁵ Technically, under the jurisdiction of the Ministry of External Affairs, the RAW sits at the behest of the prime minister's cabinet and is said to conduct propaganda and disinformation campaigns, espionage, sabotage, and intelligence gathering in neighboring countries—particularly in Pakistan.⁸⁶

The two agencies overlap structurally only as members of the Joint Intelligence Committee, a component of the National Security Council.⁸⁷ However, the increasingly more politically salient issue of foreign-based, locally conducted terrorism constitutes a natural and contentious domain overlap between the two agencies. The two agencies also cooperate on an ad hoc basis with the military in COIN operations.⁸⁸

As Indian bureaucracies evolved with the right to much greater secrecy in operations, the Indian intelligence services reinforced interorganizational insistence on turf boundaries. As evidence of this insularity and blunt arrogance, for the first time in its history the RAW responded to a nonofficial request for information in early 2007 but only with a solemn reminder to the public that it was not obliged to comply with any "Right to Information" laws.⁸⁹ Standard external authority controls on insular bureaucracies have seemingly been applied with limited effect. For example, while not

uncommon, the appointment of outsiders to senior leadership positions in both the IB and RAW causes debilitating resentment and internal withdrawal of cooperation. The recent appointment of a retired former senior IB counterintelligence official to head the bureau was discussed publicly as a positive step to get the agency's senior managers on board with new operations.⁹⁰ Animosity within an organization can slow the process of swapping information across agencies. Avoiding paralyzing internal or cross-boundary turf battles often means appealing to the highest levels of government and of each agency to obtain and to integrate data; normally this struggle requires considerable political interest and policy benefits to be at stake.⁹¹ The top-down imposition of integrating organizations has not worked well. Particularly after 9/11, the public and political concerns with intelligence failure that lingered from the 1999 Kargil conflict re-kindled efforts to reform the Indian intelligence agencies' widely known reputation for insularity. The IB, in particular, was blamed for the lack of domestic cooperation producing actionable intelligence for internal security. In 2000, the central government appointed a senior-level task force headed by former RAW chief Girish Chandra Saxena to investigate and propose necessary reforms to intelligence agencies. The confidential report focused on organizational structures, interactions, and staffing, forcing two new wings onto the IB by late 2001: the Multi-Agency Centre and the Joint Task Force on Intelligence.⁹² In the next year, the military would be forced to accept the IDIA as a new institution as well. Despite the intent of these integrating solutions and a common CT obligation, each of the three—the IDIA, RAW, and IB—has its own internally developed strategies to defend. Improvements in interagency coordination on joint counterterrorist plans at the national level have not been apparent.⁹³

Leaving aside the political power of agency self-interest, India's political leaders are fundamentally conflicted in their support for integrating these insular organizations. Occasionally, the political parties use the intense competition between agencies as a way to control each otherwise imperial bureaucracy. Despite the formal sanctions on agency violations of all of India's standard bureaucratic procedures, both parliament and the central government's senior officials have limited direct influence on these agencies in the face of the life tenure of intelligence officials. They also face a legally supported lack of openness to public inquiry inherited from the British. Using the disputes between agencies adds some leverage to an otherwise limited toolkit for civil control of operations and policy

implementation.⁹⁴ Furthermore, incidents of terrorism have not changed the situation because many senior politicians continue to regard terrorism solely as a law and order problem that does not require greater attention across cooperating and proactive intelligence agencies.

On the bright side, information not considered critical to bureaucratic battles is usually shared on the systemic level in some fashion, though it may not be timely or comprehensive.⁹⁵ Exchanges meant to be more substantive, entailing specialized expertise, usually involve midlevel-to-midlevel emissaries rather than the wholesale provision of databases in paper or of access to digital holdings. On an ad hoc basis, both agencies send midlevel officers to meet with military commanders for specific COIN operations, usually in the northwest or northeast section of the country.⁹⁶ Figure 4 presents the intelligence agencies participating in the Indian CT knowledge nexus development.

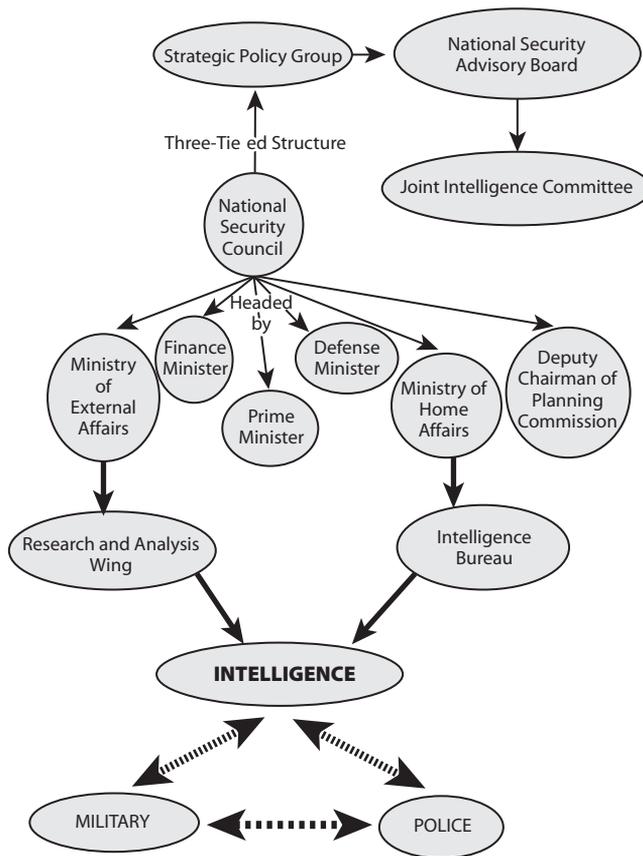


Figure 4. Intelligence agencies in the Indian CT knowledge nexus. (Adapted from Demchak and Werner, “‘Knowledge Nexus.’”)

Police Forces in the Nexus

Since their state-by-state establishment under British rule in the early 1800s, the structure and internal presumptions of the Indian state police forces have remained virtually unchanged.⁹⁷ Established to maintain authority for the British Raj, the police's administrative role and vast powers were intended for keeping civil order, not for preventing and detecting crime or, for that matter, terrorism.⁹⁸ In 1860, the first reorganization of Indian police began and took place and is still in force today, roughly 145 years later and over 50 years after Indian independence.⁹⁹ The Indian Police Act (IPA) of 1861 put the police under the control of the provincial (now state) governments and distinguished between police and military functions. The reorganization's intention was to create an aggressive civilian police force that would relieve the British army of onerous and manpower-intensive duties.¹⁰⁰

In principle, state police forces are standardized in their operations, in leadership loyalty to all India standard operating procedures, and across critical structures involving lethal force. The Indian Penal Code, Code of Criminal Procedure, and Indian Evidence Act form the basic legal system for police operations throughout India. Similarly, the laws governing the structure of the police organization, officer training, and even the administrative forms and rules are virtually uniform across the country. A director general belonging to the Indian Police Service, the federally recruited body from across India, heads each state police organization and, in principle, this federally trained and selected appointee has jurisdiction over all subordinate units (districts, urban cities, and rural areas) in a particular state. Furthermore, on the national level, key players such as the federal police services, most of the paramilitary forces, and the internal intelligence capabilities found in the IB are subordinate to the federal Ministry of Home Affairs.

In reality, the effective extent of this federally led standardization is limited. The 1861 IPA added to the large overlapping pyramid of national, state, and local police agencies an unusual dual internal separation of all police officers into two vertical branches: armed or unarmed. This structural bifurcation has had profound fragmenting effects on organizational development paths, administrative cultures, and attitudes across state police forces.¹⁰¹ Indian police forces below the federal level reflect Indian states' ethnicity, language, and culture in their recruits, organizational operations, and local presumptions about roles and behaviors. The result is a wide range in state police competencies and initiative beyond merely maintaining rough social order. Each urban city has its own city

police with a variety of departments. The larger districts are subdivided into police station jurisdictions, with 70 percent of the staff consisting of beat constables with no investigative roles. Compared to other English speaking countries (United Kingdom, United States, Australia, and Canada), India has only a small portion of police staff available for investigative duties and associated paperwork.¹⁰² This arrangement limits the knowledge collection and potential analytical contributions to CT programs for most police units.¹⁰³

In the age of more diffuse terrorism, COIN forces have been evolving into dual-purpose forces among special police units as well as military units. The Central Reserve Police Force is a national police force that assists state and union territories in maintaining law and order and in conducting COIN operations.¹⁰⁴ Other national police organizations have been developed to deal specifically with international border patrol. For example, one entity encompasses the Indo-Tibetan Border Police and Border Security Force. Despite their primary task specialization, these organizations have also deployed to Kashmir and Assam for internal security duties including COIN operations and maintaining law and order.¹⁰⁵ Nonetheless, local police in principle have the internal law and order responsibility, and this ad hoc arrangement generally leaves the local forces politically accountable for failures to prevent terrorism.

Information sharing within and among police agencies reflects the trust, reluctance, and narrow focus common to other Indian bureaucracies. Indian police forces are strongly horizontally stratified, with promotion based on rank and seniority, rarely on critical specializations or particular demonstrations of competence. Copied from the promotion year groups of military forces, the police are organized into cadres by rank. The allocation of power and authority by rank, not position, complicates relations between the central and state police units, since equivalent ranks may occupy very different positions and experience equally different circumstances. A tangled pattern of competition and mistrust throughout these organizations shapes cooperation across police agencies in general.¹⁰⁶

The 145-year-old rigid vertical division of police forces into unarmed and armed units continues to magnify the lack of cooperation, and to this are added the distinctions of class, gender, ethnic, and other organizational divisions. The 1861 IPA division assigned unarmed police administrative and patrolling duties and armed police the more prestigious tasks requiring physical force. Due to this functional division, for nearly 100 years British colonial administrative officials, including the military, gave spe-

cial attention to discipline and training for armed police. In so doing, they gave armed police considerably more status, empowering them with the ability to protect themselves.¹⁰⁷ In social terms, this distinction reinforced the power distance inherent in Indian society and further dampened trust and the willingness to share knowledge because unarmed police did not have access to this source of prestige.¹⁰⁸

Furthermore, endemic corruption at all levels intensifies the secrecy or friction between officials. Legislatures routinely try to use police department funding as a tool to force greater efficacy in crime control. The resulting struggle to be seen as more effective against crime routinely produces predatory behaviors and the resort to illegal methods to show politically acceptable outcomes between police units. In standard police units, specialized competence is not required for promotion to senior officer positions. Promotions occur regardless of the candidate's qualifications, and many are governed by caste, favoritism, or nepotism. Ambitious officers eager for early promotions and choice postings use administrative decisions to curry favor with political leaders.¹⁰⁹ With no checks and balances in administrative oversight other than competitive predation and superficial achievements, the cumulative effect of this system of generalist training, turbulent working conditions, patriarchal and repressive management rules, and particularistic and erratic leadership practices is inevitably a lack of trust and cooperative information sharing.

The constitutionally mandated federal-state superstructure for law enforcement also generally inhibits information sharing. The competing centralized and decentralized structures make the Indian police more complex than those in other democracies. While states have their own relatively autonomous police jurisdiction, the central government's history included periods of heavy central control. A great many control mechanisms from those periods persist in the form of, for example, standard procedures and recruiting.¹¹⁰ State-level police forces buffer themselves procedurally and operationally between the often conflicting demands of these overarching centralizing and decentralizing administrative forces. Endemic budgetary shortfalls contribute to the burdens on officers. For the average officer with too little time, technical training, leverage, and professionalism, joint operations with other departments are unattractive if they require additional efforts (as information sharing often does). Furthermore, such activities inevitably induce disputes over whose budget absorbs the inevitable additional expenses associated with new operations or relationships. These conditions reinforce bureaucratic tendencies to avoid increases in one's

own agency's expenses in terms of time or resources, or in threats to one's personal political prospects.¹¹¹

Among state police forces, routine knowledge sharing is generally sluggish and reactive; when federal forces are involved, normally it is as poor, if not worse. In this highly classed society, if federal forces are called upon to aid state police forces in nonroutine events, historically in both budgets and authority, the national-level forces demand—and inevitably receive—operational dominance. Sudden events that overwhelm local state police forces will usually prompt the central government to send army or paramilitary forces ostensibly to “aid” the civil police force. The federal forces, however, are entirely under central government control, thus demeaning the role and status of the state police forces being “assisted.”¹¹² Efforts by the Ministry of Home Affairs to intervene in purely state business have noticeably increased since the establishment of a federal police in the 1970s.¹¹³ During such ad hoc and usually reactive “assistance” operations, turf battles between state police, paramilitary, and federal police forces often become matters for public discussion.¹¹⁴ Figure 5 presents the Indian state police organizations participating in the Indian CT knowledge nexus development.

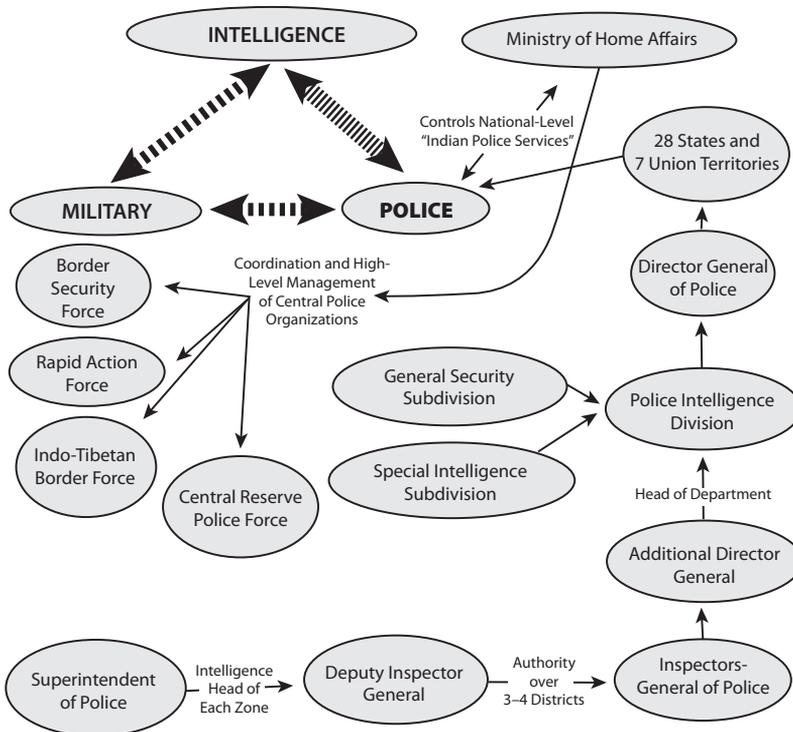


Figure 5. Police elements supporting the Indian CT knowledge nexus. (Adapted from Demchak and Werner, “Knowledge Nexus.”)

Findings: State-Level Antiterrorist Squad as Emergent Nexus

With this structural, cultural, and institutional history, the evidence of an emergent CT knowledge nexus anywhere in the Indian bureaucracy would seem unlikely. Given the presumptions about power distance, patriarchal management, and centralized control, if any nascent institutionalization in a CT knowledge nexus were to be found, we expected the central government's interest in CT to drive its birth and development. Yet, we found the evidence of a nascent nexus much more compelling at lower levels, closer to the experience of terrorism by the organizations more acutely aware of the consequences of a lack of knowledge. Furthermore, these lower-level organizations apparently responded earlier and more favorably to the status and professionalism boost associated with acting proactively to solve an urgent and life-threatening problem.

As our research suggests, state police forces breached their organizational walls first to begin the institutionalization across the Indian CT knowledge nexus and, in a sense, got lucky. The federal agencies have unexpectedly tolerated this flaunting of traditional prestige and leadership prerogatives. It is not clear why the normally rather imperious national-level agencies would not have attempted to supplant, undermine, or control the nascent institutionalization. We speculate that the state police were first past the post and already clearly operated an institutional forum readily adaptable for attracting knowledge sharing. For the military and intelligence agencies, such an outlet was not readily at hand within their communities for local political or international demonstrations of participation. Furthermore, many of the national-level senior officials have yet to accept that CT is a long-term crosscutting threat. Not making CT a prominent institutional motif in their ranks, they have also not targeted their heavy political guns on this potential institutional source of increased state police prestige. Hence, it may be that, in the bureaucratic circumstances of modern India, only a bottom-up initiative would have had a chance for success. Because of the external push and prestige, it was possible for the institutional objectives to converge on jointly building state-level ATs without having overarching national-level bureaucratic competition impede progress as would ordinarily occur.¹¹⁵

In 1986 India created its first counterterrorist units, the National Security Guards, which were the "first bricks of India's counterterrorism architecture."¹¹⁶ Numbering about 7,500 mixed military and police officers, the NSG is consid-

ered a highly valuable and experienced group in COIN in the northern state of Jammu and Kashmir, and previously in Punjab. “It is divided into two roughly equal groups—the Special Action Group (SAG) and the Special Ranger Group (SRG). The SAG is the elite offensive group, which recruits its members from the Indian Army. The SRG consists of supporting personnel recruited from paramilitary and police units such as the Border Security Force, the Central Reserve Police Force, and others. The SRG has the job of securing and isolating the target for assault by the SAG.”¹¹⁷ While officially under jurisdiction as a military unit, the NSG does not contain any intelligence acquisition and sharing capabilities and depends on external intelligence agencies.¹¹⁸

The mid-1980s establishment of the NSG influenced the subsequent creation, objective, mission, and training of state-level antiterrorism squads, especially in states that experienced terrorism for many years.¹¹⁹ India became the first federal democracy to have state-level ATs, in part because state police clearly have the “law and order” responsibility and in part because terrorism was historically localized in places like Kashmir and not considered a national-level problem.¹²⁰ As different types of terrorism began to expand across borders and involve multiple states in devastating terrorist attacks, state governments individually began to set up ATs as relatively quick solutions to defuse political pressure and possibly to prevent future attacks. By 2001, but before the attack on the United States, 18 Indian states had established 10 full-time and nine near-full-time proto-ATs.

By the end of the 1980s, part-time police attention to terrorism and the strong reliance on the army or the paramilitaries to bail out an overwhelmed police force grew less politically acceptable at the local level. In 1989 Andhra Pradesh Police created the first AT, called the Greyhounds (reorganized in 2005). This unit was specifically dedicated to developing CT tactics and procedures acquired from the federal NSG, which in turn was modeled on the British SAS, German GSG-9, and Israeli Sayeret Matkal. This first official, full-time AT at the state level served as a training source for other state-level units learning antiterror tactics, procedures, and operations prior to forming an AT. This unusual sharing of tactics and techniques across normally competitive police forces led to the successful establishment of AT institutions in other Indian states such as Orissa, West Bengal, Maharashtra, and Chhattisgarh.¹²¹

The surprising aspect of these ATs is their unprecedented level of police, intelligence, and military cooperation fostered by what is normally seen as a lower level of the national bureaucracy. Each AT draws essential mission training, planning skills, tactical plans, and doctrine from the military via

the NSG. From each major intelligence agency the ATSs receive seconded officers serving long-term rotations up to 18 months. The effect is a constant flow of contacts, expertise, and personally delivered access to critical data that would otherwise not be available to state-level officials.

Another particularly unexpected attribute of these ATSs—given India's complex bureaucratic architecture—is the general acceptance that the local ATS has exclusive right to collect and verify intelligence information in its jurisdiction and carry out operations in any part of the state. Tasked with coordinating between the multiple levels of intelligence agencies and analyzing inputs on terrorist activities, ATSs are formally designated as the lead actors confronting terrorist activities in their jurisdiction. It is rare, if not unprecedented, for a state police organization to have intelligence preeminence in an area also considered the domain of the national-level agencies. At the federal level, army, IB, RAW, and federal police forces have occasionally cooperated briefly for a single, usually nonroutine objective but historically have gone on to clash repeatedly over operational procedures in the aftermath of operations. The creation of ATSs and the urgency of antiterrorism successes have, in this domain, nullified the earlier system where anti-insurgency operations were the preserve of the Indian Army and the paramilitary forces, both of which report to the central government with no obligation to coordinate with state-level entities.¹²²

This special position seems to have been anticipated and embedded into the mandate of these units from their initial inception in India. For example, in 2003 an ATS in Mumbai planned in advance to “co-ordinate between the city, state and intelligence agencies and analyse inputs on terrorist activities.”¹²³ At the state level, the ATS organization facilitates more cross-jurisdictional interactions over the longer term and across objectives than occurs normally in overlapped federal operations. Hence, all things being equal, participating in an ATS offers considerable prestige for police officers. ATS organizations are therefore more able to recruit qualified and trained professionals without as much of the intervention or precoordination processes found in the more rigid standard police or military command structure.

In particular, ATSs seem better placed to initiate antiterror operations with greater secrecy and responsiveness to local conditions.¹²⁴ While police forces themselves are distinct due to their origins and political circumstances, ATSs have specialized over time to reflect the flavor of terrorist groups in their states.¹²⁵ An ATS in Chandigarh will confront terrorist activities with a different ideology in contrast to the ATS in Andhra Pradesh, where ter-

rorist activities reflect Naxalite antiregime activities.¹²⁶ For example, Jammu and Kashmir's once proto-antiterrorism squad, the Special Operations Group (SOG) (established in 1994), has evolved from a relatively passive unit staffed by locally recruited volunteer officers to a proactive operating unit specializing in knowing the region. Reasons for volunteering for ATS duty range from passionate dedication to financial incentive. The SOG antiterrorism squad has evolved into a robust center for coordinating operations focused on the conditions of the Northwest. It is capable of coordinating large-scale operations with paramilitary forces of the Indian Army while sharing its intelligence with central government forces.¹²⁷

Indian terrorism in both numbers of incidents and casualties declined after 2001, and yet the rate of establishment of ATSs did not. Since the United States had not yet made terrorism a household word prior to 2001, it is fair to attribute the stimulus for the earlier institutions to actual experience and to an unusual history of urgency passed along among police, military, and intelligence officers rotating across CT positions. For police officers, counterterrorism operations were urgent and prestige enhancing professionally when terrorism was on the rise. The Greyhounds of Andhra Pradesh demonstrated early on an unusual willingness to integrate officers from other services into these activities, offering interesting work and more resources. As officers rotated across state ATS and proto-ATS (those with part-time CT duties), the greater professional and social interaction also likely increased trust, broader intelligence sharing, and more effective joint state operations against terrorists operating across states. This positive feedback loop appears to have continued even as the incidents themselves declined. Service at a state level ATS in the heart of the knowledge nexus appears to have become desirable across the police officer community.

After 9/11, the international community also contributed to the enhanced prestige of ATS service. After 2001, in its efforts to have as much intelligence provided as possible from all conceivable allies, the United States pushed very publicly and internationally to make antiterrorism activities status enhancing across the various international referent groups—police, military, and intelligence officers.¹²⁸ The US-framed argument was compelling in light of the deepening of globalization and dependence of many nations, including India, on the global sociotechnical infrastructure (GSTI) sustaining economic growth.¹²⁹ Representatives of the United States argued that members of the developed and advancing world of democracies are part of a vital GSTI threatened by terrorism. The message emphasized that attacks on one will inevitably harm others

and, hence, all must corral the civil-military capabilities of each nation to protect ourselves as well as others.¹³⁰ Being a stalwart warrior ready for the coming battles against terror from globalized radical groups thus not only offered local professional pride, but also the possibility of US resources to the country.

This public marketing had an underlying truth in the objective reality of interdependence that was—and is—obvious. The influence of the remaining superpower, the United States, to force an item to become important on the world's agenda added to the attraction of security officials in many nations to be seen as part of the grand alliance saving democracies from this existential threat. For Europeans, the post-9/11 attacks on Madrid and London reinforced the US message, deepening the worldwide salience of CT as an issue for senior political and professional leaders to consider.

Furthermore and not least, the global war on terror, so named by the United States, came with the vague promise of financial or other benefits to those democracies signing up to participate.¹³¹ Although the evidence is spotty that this benefit has been widely distributed, nonetheless, the bilateral possibility has helped spread the prestige of association with the program.¹³² For public agencies with few clear-cut ways to demonstrate effectiveness, prestige among stakeholders and military, intelligence, and police referent groups offer a substitute performance measure.¹³³

With the bureaucratic reality of being public agencies in India, all three security communities would, in principle, find international referent group and local political prestige advantages to be seen as participating in the transnational antiterrorism cause. One would expect national-level agencies to attempt to take the forefront in order to absorb the bulk of the available prestige, but their bureaucratic instruments were already tied up in the army or paramilitaries with a mixed bag of traditional obligations. The prestige tended to gravitate toward the community with an existing institutional model, the state police.

As a result, from 2001 to 2005, over a scant four years—despite declining local experience with terrorism—eight new ATs were formally designated; five were new institutions, and three were reorganized from part-time to full-time ATs. To move quickly, there was only one solid game in town and that was the AT instrument now firmly within the power of the state police to create and run. The timing of this growth strongly suggests that, by this time, the prestige and possible effectiveness of this institutional instrument were driving its support across all three communities. Figure 6 summarizes this acceptance of the central position of the AT in the CT domain and in the Indian CT knowledge nexus.

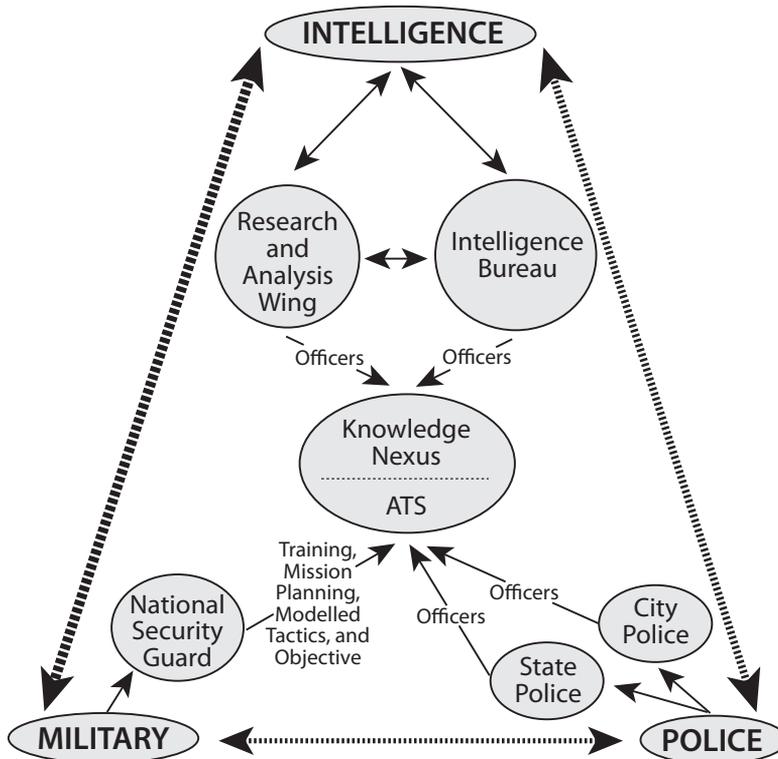


Figure 6. Nascent Indian knowledge nexus. (Developed by Demchak and Werner, 2007.)

Conclusion

By 2005, nearly every state in India had an ATS operating in its territory, each with contacts to the military and seconded officers from the IB and the RAW. In the process of personnel rotation, CT operations, and shared daily experiences, previously unobtainable intelligence information flowed between these organizations. By our definition, a nascent knowledge nexus emerged, as shown by the organizational evidence of collaboration, acceptance, and presence in public reports. We found no evidence of this nexus being pursued along technical lines in terms of functioning information technology systems. It is possible to have some networked exchanges, especially after a seconded officer has returned to the national agency but retains some friendship and loyalty for the ATS in which he served. However, consistent with the history of information technologies within Indian public agencies so far, it is unlikely that extensive technical systems are being built and used.¹³⁴ The more likely technical scenario involves rudimentary technical means such as e-mail, occasional data disks, and some Web access.

This work explored a hypothesis that a lack of knowledge felt by an organization concerning something really important would generate action to fill that gap and that reaching outside the organization is a reasonable next step unless cultural, organizational, or other obstacles stop the search. If these obstacles exist routinely in abundance, then our model suggests the importance of the problem has to be even greater to push organizational insiders to reach out to other organizations or to be receptive to being contacted for knowledge. As long as the knowledge is needed and the stimulus elevated, we hypothesized that the sharing would continue.

A secondary hypothesis held that CT seems to present that kind of powerful stimulus in India. We began by presuming the mass casualty goals of terrorists would be sufficiently important to inspire a knowledge search outside organizations. To test this idea, we looked for evidence of such sharing overcoming rather enormous obstacles in order to obtain missing knowledge, as well as for evidence that terrorism's enduring presence would result in the slow formalization of this sharing into institutional linkages in a nexus. The stronger the need, the more these links would mature. Hence, we looked at a really tough case—the very turf-bound Indian bureaucracy—for evidence that terrorism could force otherwise unlikely knowledge sharing.

Both of these hypotheses proved to be valid. However, the surprise for us was the path taken. The least prestigious of the three communities—military, intelligence, and police—ended up sponsoring the kernel and growth of the nexus. The state police filled in the empty institutional space where such exchanges among the communities could be had, were definitely needed, and could endure over time as the problem persisted. In the process, their institution—the state police ATS—became the model for expanding antiterrorism activities as more ATSs were established despite a decline in actual domestic Indian terrorism.

The Indian experiences offer some lessons for the United States in its counterterrorism efforts. First, reaching outside organizational boundaries is often not successful if merely imposed from the top. The desire to find missing knowledge must be felt urgently by those who will participate in the creation of a knowledge nexus. Experience with bad outcomes, without the missing knowledge, is historically the best stimulant for organizational members to reach outside; but often enough a clear, unmistakable prestige associated with participating in the nexus also furthers its development. Senior leaders can clearly enhance the prestige of knowledge sharing by

participating in nexus exchanges and by using the social tools they already have to reward change agents at midlevels or even lower.

Second, working with another organization must be institutionally seen as easy as well as useful. In the Indian case, the officers seconded to ATS were left in place longer than were their compatriots in other positions, making the process of exchange and networking a natural part of the workday. In the United States, the use of “Atrium” cyberspaces into which all individuals rotate at set points in their careers makes exchanges easier and more likely to develop the missing knowledge by tapping into tacit knowledge. The appendix has a short description of this model of collaborative tacit knowledge development applied to joint operations. The key is that the computer as a colleague provides a virtual institutional arena in which everyone must periodically enter to operate with others. Assigned to or simply accessing the Atrium, each member at some point plays out hypotheses collectively, exchanges observations, and extracts new knowledge as needed.

Third, technological advances do not operate as integrators or effective knowledge development tools unless the social groundwork has been laid to make the knowledge nexus processes both useful and easy to pursue. The case for expeditiously finding missing knowledge must be unmistakably and ever present, and the means must be readily at hand and easily grasped up and down the ranks of the organizations that will form the nexus. In India, the early pressure from ballooning terrorism met the useful requirement, and the Indian/British habit of widely seconding officers made it easier to redirect them into the emerging state-level police innovation called an ATS. The organizational innovations spread as a result, institutionalizing the CT knowledge nexus in India. The US Department of Homeland Security was a top-down imposition into the otherwise moribund CT knowledge nexus of the United States and has yet to fulfill its collaborative knowledge development mandate. For the US military, even in an Atrium joint military, the social construction of knowledge nexus development will be a bigger challenge than assembling the technical systems. **SSQ**

Notes

1. Our many thanks to Craig R. Haubrich, whose research assistance at the outset of this project in investigating several candidate case study countries brought India’s interesting knowledge nexus path to our attention.

2. The classical literature on organization theory and the formation of the modern political state is voluminous. As a result, we will not cite beyond a few classical authors for the benefit of scholars new to the field. See James D. Thompson, *Organizations in Action: Social Science Bases of Administrative Theory* (New York: McGraw-Hill, 1967) for a discussion of organizations and their search for

certainty. See Philip Selznick, *Leadership in Administration: A Sociological Interpretation* (Berkeley, CA: University of California Press, 1984) for a discussion of institutionalization. David Easton, *A Systems Analysis of Political Life* (New York: Wiley, 1965) discusses basic political theory in modern democracies. See W. Richard Scott, *Organizations: Rational, Natural, and Open Systems* (Upper Saddle River, NJ: Prentice Hall, 2003) for a nearly peerless review of the notions of organization theory and institutions. See Easton, *Systems Analysis*, and James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989) for discussions of how bureaucracies develop their internal notions of what must be pursued and how. For a more recent discussion of these prior notions and their cross-cultural implications, see Geert H. Hofstede and Gert Jan Hofstede, *Cultures and Organizations: Software of the Mind*, 2nd ed. (New York: McGraw-Hill, 2005).

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Appendix

Atrium Model of Collaborative Knowledge Development for Joint Operations

The Atrium model of “computer as colleague” deliberately structures as routine the tacit knowledge collaborative development across otherwise disparate communities needed to meet critical infrastructure crises. It was originally designed for use by militaries modernizing into network warfare and needing to capture and develop tacit knowledge from many subordinate organizations in order to meet surprises. The Atrium model is intended to be an alternative sociotechnical organizational design based loosely on Nonaka and Takeuchi’s original corporate hyperlinked model and incorporates the computer as a colleague, not as a library or controller.¹ Rather, the knowledge base of the organization explicitly seeks to provide a familiar place to get these lessons and to share one’s own. Entering into and interacting with the Atrium is essentially acting with a major player in the institution.

One “goes into” the Atrium as a consumer, contributor, or producer. Each individual in the allied organizations cycles through every role—no exceptions for leaders—in order to provide the stabilizing locus of institutional memory and opportunity for creativity. As individuals transfer into a new long-term position, they spend several weeks as “contributor” doing a tacit data dump—including frustrations about process, data, and ideas—into their organization’s share of the Atrium files. They would also spend up to half of that time in virtual simulations with other members across organizations, creating or recreating problematic situations for collaborative solutions. Noncritical identifying tags may be masked to encourage honesty, and then the knowledge is added to the central pools. While everyone routinely cycles through the Atrium to download experiences, every so often—perhaps once every six months—each person also spends a week or so as a “producer.” In this role, individuals set up questions and look at the data for the benefit of their organization and the entire community. As “consumers,” all Atrium organization members can tap into not only what contributors have input but also into the results of these simulations. Furthermore, they can apply simple language queries, data mining, or other applications to expanding pools of knowledge created by the producers in order to guide their future processes.

Explicit and implicit comparative institutional knowledge thus becomes instinctively valued and actively retained and maintained for use in ongoing or future operations. Frontline interrogators, for example, would try to define the kinds of questions they or people like them would like to have answered. They would also look at new data with an eye to what kinds of questions that data might answer. The goal is for them to understand what knowledge is out there beyond what they have asked so far and to see new patterns they had not thought of before. Visualization is exceptionally powerful in this process. The effect is a broader understanding of other organizational dilemmas and approaches to solutions.

This commonality in experience permits easier cycling through collaborative task forces as well—the kind of coordinated behaviors critical for crisis and deployed operations and so dependent on trust and interactor knowledge. For the members of a joint operations system, this cycling needs to be both routine and of value to their own work in their owning organization. Hence, interrogators in Iraq as well as supply reservists in California would need to find something of use for them when they share their tacit experiences in the joint Atrium. Once operations begin, each organization leaps into surprise-response activities. Through the Atrium, member organization decision makers are more aware of the roles and likely actions of other agencies in their grand alliance. They are also more likely to know many of their corresponding actors in other organizations through the simulations.

Figure A.1 shows the joint Atrium model notionally as the underlying space linking the joint organizations. It has three broad sections: the Atrium itself, the core composed of the jointly operating organizations, and the task forces deployed out of these organizations.

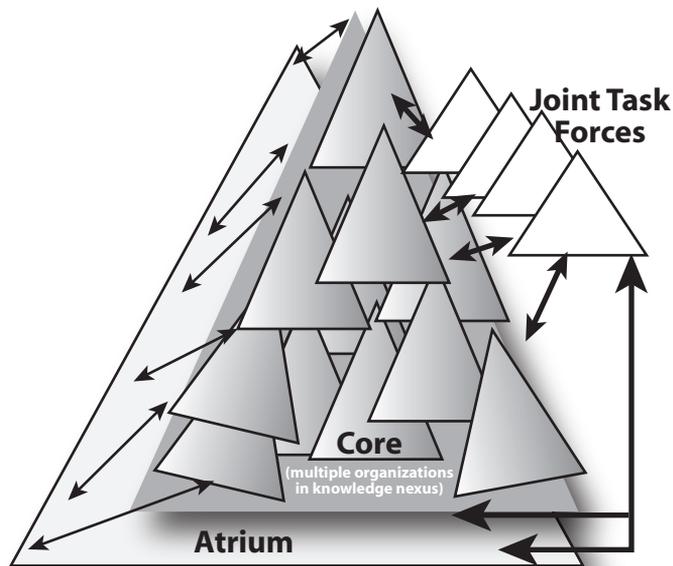


Figure A.1. Joint Atrium model. (Based on original model development in Chris C. Demchak, “‘Atrium’—A Knowledge Model for Modern Security Forces in the Information and Terrorism Age,” in *Proceedings of the First Annual NSF [National Science Foundation]/NIJ [National Institute of Justice] Symposium on Intelligence and Security Informatics*, Tucson, Arizona, 2–3 June 2003 [Heidelberg: Springer-Verlag, January 2003], 223–31; and Demchak, “Technology and Complexity: The Modern Military’s Capacity for Change,” in Conrad C. Crane, ed., *Transforming Defense* [Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2001].)

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Divine Victory for Whom?

Airpower in the 2006 Israel-Hezbollah War

William M. Arkin

Introduction

Air warfare is inherently a difficult to imagine activity, and images of urban devastation, carpet bombing, and mass civilian casualties dominate public discourse. With the emergence of 24/7 television and the Internet in the 1990s—a period that also coincided with the maturation of precision weapons and airpower as the dominant component of strategic warfare—the challenge of “seeing” airpower ironically magnified even more. Air warfare “statistics” and gun camera video accumulated, but they communicated video game heartlessness and suggested perfection while emphasizing the almost industrial nature of the air warfare enterprise (Airmen even spoke of the “production” of sorties). Habitual operational security and the sensitivity of operating from foreign bases, together with the internal challenges of jointness, further constrained the telling of the airpower story.

Airpower’s inherent quality and these constraints have made destruction the most accessible and visible element of the enterprise. Airpower and its targets have become intrinsically subject to greater review and audit because of the very economy of effort and the triumph of discrimination. The airpower story then, located almost always in “enemy” territory, has naturally become one-dimensional. The friendly briefing and public relations function has largely been reduced to one of incident management of the occasional, though highly magnified, mistake (i.e., industrial accident).

Israel faced all of these problems and more in 2006. Even ignoring the bigger question of prejudice against the Israeli state, Israel followed all of the self-defeating patterns of conveying the modern air war story. What

This article is an excerpt from William M. Arkin, *Divining Victory: Airpower in the 2006 Israel-Hezbollah War* (Maxwell AFB, AL: Air University Press, August 2007). Arkin is an independent military analyst, journalist, and author. He writes the “Early Warning” column for washingtonpost.com (where he previously wrote the “DOT.MIL” column from 1998 to 2003) and is a longtime NBC News military analyst. Arkin is also an adjunct at the School of Advanced Air and Space Studies, Air University, Maxwell AFB, Alabama.

is more, it operated with even more obsessive security classification and information control than the United States, making even the statistics of Israeli Defense Forces' (IDF) activity sparing and inconsistent. Hezbollah, on the other hand, practiced not only consummate operational security but also mounted an extremely skillful and centralized information war, practicing admirable and strict message discipline. Hezbollah was further aided by a government of Lebanon that filled emotional, disorganized, and inaccurate space that let the terrorist organization bask as a seemingly passive bystander.

When I went to Lebanon and Israel in September 2006, I knew that telling the story of the air war, whatever I would find, would be difficult. So many minds had already been made up about Israel, about the destruction it caused, and about the failure of airpower. I was well aware that although a truth-telling effort was first needed to sort out what had actually happened from the false images and propaganda, I also was mindful that images of bomb damage and enumerations of a relentless effort could also end up conveying exactly the opposite of the actual meaning. The task at hand then is to tell the story of an airpower-dominated campaign, one that was deeply flawed in its design yet impressive in its efficiency, without being either pedantically faultfinding or apologetic about a modern instrument that is still little understood, even by its practitioners.

Overview

In the summer of 2006, Israel fought an intense 34-day war with Hezbollah, the first sustained modern air campaign conducted by a country other than the United States. As soon as the fighting was underway, many were declaring airpower oversold and inadequate. Commentators clamored for more-decisive ground action, asserting that only ground forces could defeat Hezbollah rocket fire, that the ground alternative would produce a "cleaner" and less tangled outcome, bring about different political realities, reduce civilian casualties and damage, and make greater gains in the battle for hearts and minds. When the Israeli government itself seemingly expressed its frustration with airpower and escalated ground fighting well into the second week of the campaign, airpower critics felt vindicated. The anti-airpower view could not help but further echo with all of the stark images of Beirut, with the cavalcade of statistics of civilian deaths and destruction, and with the fact that barely six months after

the initial Hezbollah incursion across the Israeli border, the air force general who served as the chief of staff of the IDF—the first air force officer ever to command Israel’s military—was gone. What is more, despite all of the claimed Israeli military accomplishments, Hezbollah was declared as strong as ever. The war itself has thus been labeled a failure by many, and many of the war’s ills are blamed on airpower.

It is precisely because the 2006 Israel-Hezbollah war was not fought by the United States, because it was an intense and technologically complex irregular conflict fought between a nation-state and a terrorist organization, and because it involved difficult questions of civilian protection and modern information warfare that the US Air Force and the US military should examine it closely. Analysis that does not assume fault or fall prey to biased anti-Israeli, anti-airpower, or antiwar assumptions opens the way for better military doctrine and plans; for a deeper understanding of the issues associated with so-called “effects based operations” and the battle for hearts and minds; for the achievement of maximized civilian protections; and, dare I say, even for better military command and political direction and expectations in the future.

Last September—barely a month after Israel and Hezbollah implemented a UN-brokered cease-fire—I arrived at Beirut International Airport as military advisor to a UN fact-finding mission. Having previously been involved in postwar evaluations of air campaigns in Afghanistan, Iraq, the former Yugoslavia, and even in Lebanon, I was fully prepared to find much to be desired in the conventional narrative of damage and destruction, as well as much to criticize in the claims of military achievement and/or failure. Lebanon did not disappoint.

On the one hand, I arrived on a regularly scheduled airline at the ultramodern Beirut International Airport, took a taxi to a five-star hotel, and hooked up to a high-speed Internet connection. Here in the heart of Lebanon’s capital, the “destroyed” airport was already back in operation; the electric power grid—reportedly also bombed—was operating as it had been prewar; everyone seemed permanently attached to their cell phones, habitually talking and texting: the city was abuzz with life. It was immediately clear, at least to me, that Israel had exercised some degree of discrimination: right or wrong, it had made choices of what to bomb and what not to bomb.

Yet, just a short drive from Beirut’s swank downtown was the utter ruin of *dahiye*—the southern Shi’a neighborhoods of mostly illegal apartment

blocks, once home to hundreds of thousands of Lebanon's poorest, and the center for Hezbollah. Here is how one observer described the area midwar: "Block after block of extraordinary canyons of devastation . . . multi-storey [*sic*] tenements collapsed or eviscerated, their domestic interiors spilled in mountainous waves of rubble across the streets."¹ I saw the same: well over 100 high-rise buildings completely destroyed and a similar number badly damaged and burned. Irrespective of the causes of the conflict and the military justification or lack thereof for Israel to attack each individual building, Beirut's southern suburbs suffered a level of damage unmatched by any other example of bombing in the precision era. In southern Lebanon, hundreds of towns and villages and thousands upon thousands of homes showed similar levels of severe destruction. The frontline villages that were fought over nearest the border were the most devastated, and dozens of bridges and miles of roads were damaged and destroyed. The picture in Beirut and the south, and the dominant international narrative of Israel's wholesale destruction of Lebanon's infrastructure and economy—of rampant civilian casualties, of hundreds upon hundreds of schools, mosques, hospitals, and factories destroyed and of unexploded ordnance littering the countryside—suggests excess, indiscriminate bombing, and intentional and malicious destruction.

But is any of the evidence true; and death and damage compared to what? Virtually absent from this picture for many in the international community and the Arab world is Hezbollah, an organization that managed to fire over 4,000 rockets and projectiles at 160 Israeli settlements, towns, and cities (and over 1,000 powerful antitank missiles inside Lebanon!), mounting an organized and capable defense against what would eventually be 30,000 Israeli troops fighting in some 16 enclaves in the south. Despite Israeli efforts, Hezbollah rocket fire was never subdued, and the organization's military operations were never fully suppressed, demonstrating just how prepared Hezbollah was and how entrenched the fighting force was in the country's civilian fabric. And yet, when human rights organizations and much of the international community showed up or commented, they seemed to act as if the force Israel was battling was nonexistent. As for the critique of airpower, the connotation was that somehow a full-fledged ground war with the same mission against this same tricky and dug-in force would have been both more successful and less destructive.

The level of destruction in southern Beirut and south Lebanon certainly suggests a very different kind of campaign waged by Israel. Israel chose to go to war over the kidnapping of two Israeli soldiers, seemingly choosing as well to disregard the central American tenet of precision—that fewer weapons and less physical destruction can achieve desired effects with far less “collateral” damage, human and political. But Israel is also a country that pursued its war from a different political reality. The United States may have conducted a half-dozen air campaigns in the precision era, but it has never had to fight an enemy on its borders, nor has it had to make the tough decision of exacting as much damage as possible on a mortal enemy regardless of the political consequences.

None of this is to excuse any actual Israeli excesses. Israel’s military strategy was indeed deeply flawed. Israel bombed too much and bombed the wrong targets, falling back upon cookie-cutter conventional targeting in attacking traditional military objects. Individual elements of each target group might have been justified, but Israel also undertook an intentionally punishing and destructive air campaign against the people and government of Lebanon. All the while, the IDF seemed to satisfy itself with conventional measures of “success”—accumulating statistics of Hezbollah launchers and rockets hit, dead fighters, and destroyed Hezbollah “structures.” Israel may have satisfied itself that every building and structure it was attacking in Beirut and every civilian home in the south was associated with Hezbollah, but the cumulative impact was far less impressive militarily and far more politically damaging than the planners and commanders projected.

As the conflict escalated, destruction in Beirut and the south accumulated, as did overall damage to the Lebanese civilian infrastructure. There is no question that the IDF was intensely focused on destroying rockets and launch sites, killing Hezbollah fighters, destroying weapons storage, bunkers, and other strictly military objects. But hundreds if not thousands of civilian buildings were also promiscuously labeled Hezbollah “structures” and attacked in the name of degrading or destroying that organization. The argument we hear from the Israeli government is that it had no alternative—that these otherwise civilian homes and buildings had to be attacked because of the nature of Hezbollah and its use of Lebanese society as a “shield.”

If this is true, is there a different strategy Israel could have pursued against Hezbollah to achieve its objectives with less political fallout? In

order to answer that question one needs to be honest about the actual record of Israeli attacks, not some hyperbolic description of destruction. Lebanon was not systematically destroyed, an objective certainly within Israel's reach.

Gross destruction was visited upon Hezbollah's stronghold in south Beirut, but that destruction was still undertaken with precision, as is evidenced by its coexistence with vast untouched areas of the city. Israel indeed made decisions and took steps to limit civilian harm. Israel made a decision at an extremely high political level not to attack Lebanon's electric power grid (as it had done in 1996) and not to attack any water-related targets. It did not "attack" hospitals, or schools, or mosques, or Lebanon's "refinery," though all were reported as such. Israel indeed showed initial restraint on the ground, a decision that could and should be interpreted not as some airpower daydream or a lack in "understanding" ground war but as a desire to avoid a protracted battle, an occupation, and all of the subsequent killing and destruction that would follow. As part of its pre-planned retaliation for the kidnapping, Israel also did not initially attack any targets in south Beirut, even Hezbollah leadership, despite the fact that a surprise attack might have achieved decapitation.

As the war quickly escalated, Israel never realized much benefit from these sound decisions. Frustrated by its inability to stem rocket attacks on Israeli soil, Israel expanded its attacks on civilian targets to exact punishment on Hezbollah supporters and the government and people of Lebanon. Israel doggedly explained its action by reiterating again and again that Hezbollah fighters were "terrorists" and that Hezbollah was ultimately responsible for any damage caused, but outside of a small circle of supporters, Israel increasingly was objectified as the aggressor.

Hezbollah's resilience demonstrated that the organization had deep roots and enormous popular support in Lebanon, and yet Israeli political and military leaders seemed to believe their own propaganda that Hezbollah had no Lebanese support, was weak, and was losing. From this stemmed a wholly conventional measure of success that Israel seemed content to apply: Hezbollah's six years of investment and effort to build up infrastructure in Lebanon were gone, the routes of Syrian and Iranian resupply were disrupted, 70–80 percent of the long-range and 50 percent of the short-range launchers were destroyed, half of the stock of actual rockets and missiles was destroyed or expended, and more than 600 Hezbollah fighters were dead. Destruction of the organization's support infrastruc-

ture—roads and bridges, fuel, communications, media, even financial institutions—accumulated. The facts were all valid, but Israel just could not make a holistic analysis of the military benefit relative to the human (and political) impact.

Some commentators and observers seem content to chalk up any conceded failures on Israel's part to intelligence failure: Hezbollah, they say, possessed sophisticated Syrian and Iranian arms, "surprising" and abundant technology, and was not some lightly armed militia but a professional fighting force. This argument seems particularly weak: first, because Israeli intelligence knew enough about what Hezbollah was and possessed; and second, because it was Israel's very stubbornness in seeing Hezbollah as a conventional military force—armed with 12,000 rockets and missiles and other weapons—that influenced pursuit of a conventional military strategy in the first place. If anything, the IDF would have preferred an even more-conventional battle. After all, that is what the IDF is best at and would provide the clearest outcome.

As Hezbollah's secretary-general Hassan Nasrallah said in a televised address during the conflict though, "We are not a regular army and we will not fight like a regular army." Hezbollah was morally and politically strengthened in the face of the Israeli military—with celebrations rippling through the Arab world that Israel was thwarted (just as the United States has been in Iraq)—because the only damage done to the organization indeed was "conventional." Here is the narrative that is heard from the Arab "street" and from huge segments of the Arab population that extend far beyond the Hezbollah faithful: Israel and the United States use their technology and their conventional might to bomb the Arab people back to the stone age, showing no regard for civilians, destroying homes and mosques and schools and bridges and factories and even gas stations. Given that "they" don't have F-16s to fight with, they are reduced to using rockets or airliners or suicide bombers and improvised explosive devices (IED) to strike back.

Hezbollah may not have defeated Israel on the battlefield, but the organization won the hearts and minds of many. Hezbollah's own narrative as it moves forward is that it survived the best that Israel could throw at it, that only a few of its fighters were killed (in other words, that only Lebanese civilians were hit), and that only it stood up to Israel and was victorious.

Lining the Beirut International Airport access road just days after the cease-fire were a freshly erected set of billboards. "Divine Victory," they

proclaim, with various photographs of uniformed and civilian-clad Hezbollah fighters loading Soviet-style Katyusha rocket launchers. “A Victory from God,” alternating signs exclaim over the faces of Lebanese children and celebrating civilians. In all, the billboard displays along Lebanon’s main roads develop three key themes: Hezbollah courage, Lebanon’s resilience, and defeat of the “invincible” Israeli army.

So Israel is stuck, as is the United States, with the conundrum of modern conventional military power in the fight against terrorism. Both countries intone that they are fighting a “new” enemy, but neither seems able to modify its conventional military approach and get away from fighting in old ways. Israel and the United States can win all of the conventional battles and accumulate statistical successes to no political avail and to future detriment. It is clear that an alternative is needed, but the dominant alternative postulated by pundits and experts is that Israel just needed to be more aggressive on the ground in gaining control of southern Lebanon to stem the firing of rockets. Israel, this line of argument goes, placed too much faith on airpower, failing to launch a broad enough ground offensive until it was too late. Blinded by the false promise of winning “on the cheap,” Israel failed to learn the US lesson from Iraq: committing too few troops. What is more, Israel “lost” the information war, outsmarted by a clever and duplicitous practitioner of political theater that ensured Israel had to inflict civilian harm in order to fight it.

Many in the Israeli government and IDF defend the war’s achievements, however seemingly modest militarily—damage to Hezbollah’s fighting capability, expulsion of the organization from its sanctuary on the Israeli border, a message of Israeli willingness to use great force in response to provocations—as not only notable but also better than the alternatives of either inaction or even greater overreaction and a quagmire. Airpower of course facilitated these achievements by uniquely allowing rapid “strategic” attacks and disengagement. None of this is to say that how airpower was applied was particularly imaginative or forward looking, but there is no question that airpower was the tool and the enabler.

More troops and a massive ground invasion would indeed have produced a different outcome, but the notion that somehow that effort would have resulted in a more decisive victory over Hezbollah, fewer political problems, and less destruction and fewer civilian casualties, has no basis in historical example or logic. There has to have been a different course to follow. Airpower as it was employed is not that alternative, but lost

in the shuffle of the unresolved ground versus air rivalry and the intense emotional and political issues regarding Israel and Hezbollah are the most interesting questions as to how the most modern and flexible instrument could best be employed in the future.

The Road to War

At around 9:05 a.m. on Wednesday, 12 July 2006, Hezbollah initiated “True Promise,” a meticulously planned and coordinated operation involving rocket, antitank missile, mortar, and sniper fire intended to mask a raid to kidnap Israeli soldiers. Katyusha rockets and mortars rained down on IDF border posts and villages at multiple points from Zar’it to Dovev in the central sector. Within sight of the hilltop village of Aiyt a-Shab across from border mark 105, about 20 Hezbollah fighters attacked a pair of patrolling Division 91 Humvees. One Humvee was destroyed by a long-range antitank missile, and three soldiers were killed; a second Humvee was hit with rocket-propelled grenade (RPG) fire, and two reserve soldiers—Ehud Goldwasser and Eldad Regev—were captured.²

The incursion precipitated Israeli emergency “Hannibal” procedures and retaliatory strikes on Hezbollah border observation posts and positions opposite Zar’it. An exchange of fire between the IDF and Hezbollah gunners then ensued across much of the entire Blue Line, with heavy bombardment also occurring in the areas around Bint Jbeil and in the Shebaa Farms area of Golan Heights. For the first time in six years, IDF conventional forces entered southern Lebanon in pursuit of the kidnapers.³ The platoon-sized force met with intense small arms and antitank missile fire, walking into an obvious trap: a pre-positioned explosive just over the border was detonated under a pursuing Israeli Merkava tank at about 11 a.m., killing four additional soldiers.⁴

Within an hour of the initial clash, Al-Manar, the Hezbollah-owned and run television network in Beirut, was reporting that the Islamic Resistance, the military arm of Hezbollah, had captured two Israeli soldiers and that Israeli artillery was “pounding” the fringes of Aiyt a-Shab, nearby Ramiya, and Yaroun.⁵ At 10 a.m., Hezbollah secretary-general Sayyed Hassan Nasrallah held a rare press conference, confirming that his organization had indeed kidnapped the Israeli soldiers, saying that they were in a “safe and far” away place and that they would only be released as part of a swap.⁶ “No military operation will return them,” Nasrallah said. “The prisoners

will not be returned except through one way: indirect negotiations and a trade.”⁷ Congratulating the Hezbollah kidnappers and fighters, Nasrallah said the organization had so far exercised “self restraint” in its operations. “We have no intention to escalate or to start a war. But if the enemy seeks that they will pay a price,” he said. “We are ready for a confrontation to the extreme.” Nasrallah also called on all Lebanese to come together in a “national front” against Israel.⁸ As news of the kidnapping emerged, Hezbollah supporters took to the streets of south Beirut, firing guns in the air and setting off firecrackers to celebrate. “God is great . . . our prisoners will be out soon,” the media reported them chanting.⁹

At about 10:20 a.m., Israel initiated a wave of preplanned air strikes in southern Lebanon,¹⁰ initially attacking 17 Hezbollah command posts and bases, as well as three southern bridges over the Litani River.¹¹ Lebanese government “security” officials commented on the Israeli strikes at about 11:00 a.m., saying that bridges, roads, and Hezbollah positions had been attacked. The Israeli objective, these Lebanese officials opined, was “to block any escape route for the guerrillas,” which might then prevent an Israeli rescue mission.¹²

At midday, Israeli prime minister Ehud Olmert appeared before the news media as part of a photo opportunity associated with a previously scheduled meeting with the Japanese prime minister, who was in Jerusalem. Olmert called the attacks and kidnapping “an act of war” and held the Lebanese government responsible for Hezbollah’s behavior. “I want to make it clear, the events of this morning are not a terror attack but an act by a sovereign state which attacked the state of Israel without reason or provocation,” Olmert said. He vowed that the Israeli response would be “restrained, but very, very, very painful.”¹³ Israeli TV also reported that IDF chief of staff Lt Gen Dan Halutz warned that the Israeli assault would “turn back the clock in Lebanon by 20 years” if the soldiers were not returned.¹⁴

Lebanese prime minister Fouad Siniora phoned UN secretary-general Kofi Annan soon after the kidnappings to ask that the UN “prevent Israeli aggression” against Lebanon. Meeting in Rome with Italian premier Romano Prodi, Annan publicly called for the immediate release of the kidnapped Israeli soldiers and condemned Israel’s retaliation. “I condemn without reservations the attack in southern Lebanon, and demand that Israeli troops be released immediately,” he said.¹⁵

Siniora also summoned an aide to Nasrallah to his office in downtown Beirut to ask what Hezbollah had done. Just a few days earlier Nasrallah

had assured the Lebanese government that it would be a calm summer and a successful tourist season, and that Hezbollah rockets “deterred” Israel from attacking. “It will calm down in 24 to 48 hours,” the aide assured the Lebanese prime minister.¹⁶ “The government was not aware of and does not take responsibility for, nor endorse what happened on the international border,” Siniora told the news media.¹⁷

At about 6 p.m., Maj Gen Udi Adam, commander of the Northern Command responsible for Lebanon, spoke to the press from his headquarters in northern Israel. He said Israel was responding “very forcefully in the air, sea, and land, and is readying for a mighty response later. . . . As to where to attack, everything is legitimate . . . not just southern Lebanon and Hezbollah’s border positions.”¹⁸

Adam reiterated Olmert’s and Halutz’s warnings that Israel held the Lebanese government accountable. “The moment a state is responsible, we will realize and demand this responsibility,” Adam said. Though he demurred in elaborating about what he called “wide ranging and comprehensive” IDF operational plans, he said that the Israeli objective would be to destroy Hezbollah’s military capabilities and push the organization “away from the border.”¹⁹

While Adam was speaking, the Israeli Security Cabinet was convening in emergency session. Olmert says he was in contact with Halutz and Minister of Defense Amir Peretz from the first moments of the border incident. “I have issued instructions to the security establishment,” he said; “I have coordinated with Defense Minister Peretz, naturally.”²⁰ Now the Cabinet was formally meeting to hear briefings from IDF representatives and the general staff and receive the recommendations of Halutz as to possible responses. After the meeting, a Cabinet communiqué was issued, which read in part:

Israel views the sovereign Lebanese Government as responsible for the action that originated on its soil and for the return of the abducted soldiers to Israel. Israel demands that the Lebanese Government implement UN Security Council Resolution #1559. . . .

Israel will respond aggressively and harshly to those who carried out, and are responsible for, today’s action, and will work to foil actions and efforts directed against it. . . . Israel must respond with the necessary severity to this act of aggression and it will indeed do so.²¹

Throughout the afternoon and night of 12 July, Hezbollah and Israel traded rocket, artillery, mortar, and small arms fire over the border. On

the ground, Hezbollah attempted two additional infiltrations in the central sector, and fighters armed with RPG launchers and antitank missiles battled IDF rescuers who crossed into Lebanon. Hezbollah rocket attacks continued into Israel against border villages and the area of Mount Meron, and snipers fired on the Israeli town of Rosh Hanikra on the coast.²² An Israeli army spokesman said it was an “unprecedented attack” in terms of the number of Israeli villages targeted and the depth of the rocket strikes.²³ In the first 24 hours, Hezbollah launched some 60 rockets into Israel, as well as dozens of mortars and other projectiles.

Israel maintained its own artillery and rocket fire against Hezbollah positions throughout the day and night, attacking targets along the entire breadth of the Lebanese border from Naqoura on the coast to Kfar Shouba, less than 10 kilometers (km) from the Syrian border. A second wave of air strikes occurred in the afternoon, and another 40 targets were attacked by air and naval fire overnight. In the first 24 hours, the IDF had carried out over 100 “aerial” attacks, the IDF said.²⁴ An Israeli army statement said that more than 30 targets associated with preventing the transfer of the abducted soldiers, including the main bridges over the Litani and Zahrani rivers and the north-south coastal road, had been attacked.²⁵ A senior IDF officer said that dozens of Katyusha launching sites were attacked, with approximately 40 destroyed. The IDF also said that approximately 30 Hezbollah fighters were killed in the first 24 hours.²⁶

When Major General Adam appeared before the news media barely nine hours into the operation on 12 July, he was prepared to give a glowing assessment. “We are in control,” the combatant commander said of Israeli forces. “We have destroyed *all* the Hezbollah outposts in the border, and we are now continuing to operate in depth, mainly from sea and air.”²⁷ (emphasis added) Given the official pronouncement of Adam and others, Israeli media followed with its own glowing assessment. With reports of an attack on Beirut’s international airport, Israeli radio reported early Thursday that “southern Lebanon *has been cut off* from the rest of the country after our aircraft, helicopters, and naval vessels bombed dozens of targets, including about 20 bridges, the roads of southern Lebanon and other parts of the country.”²⁸ (emphasis added) “*All* the bridges” between the Israeli border and Beirut on the coastal road had been bombed, Voice of Israel said.²⁹ (emphasis added)

Certainly the most visible and symbolic Israeli target in the first 24 hours—and the northernmost strike—was Beirut’s Rafiq Hariri Interna-

tional Airport. At 4 a.m. on 13 July, aircraft placed four 2,000 pound laser-guided bombs with BLU-109 hard-target warheads on runway intersections to shut down airport operations.³⁰ Though some Israeli spokesmen described the airport as a transportation node in the same category with bridges, justifying the attack as impeding export of the abducted soldiers, an Israeli army spokesman said that “the reason for the attack is that the airport is used as a central hub for the transfer of weapons and supplies to the Hezbollah terror organization.”³¹ Acting Lebanese minister of the interior Ahmed Fatfat opined that the airport attack had nothing to do with Hezbollah but was instead an attack against Lebanon’s “economic interests,” especially its summer tourism industry.³²

By the afternoon of 13 July, the Beirut airport attack was the only significant strike the IDF had mounted beyond southern Lebanon and, other than attacks on bridges, it was the only “civilian infrastructure” attack. The wire services, nevertheless, were describing significant destruction to the country of Lebanon overall and saying that as many as 52 civilians had been killed in air strikes, with another 100 wounded.³³ “They are killing civilians because they cannot kill Hezbollah militants,” a Lebanese man was quoted as saying. “They want to bring us back to the occupation era. . . . Will the world continue to watch them kill children without doing anything?”³⁴

Before it was clear how many civilians indeed had been killed or under what circumstances, an Israeli spokeswoman expressed regret, saying the IDF had “no intention whatsoever to harm innocent civilians.”³⁵ Israeli Air Force (IAF) chief Brig Gen Amir Eshel explained, “Hezbollah has established its infrastructure in the heart of a peaceful civilian population and our challenge is to attempt to target this infrastructure accurately while exerting the greatest efforts to avoid harming non-combatants.”³⁶

Hezbollah had fired rockets and artillery into Israel and was continuing to do so, it had kidnapped Israeli soldiers, and it was exacting Israeli civilian deaths and injuries. But barely 24 hours into the crisis—despite Israel’s actual attacks and despite Israeli statements of regret and caution—France, Russia, Italy, and others condemned Israel’s actions as “disproportionate.”³⁷ Kofi Annan’s personal representative to Lebanon, Gier Pederson, said he was “highly alarmed by Israel’s *heavy attacks* and escalation.”³⁸ (emphasis added) Amnesty International called for a cessation of Israeli attacks on Lebanese civilian infrastructure, citing the supposed attack on Lebanese electrical power.³⁹ The Arab League called an emergency meeting.

Could it be the criticism had nothing to do with Israel's actual conduct? After all, though there were news media reports that Israel had struck an electrical power plant in southern Lebanon, there was actually no such attack on the first day.⁴⁰ Media reporting about attacks into Beirut were also exaggerated and erroneous. At first, the wire services quoted Al-Jazeera television as saying that 26 civilians had been killed in the Beirut airport attack.⁴¹ Later reports that same day mentioned three dead at the airport; evidently Al-Jazeera was reporting a total of 26 civilians killed overall in southern Lebanon.⁴² Lebanese police later told Agence France-Presse (AFP), the French news agency, that no civilians had indeed been killed in the attack on the airport, but that 27 Lebanese civilians, "including 10 children," had been killed overall.⁴³

Disproportionate or not, Hezbollah responsibility or not, the conflict clearly had a different character than the dozens of other Israeli-Hezbollah incidents that had occurred since the Israeli withdrawal from southern Lebanon in 2000—escalation was in the air. On the morning of 13 July, the leading Israeli newspaper *Haaretz* reported that Israel would target Hezbollah in Beirut in response to any attacks on northern Israeli cities; Hezbollah responded by threatening to attack the northern port city of Haifa if Israel attacked Beirut.⁴⁴ A senior IDF officer was quoted on Israeli radio as threatening "grave harm to Lebanese civilian infrastructures . . . linked to Hezbollah" if the organization escalated its attacks.⁴⁵ General Halutz, who the previous day warned that Israeli bombing would turn back the Lebanese clock 20 years, said on 13 July that "nothing" was safe in the country.⁴⁶ "It is impossible that we will continue to be in a situation where in Beirut people are sleeping peacefully, while people in northern Israel are sitting in bomb shelters," Silvan Shalom, a Likud member of the Knesset said.⁴⁷

As evening approached on Thursday, 13 July, Hezbollah rockets hit the Stella Maris neighborhood of Haifa, the furthest south that rockets fired from Lebanon had ever hit.⁴⁸ Hezbollah initially denied that it had attacked Haifa, hoping, it seems, to save the escalatory move if Israel indeed attacked Hezbollah targets in south Beirut. "Bombing Haifa would be linked to any bombing of Beirut and its suburbs," Sheikh Naim Qassem, Hezbollah deputy secretary-general, told Al-Jazeera television. "It would be . . . a reaction and not preemptive."⁴⁹ Hezbollah secretary-general Nasrallah, for his part, claimed to Al-Jazeera television that it was not Hezbollah which escalated:

We were not the ones who began the war or the ones who launched a large-scale war. . . . It is not from the first moment after we captured two soldiers that we began to shell Nahariya, Haifa, Tiberias and Zefat and launched war. No. Even in advancing, the Israelis were much faster than us. We were patient in the hope that things would stop at this point because we don't want to take our country to war.⁵⁰

Israel's ambassador to the United States, Daniel Ayalon, immediately called the attack on Haifa "a major, major escalation."⁵¹ Soon after the strike, four Israeli attack helicopters were back at the international airport, shooting air-to-surface missiles at airport fuel tanks, setting them on fire and lighting up the Beirut night sky. Defense Minister Peretz said that Israel would now "break" Hezbollah.⁵²

Before the Haifa attack, though, Israel had already dropped leaflets over south Beirut warning residents to stay away from Hezbollah strongholds:

To the Inhabitants of Lebanon

Due to the terrorist activities carried out by Hezbollah which destroys [*sic*] the effort to find a brighter future for Lebanon[,] [t]he Israeli Army will continue its work within Lebanon for as long as it deems fit to protect the citizens of the State of Israel.

For your own safety and because we do not wish to cause any more civilian deaths, you are advised to avoid all places frequented by Hezbollah.

You should know that the continuation of terrorist activities against the State of Israel will be considered a double-edged sword for you and Lebanon.

The State of Israel⁵³

Now as part of its escalation for Hezbollah attacks on Haifa, the IDF implemented what its spokesmen labeled "deterrence" strikes; reaching into south Beirut to attack buildings in the main Hezbollah headquarters complex, the home of Secretary-General Nasrallah, and the headquarters of Hezbollah's Al-Manar television. But as part of its punishment strategy against the government of Lebanon, Israeli aircraft also attacked two Lebanese military airfields—Qulayaat near Tripoli and Riyaq in the north Bekaa Valley—a reminder as well to the Lebanese military to stay out of the fight after it fired on Israeli aircraft overflying Sidon.⁵⁴ A handful of television and radio transmission and relay stations were also added to the target list.

Probably everything that there is to be said about the Israeli-Hezbollah war of 2006 can be traced to these first 48 hours: each side firmly believing that it was taking the action necessary for its security and standing;

each convinced that it could control its actions, its opponent's reactions, and the effects; and each believing as well that it could precisely signal its intentions. The two sides implemented their "plans," suggesting deliberation and a thorough understanding of their objectives and of the enemy. Yet neither side really could anticipate how the conflict would unfold, nor did they properly assess the capabilities or actions of the other. Neither side really believed that there was ultimately a "military" solution that they could pursue to achieve victory over the other, yet they succumbed to the inexorable drag of war.

From the very beginning of the 2006 conflict, information warfare and propaganda played a prominent role. The "IDF will continue to operate decisively to defend the citizens of the State of Israel against terror originating from Lebanese territory and to bring about conditions leading to the safe return of the two kidnapped soldiers," the Israeli government stated and then reiterated every day in its press releases. The responsibility for any civilian deaths rests with Hezbollah, IDF spokesmen repeated again and again. The news media were filled with stories—many demonstrably false—about Israeli conspiracies and misdeeds, about "illegal" weapons being used in Lebanon, about massive civilian casualties and infrastructure damage, and yet it seemed all the Israeli information apparatus could do in response was to mechanically make statements that left Hezbollah firmly in control of the information battlefield.

Obviously any conflict involving Israel and an Islamic terrorist organization is guaranteed to incite deep passions, but even the most dispassionate of observers could not help being buffeted and confused as the war of narratives unfolded. Even under the best of circumstances, an air campaign is difficult to describe, and the narrative lacks the kind of personal storytelling and frontline heroics so characteristic of ground war. Add to all of this the excessive secrecy practiced by the IDF regarding the basic facts of its actions, and even of its military units, and no wonder the international community and much of the news media jumped to conclusions. Though Israel and Hezbollah (as well as Lebanon) were fighting a ferocious battle for hearts and minds, what was crystal clear from 12 July was that even in the transparent Internet era, even in a conflict involving two countries with wide-open news environments, there was not only an absence of consensus about what was really going on, but there was also widespread misunderstanding.

The War

On 12 July, when Israel decided to respond to the Hezbollah attacks, incursion, and kidnapping with a major military operation, the government of Ehud Olmert laid out a set of four objectives for the IDF to guide its operations:

- Return of the two abducted soldiers;
- Imposition of a new order in Lebanon, particularly in southern Lebanon;
- The strengthening of Israel's deterrent against external attack; and
- The crushing of Hezbollah.

The Cabinet stated in its first communiqué that Israel would “respond aggressively and harshly to those who carried out, and are responsible for, today's action.”⁵⁵ Though some in the Cabinet favored broader objectives, including attacking Lebanese infrastructure beyond bridges and roads, attacking Syria directly, and seeking the elimination of Hezbollah as an explicit objective of the campaign, military sources say that the IDF argued that these were not feasible objectives.⁵⁶

The first three objectives were as much political as military in nature. Though Israel subsequently undertook military and special operations to rescue its soldiers, its long history with kidnappings and back-channel negotiations with Hezbollah consigned the problem to the political and clandestine world. The second objective sought Lebanese implementation of UNSCR (United Nations Security Council Resolution) 1559, which demanded that the central government exercise sovereignty over southern Lebanon and disband independent militias.⁵⁷ Israel hoped to end Hezbollah's status as a permissible state within a state, but it was again as much a political objective as a military one. At least initially, the Israeli government did not pursue ground operations to physically eject the organization from the border area or to disarm it.⁵⁸ The third objective was political as well. Some felt that Israel needed to project a stronger image against Hezbollah and the Palestinians after the 2000 withdrawal from southern Lebanon and the 2005 withdrawal from Gaza to prevent future attacks. Others felt that Israel's deterrence target was actually Iran (and the buildup of Iran's so-called Western Command in Lebanon),⁵⁹ while others saw the target as both Iran and Syria.

The final objective of crushing Hezbollah was the purely military one, though what exactly the government asked the IDF to do—weaken, cripple, annihilate—represents potentially different approaches and levels of effort along a spectrum of destruction. According to IDF and Israeli government officials, the operation did have specific quantitative military objectives: x percent of weapons destroyed, x percent of long-range launchers depleted, x percent of Hezbollah leadership and fighters killed, and so forth, but the percentages are unknown. “I said from day one, and all the way through, that the purpose was not to destroy Hizbullah [*sic*],” Prime Minister Olmert later responded to war critics who claimed that the government ordered the IDF to indeed “destroy” the organization:

The purpose was not to destroy every launcher. The ambition was not to catch every Hizbullah [*sic*] fighter. The purpose was to impose a new order on Lebanon that would remove to a large degree . . . the threat to the state of Israel that was built up over the last 6 or 7 years to an intolerable degree. I never said we would destroy Hizbullah [*sic*]. What I said was that we had to create a new order on the basis of implementation of [UNSCR] 1559, and the deployment of the Lebanese army in the south of Lebanon, and so on. How to do it? Not by catching every launcher.⁶⁰

General Halutz told the Cabinet that the IDF would require nine to 10 weeks to carry out the assigned objectives: two weeks focused on counter battery fire to silence Hezbollah rockets and mortars followed by a six-to-eight-week ground operation. Maj Gen Benjamin Gantz, the ground forces commander, said he thought that the IDF “would take control of the area in a week and a half, during which time enemy launch capability would be dramatically degraded. Between week two and week nine, we wouldn’t have faced significant warfare on our home front, which would have allowed us to focus on eradicating Hezbollah’s efforts to threaten Israel. It also would have provided a week or two for a proper disengagement and return to the border area.”⁶¹

“We said that Katyushas would fall on Israel up to the last day,” Halutz said of the Cabinet discussions. “Our assessment was that the fighting would stop earlier because of international intervention.”⁶²

The Cabinet instructed the IDF to impose a complete air, sea, and land blockade on Lebanon and approved a series of targets for attack. Authority was given to attack Hezbollah headquarters, bases, and tactical positions in the south, and the Cabinet approved limited attacks on Beirut’s international airport and Lebanese transportation to put pressure on the government of Lebanon and weaken Hezbollah’s popular support base.⁶³

Prime Minister Olmert was reportedly skeptical of attacks on infrastructure beyond bridges, fearing that such a move would have the opposite effect and unite the Lebanese around Hezbollah.⁶⁴ What exact instructions the Cabinet initially gave to the IDF regarding attacks on Hezbollah's headquarters and support base in south Beirut is unclear. Israeli ministers would later say that the Cabinet agreed that there would be no attacks on electrical power or water-related installations, a departure from previous Israeli practice in its 1996 campaign. This was a decision taken specifically to spare the civilian population the secondary effects of the loss of modern life support systems and avoid the negative political and international fallout associated with "attacks" on civilians.⁶⁵

However Hezbollah was to be crushed, the mission had to be accomplished in such a way that it would not undermine larger political and strategic objectives for Israel—not just to buy additional security and increase international support for its existence and right to self-defense, but also to weaken Hezbollah's status in Lebanon and in the Arab world. Finally, as a component of a global "war" against terrorism, Israel's actions against Hezbollah sought concrete and physical achievements that were not at the same time undermined by a sense of victimization or immoral defeat that merely strengthened a future enemy.

Attack and Escalation

Though Israel was well aware of Hezbollah's buildup in southern Lebanon and even forecast that a military confrontation with Hezbollah was inevitable given the organization's acquisition of a more and more effective offensive arsenal, when Hezbollah attacked on 12 July, the operation seemed to have come as a surprise.⁶⁶ The day before Hezbollah's incursion, IDF chief Lt Gen Dan Halutz reportedly made a reservation to vacation with his family in northern Israel.⁶⁷

On the day of the attack, Prime Minister Olmert maintained a regular schedule, ironically meeting with the family of another kidnapped soldier, Galid Shalit, and then meeting with Japanese prime minister Junichiro Koizumi.⁶⁸

At the local military level, three days before the Hezbollah attack, Maj Gen Udi Adam, commander of the IDF's Northern Command, lowered the alert level along the northern border. Israeli intelligence provided his command "no early warning, period," Adam says.⁶⁹ The commander of Division 91, the higher command for the ambushed patrol, also says Is-

raeli intelligence failed to provide him or his staff with early warning as to Hezbollah's plans to carry out the 12 July raid.⁷⁰ An official postwar review of the kidnapping incident concluded that the ambushed patrol operated as if it were "out on a trip rather than on an operative mission." The reserve unit evidently had not been given any proper orders in its entire three weeks of border duty.⁷¹

An Israeli air force F-16 pilot further describes his surprise on 12 July when, upon returning to base at about 10 a.m. from a routine training flight, he saw aircraft taking off to implement emergency procedures: "By the time I get out of the plane, I hear the roar of the heavy takeoffs . . . and then another roar, and another. There is something different in the sound of a combat takeoff with a full load of bombs: the takeoff is long, the planes are heavy, the afterburner is used longer—not the light and quick training takeoffs. Something is definitely happening."⁷²

And though the 12 July operation was meticulously planned by Hezbollah, Hassan Nasrallah himself claims that he was surprised at the Israeli government's response to the kidnapping, indicating more Israeli improvisation than preparation.⁷³ After all, there had been other incidents along the border during 2005 and 2006, and as General Adam reminded the media on 12 July, the IDF had deflected them or dealt with them without escalating.⁷⁴

Hezbollah political leaders and operatives in Beirut were also unaware of the operation, making no changes to their day-to-day security procedures or movements. Even after the kidnapping, Hezbollah political leaders had no sense or warning that Israel would respond as they did, particularly in Beirut.⁷⁵ The Lebanese government was unaware of Hezbollah's actions on 12 July and went about its business without any advance warning of the Hezbollah attack.⁷⁶ And once the attack unfolded, the Beirut government was vociferous in its position that it was neither responsible for Hezbollah's actions nor did it endorse them.⁷⁷

On the second day of the conflict, after Hezbollah attacked Haifa, Israel escalated its attacks to include the runways at Rafiq Hariri International Airport and Hezbollah's Al-Manar television station in Beirut.⁷⁸ After Israel returned to the Beirut airport to attack fuel storage tanks on the evening of 13 July, it also attacked fuel storage tanks at the Jiyeh electric power plant south of the capital. Finally, on the evening of 13 July, the IAF began attacks on Hezbollah headquarters and "security command" targets in the southern Shi'a neighborhoods of Beirut, beginning its campaign to eradicate the

Hezbollah-dominated areas of the Lebanese capital. “You wanted an open war, and we are heading for an open war,” Hassan Nasrallah responded to the south Beirut attacks. “We are ready for it.” Nasrallah also vowed that Israeli military action would never win the release of the two soldiers, saying that the two IDF soldiers had been moved to a safe place far from the border. Nasrallah further threatened that if Israel escalated, Hezbollah would respond strongly and that Israel “should be ready for surprises.”

By the end of the first 24 hours, Hezbollah had fired 125 Katyushas into Israel. By 14 July, the number reached 185. On 14 July, 103 Hezbollah rockets were fired, followed by 100 on the 15th. Israel might have thought that its air attacks were having an impact when the number of rocket firings declined to 43 on 16 July and 92 on the 17th, but by 18 July, the number was again above 100, and there was little evidence, as Hezbollah mobilized in the south, that air attacks alone were having the effect of stemming the rocket fire into Israel. What is more, after the initial attack on Haifa on 13 July, Hezbollah continued its long-range attacks on Israeli cities, attacking Tiberias (25 miles from the Lebanese border) on 15 July, and the Galilee town of Afula (31 miles south of the Lebanese border) on 17 July. Afula was the furthest south a rocket fired from Lebanon had ever landed inside Israel. Hezbollah also hit Haifa on 16 July with an Iranian Fajr rocket, killing eight railroad workers and injuring another 50. Haifa and Tiberias were hit again on 17 July. Despite extensive Israeli bombing, Hezbollah had managed to fire more than 500 rockets in the first seven days.

Israel’s initial ground operations against Hezbollah were limited to a halfhearted rescue attempt and commando and reconnaissance missions. By the end of the third day, IDF ground forces had crossed the border at a number of points from Ras al-Naqoura along the coast, all the way to al-Majidiyah north of the Golan Heights in the west, but these were all temporary incursions. Israeli armored vehicles entered approximately one km inside Lebanese territory, demolishing Hezbollah outposts, setting up cement block barriers, and exchanging fire with Hezbollah forces.⁷⁹

It was not until 18 July—six days after the kidnapping—that Israeli ground forces made a major assault deep into Lebanese territory, initially focused on Maroun a-Ras as a stepping stone to its assault on the Hezbollah center at Bint Jbeil just to its north.

Reality Sets In

Hezbollah forces in southern Lebanon were placed on full alert within minutes of the 12 July kidnapping as the organization implemented plans to continue rocket attacks into Israel and defend its forces in Lebanon. Hezbollah had carefully studied its terrain and the supporting transportation and communication systems, as well as Israeli capabilities and deployments, allowing it to sustain rocket fire under attack, concentrate forces at critical points, prepare optimum defenses, and streamline its logistical needs. From the border, where it was able to predict where Israel would cross, to the approaches into villages, where it was able to lay mines and explosives, to villages themselves, where it was able to establish firing positions and set booby traps, Hezbollah mounted an effective and economical defense.⁸⁰

As the IDF attacked or made advances on the ground, most Hezbollah fighters withdrew from fixed border posts and prepared fire sites to positions closer to or inside villages and towns, where they either made use of prepared infrastructure or commandeered new civilian assets.⁸¹ Organizationally, Hezbollah was also prepared to mount a stubborn “vener” defense—wide and thin—and its forces and supplies were widely dispersed and organized to reinforce the weakest sectors. In just one village around Naqoura, a small fishing village on the Mediterranean coast just two km from the Israeli border, Hezbollah deployed 10–15 squads that could shuttle amongst various prepared defenses. In the rocky, uninhabited hillside running along the border nearby, Hezbollah had closed off civilian traffic for over three years, building a “formidable network of tunnels, bunkers and weapons depots” where fighters were able to survive over the month of pounding by Israeli aircraft and artillery.⁸²

In the built-up areas and inside the villages, Hezbollah had the advantages of civilian cover against attack, time to prepare for any Israeli advance, and an urban setting from which to ambush IDF forces and conduct guerrilla warfare once Israeli ground forces advanced. Hezbollah prepared hundreds of firing positions on the outskirts of villages and later booby-trapped civilian houses and buildings where it assumed the IDF would operate.⁸³ As IDF forces approached Lebanese villages, they were met by both gunfire and antitank fire from inside civilian houses. Hezbollah also used short-range rockets and mortars to fire on IDF forces maneuvering in Lebanese territory and on IDF concentrations that had occupied southern villages.⁸⁴

Hezbollah rocket-firing positions were predominantly set up along paved roads, enabling easy access from weapon stockpiles located inside the villages.⁸⁵ Even under Israeli air attack—and as ground forces advanced into Lebanon—Hezbollah managed to conduct extensive logistical activities, making use of the pre-positioned materiel as well as moving arms to supply the fighters, albeit in small quantities, which were all highly needed.⁸⁶ For instance, antitank missiles were moved around the south inside backpacks carried by Hezbollah operatives dressed in civilian clothes, often riding motorcycles and carrying white flags, according to Israeli intelligence.⁸⁷ Israeli intelligence also alleged that Hezbollah used ambulances and other rescue vehicles for cover in its movements. According to the IDF:

During the war, Hezbollah made use of vehicles designed for humanitarian purposes, knowing they would not be targeted by the IDF. Thus, there were numerous incidents reported of the use of ambulances, Red Cross vehicles, and the Lebanese government's civilian defense vehicles to transfer operatives, arms and ammunition, and equipment. In other incidents, Hezbollah's civilian vehicles closely followed Red Cross and other humanitarian convoys to minimize risk.⁸⁸

When the Israeli ground offensive finally began in earnest on 19 July, Israeli forces proceeded into Lebanon, mostly taking to the roads, moving slowly, and controlling territory only in a piecemeal fashion in southern Lebanon; Hezbollah seemed far more ready than the IDF.⁸⁹ With no established front and no clear line of separation between forces, the IDF faced fire—particularly deadly antitank fire—from all directions. IDF forces took refuge in abandoned Lebanese homes and buildings, becoming prey to the capable multikilometer-range antitank missiles. In the village of Debel, west of Bint Jbeil, Hezbollah fired on civilian structures that IDF reservists were using for shelter during daylight hours; nine Israeli soldiers from a demolition company were killed, and 31 more were wounded.⁹⁰ Antitank squads armed with advanced Kornet missiles were mobilized in the Froun-Ghandouriyeh area at the end of the war.⁹¹ Division 162, which fought the battle of Wadi Saluki at the end of the war near these villages, suffered considerable casualties when it was ambushed by Hezbollah antitank squads.⁹²

Israeli tanks entered the area southeast of Bint Jbeil and Maroun a-Ras on 19 July, and the first major ground battle raged at Maroun a-Ras through 24 July.⁹³ Hezbollah was able to properly read that Bint Jbeil was the ultimate target, and it reinforced the town with “dozens of skilled

operatives as well as Special Force operatives in sabotage, anti-tank, and antiaircraft warfare,” according to Israeli intelligence.⁹⁴ Beginning on 19 July, ground exchanges also took place along the coast and around Mar-waheen, where IDF tanks and bulldozers moved into Lebanese territory (though they retreated back into Israel on 21 July).⁹⁵ On 24 July, the frustrating and deadly battle of Bint Jbeil began, and on 30 July, the battle of Aiyt a-Shab opened a central front. The ground war slowly and rather ineffectively took on its own momentum, not relevant to stemming the continuing rocket attacks on Israel, while also building up domestic expectations of eventual success.

Israel would mount three more offensives before the end: opening a fourth eastern axis at Kfar Kila on 30 July, undertaking an expansion of ground operations after a Cabinet directive on 1 August, and then mounting a final drive for the Litani River after yet another Cabinet directive on 9 August. Thousands of IDF reservists were eventually called up for operations in southern Lebanon. By 9 August, IDF forces had made their way to Debel in the central sector (4.5 km from the border) and near Qantara in the east (7 km from the border). In the last battle to take place as the IDF drove for the Litani before the cease-fire, ground forces made it 12 km into Lebanon to Ghandouriyeh, a village astride the Wadi Saluki. When the cease-fire went into effect, the IDF occupied 16 pockets/sectors in southern Lebanon.⁹⁶

The final Cabinet decision, nevertheless, came well after an internationally brokered cease-fire was already looming. The government of Lebanon pledged on 27 July that it would once again extend its authority over its territory in an effort to ensure that there would not be any weapons or military other than that of the Lebanese state. A seven-point Lebanese plan to expand the United Nations Interim Force in Lebanon (UNIFIL) and extend Lebanese army control into the south was introduced on 7 August. On 11 August, the UN Security Council unanimously approved UNSCR 1701 (2006), which additionally called for disarmament of Hezbollah. Lebanon, Hezbollah, and Israel all accepted the terms, and the cease-fire was to take effect at 8:00 a.m. local (0500 GMT) on 14 August.⁹⁷

As the cease-fire loomed, both Israel and Hezbollah accelerated their strikes to cause maximum damage to the other. Hezbollah increased its rate of long-range rocket fire, culminating with 220 rockets launched into Israel on 13 August, its second highest daily total. Israel picked up the pace of its operations, expanding air attacks and nearly tripling the number of

troops in southern Lebanon in the final few days of the conflict. Israel, by all evidence, also employed a significant number of air- and ground-delivered cluster bombs in the last 72 hours of the campaign, ostensibly to stem the rocket attacks and cause havoc to movements should the cease-fire collapse, but also seemingly content to leave hundreds of thousands of unexploded bomblets to impede postwar civilian movements and recovery in the south—a reality that it should have anticipated given the record of US cluster bomb use and the IDF's selection of older weapons with higher dud rates.

From the beginning of the 2006 war, it is clear that the Israeli government was intent not to become embroiled in another ground occupation in southern Lebanon. Though there was hope on the part of many that a strong and extensive bombing campaign would eradicate Hezbollah's long-range threat to Israel, when Hezbollah showed itself to be more skilled and resilient than Israel anticipated, domestic pressures inside Israel mounted for an expansion of ground operations.

Some say that the ground forces themselves dawdled in anticipation that the 2006 war indeed could be won from the air, seeking to avoid the casualties that guerrilla operations and occupation would entail.⁹⁸ When ground forces were finally ordered into Lebanon on 19 July, there seemed to be great confusion with regard to missions and objectives; units were advanced and withdrawn, and even in the case of forces that went on the offensive, little momentum was maintained. The armor-heavy, road-bound conventional force proved unable to keep in contact with its Hezbollah opponents. Many observers claim that these missteps were due to political and high command indecision; that ground forces were "frozen in place," making them more vulnerable. But others point to a lack of preparedness and training, and a focus away from conventional combat (and the northern theater) by the IDF itself after the 2000 withdrawal.⁹⁹ The need to account for itself can be seen in its final deployments inside Lebanon. When the war was over, the IDF was deployed mainly in a series of hilltop locations, lacking control of surrounding territory and even lacking control of the terrain between forward positions and the Israeli border.¹⁰⁰

The conventional description of the 2006 Hezbollah war is that having an IAF officer in charge of the General Staff¹⁰¹ and naïve reliance on air-power by an inexperienced government resulted in Israeli failure.¹⁰² The IAF, the arm of the Israeli military that had once destroyed whole air forces in a few days, not only proved unable to stop Hezbollah rocket strikes but

even to do enough damage to prevent Hezbollah's rapid recovery. The failure is not airpower's alone; Israeli intelligence and ground forces equally focused on stopping the rocket fire, but clearly Israel overestimated the purity of its intelligence and the efficacy of its strategy and technology and underestimated Hezbollah's skill and resilience.¹⁰³

Airpower against Terrorism

Every modern war has a complicated and controversial narrative. Desert Storm was the affirmation of modern technology and precision airpower. Yet to some, the first Gulf War proved that "strategic" bombing and coercion do not work and that ground forces were ultimately needed to exact Iraq's capitulation, to "occupy territory," and to finish the job. The 1999 war over Kosovo was the first war "won" by airpower alone. But only, some argue, if one ignores that the threat of a ground war convinced Slobodan Milosevic to give in to NATO's demands. Operation Enduring Freedom (OEF) in Afghanistan defied predictions of a Soviet-style quagmire and affirmed a new era where a small force leveraging special operations and airpower defeated a much larger enemy. That is, as long as one limits OEF to the time frame of the 2001 "victory" and ignores the long war that followed. Finally, Gulf War Two—Operation Iraqi Freedom—is and was the repudiation of "shock and awe" and the one that got away because of a dubious expectation of instant and uncomplicated victory, because of too few resources employed à la Afghanistan, and because of deficient postwar planning.¹⁰⁴

The 2006 Israel-Hezbollah conflict hardly disappoints in competing narratives. Hezbollah labels its endurance and survival in the face of Israeli attack a "Divine Victory," stating that it is rearming and more powerful than ever—militarily and politically in Lebanese internal politics and in the overall Arab world.¹⁰⁵ The Israeli government of Prime Minister Ehud Olmert equally asserts that the 2006 war was one of that country's greatest military and political victories ever. Olmert argues that Israel set Hezbollah back in armaments and capabilities, pushed it from the northern border, achieved a cease-fire to suit Israel's political interests, and established a geopolitical reordering in Lebanon and the "moderate" Arab world.¹⁰⁶

Airpower in the Israeli narrative is labeled "brilliant." Supporters claim that some huge percentage of Hezbollah's medium- and long-range capabilities were destroyed and point out that the IAF was able to exact a heavy toll with almost zero losses. Even General Gantz, the IDF senior

army officer, says airpower “set an historic precedent for its ability to identify launchers, pinpoint their exact location and very quickly close the sensor-to-shooter loop.”¹⁰⁷ Others argue that airpower, through its rapid response, strategic reach, and punishing might, also strengthened Israel’s deterrent capability, demonstrating the heavy price that Israel could impose on any attacker.¹⁰⁸

Arguing that Israel achieved what it set forth to achieve in the 2006 war, however, is a little like saying that the operation was successful but the patient died. The performance of airpower may have been superb, and the IDF may have indeed accomplished difficult internal transformational tasks under fire,¹⁰⁹ but in terms of Israel’s objectives, the kidnapped Israeli soldiers were neither rescued nor released; Hezbollah rocket fire was never suppressed, not even its long-range fire; the extent of Israeli attacks evoked widespread condemnation; and Israeli ground forces were badly shaken and bogged down by a well-equipped and capable foe. Even General Halutz labels the war results “mediocre”¹¹⁰ and admits that the IDF did not achieve its internal objectives.¹¹¹ Great damage may have been done to Hezbollah by Israeli bombardment—air, sea, and land—but nothing Israel did was able to undermine its basic coherence or deplete its forces. Barely a month after the cease-fire, Nasrallah claimed that Hezbollah still had at least 20,000 rockets.¹¹² In March 2007 Israeli intelligence concluded that “south Lebanon has not become a demilitarized zone free of terrorist organizations and their weapons, Hezbollah as an organization was not disarmed, the process of rehabilitating its military strength continues, and an effective embargo on smuggling arms from Syria to Lebanon has not been imposed.”¹¹³ The US Defense Intelligence Agency agreed, opining less than six months after the cease-fire, “The Israel Defense Forces (IDF) damaged some of Hezbollah’s arsenal and many of its buildings, but Hezbollah’s leadership remains unscathed and probably has already replenished its weapons stockpiles with Iranian and Syrian assistance.”¹¹⁴ No wonder then that General Gantz reflects the view of many philosophical Israelis that despite achievements claimed and actual, the overall conflict with Hezbollah will not be solved “without another round of battle.”¹¹⁵

Outside of the Israeli government and General Staff, and certainly outside Israel, Hezbollah’s postwar survival and strength alongside Lebanon’s seeming destruction drives observers to almost universal agreement that the 2006 war was illegally executed by Israel with meager, if not counterproductive, military justification and extreme humanitarian effects. In August, Amnesty

International opined that Israel pursued a policy of “deliberate destruction of Lebanese civilian infrastructure,” including commitment of “war crimes.”¹¹⁶ In September, Human Rights Watch said Israel made a “systematic failure to distinguish between combatants and civilians,” questioning why so many civilian vehicles and homes had been targeted “despite the absence of military justification.”¹¹⁷ In November, the UN Commission of Inquiry cited “a significant pattern of excessive, indiscriminate and disproportionate use of force by IDF against Lebanese civilians and civilian objects,”¹¹⁸ concluding that Israel’s conduct demonstrated “an overall lack of respect for the cardinal principles regulating the conduct of armed conflict, most notably distinction, proportionality and precaution.”¹¹⁹

Given Israel’s reliance on high technology and precision-guided munitions, given its decisions to spare Lebanon’s direct life support infrastructure, given its specific targeting decisions and internal process of legal review, given Israel’s view of itself as law abiding and morally based, given the nature of the enemy’s explicit and intentional use of civil society as a shield and its own commission of war crimes in attacking Israeli civilians, no wonder this narrative of Israeli illegality is deeply frustrating to many. Some even argue that Israel’s problem is one of perceptions: that the 2006 war was itself a war of competing narratives and Israel failed to “win” the public relations battle because of poor information warfare techniques or practices, because it had to “tell the truth” while Hezbollah told lies, or that Israel “lost” because of media biases.¹²⁰

But perhaps part of the problem is in the nature and narrative of air warfare itself. Here are the facts regarding the 2006 war: 1,200 or more Lebanese civilian deaths, 4,000 civilians injured; destruction of as many as 130,000 homes and apartments in over 130 villages and towns; the destruction of hundreds of Beirut buildings and the leveling of entire city blocks; 100 bridges downed; two dozen gas stations destroyed; and airports and ports attacked. Absent a decent explanation of what all these numbers really mean, or taken out of context or twisted to ignore Israel’s care or where Hezbollah deployed its forces or how it fought, these isolated data points become any propagandist’s tool. Whether it is the IDF’s mechanically reciting how many “structures” it attacked daily and how many sorties it flew, or the news media’s reporting civilian casualties and damage on the ground in the absence of Israel’s compelling description of its dominant military effort (airpower), the context of Israel’s choices, decision making, actions, and overall strategy was lost. Even Israeli com-

mentary promoting the IDF's achievements built upon the same mind-numbing narrative of meaningless destruction. For example, here is how one Israeli journalist describes the war's outcome:

Two-thirds of Lebanon lies in ruins. Major infrastructure was knocked out of commission. Bases, depots, headquarters, banks and financial institutions were destroyed. Most of Hezbollah's command centers were reduced to rubble. A million people were driven from their homes, and a quarter of a million scrambled to leave the country. With statistics like these, Nasrallah needs a healthy dose ofchutzpah to get up in front of a crowd of hundreds of thousands and pass himself off as a hero and a savior.¹²¹

Two-thirds of Lebanon? No wonder that the UN Commission of Inquiry "saw" a country "destroyed" when it visited Lebanon, stating that "housing, water facilities, schools, medical facilities, numerous mosques and churches, TV and radio transmission stations, historical, archaeological and cultural sites . . . suffered *massive damage* . . . [and that] agriculture and tourism were particularly hit."¹²² (emphasis added)

No wonder as well that the commission could write that Lebanon's economic infrastructure was intentionally targeted, suggesting not only an Israeli intent to ruin Lebanon but also that everything that was damaged, no matter how slight or peripheral, was actually destroyed and intentionally so.¹²³ No wonder because in spite of Israel's soothing reassurances of compliance with the Geneva protocols and legality in focusing on the difficult Hezbollah military target, Israeli leaders also issued threats suggesting a concealed agenda and intention to destroy Lebanon as a country. "Lebanon is responsible and Lebanon will bear the consequences" of Hezbollah's actions, Prime Minister Olmert declared on the first day of the campaign.¹²⁴ Halutz warned that the Israeli assault would "turn back the clock in Lebanon by 20 years."¹²⁵ A high-ranking IAF officer told reporters that Halutz had ordered the military to destroy 10 buildings in Beirut in retaliation to every rocket strike on Haifa.¹²⁶

Israel signaled from the very beginning of Operation Change of Direction—through repeated attacks on bridges, in attacks on Lebanon's airport and ports, in attacking "buildings" in south Beirut for 23 of 34 days of the conflict—that it had a secondary agenda, as Prime Minister Olmert referred to it, of exerting political "leverage" over Lebanon.¹²⁷ Israel on the one hand was carefully calibrating its attacks and seeking to minimize civilian harm in limited war to achieve not just military results but long-term political benefits, while on the other hand it was simultaneously

pursuing an intentionally punishing and destructive political campaign. Clearly Israel wanted to bring the war “home” to the Lebanese government and the people of Beirut. If Israel lost the war of narratives, it was not solely because Hezbollah hid among civilians, or even because Israel had a clumsy information campaign.

How then can we understand the Lebanon war beyond Israel’s dual objectives, beyond its clumsiness, beyond Hezbollah’s perfidy, and beyond an international community that was indeed predisposed toward being stacked up against Israel? “Nations fight in the real world, not in ones where they can set the rules for war or perceptual standards,” Anthony Cordesman writes.¹²⁸

In the real world, Israel fought against an opponent that not only defied the standards of conventional war making, but one that also proved to be sophisticated and prepared. Israel on some level understood Hezbollah’s nature—something had to have sunk in with the selection of all of those civilian buildings and homes as Hezbollah assets—and yet Israel pursued a strategy to defeat Hezbollah in an old-fashioned and wrong-headed way.

Ultimately then, the characterization of the 2006 war as one of narratives or one big misunderstanding not only disobligates Israel of self-examination for its actual failures of conception and implementation, but also diverts Israel (and by extension, the United States) from the pressing task of getting beyond conventional military approaches to find a more effective way to “fight” terrorism.

An honest assessment of where Israel went wrong necessitates acknowledging from the beginning that the Israeli political leadership had many valid reasons to want to use the airpower tools associated with strategic attack and long-range strike. First, an “airpower”-centric approach best countered the enemy’s strengths, particularly given how embedded Hezbollah was in Lebanese civil society and how much it had built up its basic capabilities north of the Litani River (and thus out of the reach of Israeli ground forces). Second, the existing conception of conventional ground combat, attrition, and occupation prevalent in the IDF was out of synch with either the nature of the enemy or the level of commitment Israeli leaders (and, in their view, the Israeli public) were willing to make. Third, the “airpower” decision was made easier by default due to the stark reality that the ground forces were not prepared to mount the very campaign they were promoting.

In his January 2007 letter of resignation to Prime Minister Olmert, Lt Gen Dan Halutz wrote: “One of the main things the [internal] investiga-

tions [of the 2006 war] taught us was that the military establishment is profoundly affected by long term processes. At times the effect is unnoticed and we are unaware of its full consequences. These processes affect the Israeli society in general and the capabilities of the military in particular.”¹²⁹ What were those long-term processes Halutz referred to, and how had they influenced Israeli society, governmental decision making, and IDF strategy? Some were organizational and priorities based, focusing more effort on Israel’s hunt for high-value terrorist targets and the small-unit actions associated with the Palestinian challenges in the West Bank and Gaza, with the ground forces division, particularly in the north, receiving fewer resources.¹³⁰ Others were doctrinal and conceptual, particularly in the embrace of an “effects based” operations mind-set and what IDF theorists call “cognitive” objectives rather than conventional approaches of attrition and “destroying” the enemy. Embrace of these long-term processes, some say, led to the “aerial arrogance” on the part of many senior IDF officers.¹³¹

To equate an effects-based approach with aerial arrogance is a mistake. But if one accepts that Israel had indeed adopted a new effects-based doctrine since 2000 to fight terrorism, the most important questions are how did the IDF implement it, and did it make the right choices? Like the United States in the global war on terrorism, Israeli leaders argue that they are fighting a “new” and different kind of enemy—a state within a state, a well-armed terrorist/guerrilla force shielded by the civilian population—and yet when the time for action came in 2006, the IDF designed the most conventional of wars built from the assumption that Hezbollah could be defeated, even eliminated, through some level of attrition and destruction. Somewhere in its recesses, Israel knew that Hezbollah was well armed and that it was a force with deep roots and enormous popular support in southern Lebanon, but it constantly intoned for domestic consumption and external propaganda that Hezbollah was weak, had no Lebanese support, and was and would lose. In short, Israel just could not seem to get away from seeing and then fighting Hezbollah in old ways.

In the last 24 hours of the campaign before the 14 August cease-fire, when the IAF attacked eight gas stations in southern Lebanon, pure punishment took over from an effects-based conception.¹³² In the case of the gas stations and the blistering use of thousands of submunitions-dispensing weapons—“cluster bombs”—in the final 72 hours, some in Israel no doubt thought that Hezbollah’s regeneration could be delayed and undermined;

or if the cease-fire collapsed, that the cumulative effect of depletion of resources and obstacles to movement would accrue military advantages for the IDF. The same kind of thinking must have been applied to the accumulation of destroyed roads and bridges throughout northern Lebanon and the Bekaa Valley, that somehow movements and imports were being slowed or even stopped, and that the IDF was directly benefiting.

This is the most conventional of approaches, with each individual object justified for its legality and military importance, almost divorced from the overall campaign objective and desired strategic outcome. The assumption is that if the target is meticulously attacked, if the unit is defeated, if another combatant is killed, a connection will magically and naturally be made to the broader political objectives of the war. Now Israeli political leaders and military types hail their success in eliminating Hezbollah's long-range rocket threat, killing more than 600 Hezbollah fighters, setting back Hezbollah's military capabilities and infrastructure "two years," dislodging Hezbollah from southern Lebanon, demonstrating that Israel is no longer hesitant to respond to individual provocations, and creating a high "price tag" for anyone who attacks Israel.

Though Hezbollah never "defeated" Israel on the battlefield, because of Israel's bifurcated and destructive campaign waged against the people and the nation of Lebanon, Hezbollah was able to win the hearts and minds of many. Hezbollah's narrative was not only that Lebanese civilians were hit while only a few of its fighters were killed, but also that it survived the best that Israel could throw at it, and that it (and not Beirut and not Arab governments) uniquely stood up to Israel and achieved victory. Hezbollah's political strengthening in the face of massive Israeli attack—and the celebrations that rippled through the Arab world that Israel was thwarted (just as the United States has been in Iraq)—came from their "conventional" defeat.

When Israel made the decision to respond to Hezbollah on 12 July, beyond the immediate attacks on the border observation posts and nearby Hezbollah fighters and activity, beyond even attacks on the fixed rocket infrastructure and the 34-minute operation against Hezbollah's long-range force (whatever it was), did anyone in the IDF or Israeli leadership really believe their own articulation that attacks on a handful of Litani and Zahrani River bridges—even key choke points—would prevent Hezbollah from evacuating or hiding the kidnapped soldiers? When Israel bombed Beirut International Airport in the first 24 hours with the public

justification that it was further impeding the export of the soldiers or the import of military materiel, did anyone in the command structure really believe that? Did anyone in the IDF or the Israeli government think that the public or the international community would believe and accept these contrived explanations?

A fair, non-antiairpower assessment of the 2006 Israel-Hezbollah war is that Israel, in recognition of limited war and fully aware of its pessimistic prospects in the local and international struggle for hearts and minds, chose to just destroy as much as it could in as short a period of time as possible to at least set Hezbollah back and buy time for its security. Since security is the ultimate objective, at some point someone should have said “enough already” for what was being achieved. Someone should have said—and even recognized—that the accumulation of buildings and bridges and destroyed homes in villages in the south and in the Bekaa after awhile begins to tell a different story; and that story, if it is not the intent, is one to be avoided. That narrative is that “we” in the West, with all of our intelligence, drones, and technological and conventional military superiority, do everything with complete clarity and intention; that we are the ones who have no regard for civil society or civilians, particularly Muslims: we even destroy their gas stations. Given that “they” do not have F-16s to attack us with, they are reduced to using rockets, suicide bombers, or airliners to strike back.

There is an argument to be made that probably no matter what Israel bombed, the Jewish state would have still provoked the hatred of Hezbollah sympathizers and much of the Lebanese and Arab world. But Israel could also have, and should have, pursued a different approach. Since Israel was not going to “win” the war against Hezbollah through statistical accumulation and was not going to fight Hezbollah to some total war victory, an equal objective had to be not only creating a stronger deterrent but also creating some degree of sympathy and support for Israel’s right to defend itself, even if in doing so, Israel had to attack another nation. Had Israel limited its attacks as much as possible to Hezbollah, concentrated its resources on military forces and capabilities in the south and the Bekaa, pursued a campaign more attuned to emerging humanitarian and international norms regarding the use of cluster bombs, shown greater transparency in describing what it was doing and the intelligence basis for its decisions, and fought a war truer to its own political intuition about what was possible in the first place with an organization like Hezbollah, Israel might

have—might have—bought more time and engendered greater sympathy and support, thus not only achieving more militarily, but also in the fundamental long-term objective of counterterrorism: not creating even more enemies tomorrow.

The “failure” of airpower in the 2006 Israel-Hezbollah war was not that it promised too much or that it did not deliver. It was instead a grand strategic failure in the application of force against terrorism. The war demonstrates and justifies a clear transition needed from conventional to wholly new modes of warfare required for counterterrorism in the future. Israel certainly failed to “tell” its airpower (and military) story effectively. But to do so would have demanded that it understood the very flexibility of the instrument it was wielding, and that it had reconciled its competing impulses to seek “effects” while also exacting punishment that undermined its very agility. The failure then is that an instrument that has now been proven uniquely discriminating and reliable remains not only haunted by decades-old images of inhumanity, but also that it is held back and undermined by archaic and false conceptions of ground war preeminence and gentleness. 

Notes

1. Richard Pendlebury, “Southern Beirut: Only the Dead or Insane Remain,” *Daily Mail* (UK), 20 July 2006. See also Nick Parker, “Tour of Terror in Beirut,” *Sun* (UK), 26 July 2006, <http://www.thesun.co.uk/article/0.,2.2006330627.00.html>: “The scale of the destruction was truly incredible. One bunker buster seemed to have wiped out at least four nine storey [*sic*] blocks in a high rise estate. Only a 30 ft. pile of smoking concrete remained with layers of furniture, clothes and belongings squashed between collapsed floors. The muffled shriek of a car alarm in a vehicle entombed beneath the smashed buildings filled the smoky air. Curtains waved like banners from the broken windows of blackened apartment blocks as far as the eye could see.”

2. United Nations, “Report of the Secretary-General on the United Nations Interim Force in Lebanon (For the period from 21 January 2006 to 18 July 2006),” S/2006/560, 21 July 2006; and British Broadcasting Corporation (BBC) Worldwide Monitoring, “Israeli General Says ‘This Is War;’ Pledges ‘Forceful’ Response to Lebanon,” live news conference with Maj Gen Udi Adam, commander of the IDF’s Northern Command, site unknown, on Israeli Channel 2 TV on 12 July, 1512 Greenwich Mean Time (GMT). See also Israeli Ministry of Foreign Affairs (MFA), “IDF Spokesman: Hezbollah Attack on Northern Border and IDF Response,” 12 July 2006, <http://www.mfa.gov.il/MFA/Terrorism+Obstacle+to+Peace/Terrorism+from+Lebanon+Hizbullah/Hizbullah+attack+on+northern+border+and+IDF+response+12-Jul-2006.htm>; IDF, Intelligence and Terrorism Information Center (ITIC) at the Center for Special Studies (CSS), “Hezbollah’s Use of Lebanese Civilians as Human Shields: The Extensive Military Infrastructure Positioned and Hidden in Populated Areas. Part Three: Israel Population Centers

as Targets for Hezbollah Rocket Fire,” November 2006, 150–ff; Grigory Asmolov, “We Are Ready for the Next War,” *Kommersant* (Russia), 9 November 2006, http://www.kommersant.com/p719977/r_527/Israel_Lebanon_Syria_Hizballah/; Yaakov Katz, “Eyeballing different Lebanese at the Kidnapping Site,” *Jerusalem Post*, 10 December 2006, <http://www.jpost.com/servlet/Satellite?cid=1164881865641&pagename=JPost%2FJPArticle%2FShowFull>; Deutsche Presse-Agentur (DPA), “Two Projectiles Fired from Lebanon Land in Northern Israel,” 12 July 2006, 0712 [GMT]; BBC Worldwide Monitoring, “Israel Bombs Lebanese Villages, Hezbollah Shells Targets—TV,” reporting Al-Arabiya TV in Arabic, 12 July 2006, 0718 GMT; Deutsche Presse-Agentur (DPA), “Two Projectiles Fired from Lebanon Land in Northern Israel,” 12 July 2006, 0722 [GMT]; and Reuters (Beirut), “UPDATE 3-Hezbollah Says Seizes Israeli Soldiers in Border Raid (Recasts with Hezbollah Saying Captured Israeli Soldier),” 12 July 2006, 6:32:39 a.m. (0932 GMT).

3. “Fighting on Two Fronts,” *Jerusalem Post*, 13 July 2006, 1.

4. An eighth Israeli soldier was later killed on the ground inside Lebanon in the afternoon. The eight soldiers killed made up the single highest number of Israeli military casualties since the IDF’s offensive in Jenin on 9 April 2002, which left 14 soldiers dead. The Israeli press reported that “dozens” of ground troops entered southwestern Lebanon on 12 July. See also MFA, “IDF Spokesman: Hezbollah Attack on Northern Border and IDF Response.”

5. Associated Press (AP) Beirut, “Hezbollah and Israeli Forces Clash across the Border in Southern Lebanon,” 12 July 2006, 0735 GMT; AP, “Heavy Clashes in Southern Lebanon as Hezbollah TV Announces Capture of Two Israeli Soldiers,” 12 July 2006, 0813 GMT.

6. “Operation True Promise” had as its declared aim obtaining the release of Lebanese and other Arab prisoners held in Israel by exchanging them for captured Israeli soldiers—as “promised” by Nasrallah.

7. A written statement by Hezbollah issued Wednesday morning said: “Implementing our promise to release the Arab prisoners in Israeli jails, our strugglers have captured at 9:05 am (0605 GMT) two Israeli soldiers in southern Lebanon. . . . The two soldiers have already been moved to a safe place.” See also AP (Gaza City), “Nine Palestinians Killed in Israeli Airstrike [*sic*], Hezbollah Claims to Kidnap Two Israeli Soldiers,” 12 July 2006, 0920 GMT; and AP (Beirut), “Hezbollah Captures Two Israeli Soldiers, Sparking Israeli Bombardment in South Lebanon,” 12 July 2006, 1546 GMT.

8. AP (Sam F. Ghattas, Beirut), “Israel Bombs Southern Lebanon after Hezbollah Fighters Snatch 2 Israeli Soldiers,” 12 July 2006, 1948 GMT; and United Press International (UPI), Beirut, “Analysis: Iran, Syria Use Lebanese Militia,” 12 July 2006, 1646 GMT.

9. DPA, “Israeli Troops Enter Lebanon in Hunt after Soldiers,” 12 July 2006, 1050 GMT; and AP (Beirut), “Heavy Clashes in Southern Lebanon as Hezbollah Announces Capture of Two Israeli Soldiers,” 12 July 2006, 1435 GMT.

10. UN, identical letters dated 17 July 2006 from the chargé d’affaires of the Permanent Mission of Lebanon to the United Nations addressed to the secretary-general and the president of the Security Council, A/60/942–S/2006/531, 17 July 2006.

11. IDF, “Attacks on Israel from Lebanese Territory,” Wednesday, 12 July 2006, 1202 GMT, <http://www1.idf.il/DOVER/site/mainpage.asp?sl=EN&id=7&docid=54183.EN>.

12. AP, “Heavy Clashes in Southern Lebanon as Hezbollah TV Announces Capture of Two Israeli Soldiers,” 12 July 2006, 0813 GMT; and Reuters (Beirut), “UPDATE 3—Hezbollah Says Seizes Israeli Soldiers in Border Raid (Recasts with Hezbollah Saying Captured Israeli Soldier),” 12 July 2006, 6:32:39 AM (0932 GMT). Israel confirmed that it was attacking “a number of bridges and roads . . . in order to prevent Hezbollah from transferring the abducted soldiers” and

also targeting “Hezbollah bases”; and MFA, “IDF Spokesman: Hezbollah Attack on Northern Border and IDF Response.”

13. AP (Beirut), “Hezbollah Captures Two Israeli Soldiers, Sparking Israeli Bombardment in South Lebanon,” 12 July 2006, 1546 GMT; and Yaakov Katz, Herb Keinon, and JPost Staff, “Eight IDF Soldiers Killed, 2 Kidnapped on Northern Frontier,” *Jerusalem Post*, 13 July 2006, 1, <http://www.jpost.com/servlet/Satellite?cid=1150885976658&pagename=JPost%2FJPostArticle%2FShowFull>. “Lebanon will bear the consequences of its actions,” Olmert said. AP (Beirut), “Heavy Clashes in Southern Lebanon.” For the text of Olmert’s initial statement, see also <http://www.mfa.gov.il/MFA/Government/Communiques/2006/PM+Olmert+Lebanon+is+responsible+and+will+bear+the+consequences+12-Jul-2006.htm>. Israeli justice minister Haim Ramon said, “The Lebanese government, which allowed Hezbollah to commit an act of war against Israel, will pay a heavy price. The rules of the game have changed;” and Agence France-Presse (AFP) Beirut, “Israel Bombs Beirut Airport, 27 Killed in Raids,” 13 July 2006, 0614 GMT.

14. CBS News, “Israel Bombs Foreign Ministry in Gaza,” 12 July 2006; Donald Macintyre, “Israel Launches Ferocious Assault on Lebanon after Capture of Troops,” *Independent* (United Kingdom [UK]), 13 July 2006, 4; and AP (Beirut), “Heavy Clashes in Southern Lebanon as Hezbollah Announces Capture of Two Israeli Soldiers,” 12 July 2006, 1435 GMT.

15. Ynetnews, “Annan Condemns Israel Attack in Lebanon,” Ynetnews.com, 12 July 2006, 18:03, <http://www.ynetnews.com/Ext/Comp/ArticleLayout/CdaArticlePrintPreview/1,2506,L-3274607,00.html>.

16. Anthony Shadid, “Inside Hezbollah, Big Miscalculations; Militia Leaders Caught Off Guard by Scope of Israel’s Response in War,” *Washington Post*, 8 October 2006, A1.

17. BBC, “Hezbollah Warns Israel over Raids,” 12 July 2006, http://news.bbc.co.uk/1/hi/world/middle_east/5173078.stm. See also AP (Sam F. Ghattas, Beirut), “Israel Bombs Southern Lebanon after Hezbollah Fighters Snatch 2 Israeli Soldiers,” 12 July 2006, 1948 GMT.

18. BBC Worldwide Monitoring, “Israeli General Says ‘This Is War.’”

19. Ibid. See also Nicholas Blandford, Ian MacKinnon, and Stephen Farrell, “How Israel Was Pulled Back into the Peril of Lebanon,” *Times* (London), 13 July 2006, 4.

20. Office of the Prime Minister, transcript, “PM Olmert’s Remarks at His Press Conference with Japanese PM Junichiro Koizum,” 12 July 2006.

21. Israel, Cabinet Communiqué, 12 July 2006, <http://www.mfa.gov.il/MFA/Government/Communiques/2006/Special+Cabinet+Communique+Hizbullah+attack+12-Jul-2006.htm>. See also AP (Ravi Nessman, Jerusalem), “Israeli Troops Raid Lebanon after Islamic Militants Capture Two Soldiers in Cross-Border Raid,” 12 July 2006, 2227 GMT.

22. One Hezbollah fighter was shot and killed trying to infiltrate the IDF’s Oranit outpost, and another was killed trying to infiltrate the Biranit base. AP (Ghattas), “Israel Bombs Southern Lebanon”; “Fighting on Two Fronts,” *Jerusalem Post*, 13 July 2006, 1; and MFA, “IDF Spokesman: Hezbollah Attack on Northern Border and IDF Response.”

23. DPA (Beirut/Tel Aviv), “7TH LEAD: Israel Strikes Beirut Airport, Suburbs; At Least 31 Killed,” 13 July 2006, 1004 GMT.

24. MFA, “IDF Spokesman: Hezbollah Attack on Northern Border and IDF Response.” Lebanese “security officials” also said that a Palestinian base 10 miles south of Beirut was bombed; and Chris McGreal in Jerusalem, “Capture of Soldiers Was ‘Act of War’ Says Israel,” *Guardian* (UK) 13 July 2006, <http://www.guardian.co.uk/israel/Story/0,,1819123,00.html>.

25. According to the author’s research, the bridges attacked on 12 July included the Damour old bridge, south of Beirut; the old and new bridges over the Zahrani, south of Sidon; the coastal Qasimiyeh main bridge, north of Tyre; the coastal Awali and Wadi al-Zaynah bridges, north of Sidon; the Tayr Filsay-al-Zrariyeh bridge, between Tyre and Nabatiyeh; the al-Mahmoudiyeh/

Dimashqiyeh bridge, near Marjeyoun; and the al-Qa'qa'iyah al-Jisr bridge, over the Zahrani River in Nabatiyeh. According to the AP, some bridges were attacked several times to ensure they were destroyed to cut off movement between the south and the rest of the country. AP (Beirut), "Heavy Clashes in Southern Lebanon as Hezbollah Announces Capture of Two Israeli Soldiers," 12 July 2006, 1435 GMT; and AP (Sam F. Ghattas, Beirut), "Israel Bombs Southern Lebanon after Hezbollah Fighters Snatch 2 Israeli Soldiers," 12 July 2006, 1948 GMT.

26. BBC Worldwide Monitoring, "Israeli Officials Vow to Remove Hezbollah from Border," Voice of Israel, Jerusalem, in Hebrew, 13 July 2006, 0905 GMT.

27. BBC Worldwide Monitoring, "Israeli General Says 'This is War.'" See also Blanford et al., "How Israel Was Pulled Back into the Peril of Lebanon."

28. BBC Worldwide Monitoring, "Israel Air Force Bombs Beirut Airport, Isolates South Lebanon [Studio talk between correspondent Miki Gurdus and Ya'aqov Ahime'ir—Live]," 13 July 2006, excerpt from report by Israeli radio on 13 July, 0405 GMT.

29. BBC Worldwide Monitoring, "Israeli Officials Vow to Remove Hezbollah from Border."

30. Information provided to the author by the Lebanese army and by the author's own observations.

31. AFP (Jerusalem), "Israel Bombed Beirut Airport to Halt Hezbollah Arms: Army," 13 July 2006, 0510 GMT.

32. Japan Economic Newswire, "Israeli Bombs Beirut Airport, Imposes Sea, Air Blockade," 13 July 2006, 1116 GMT.

33. For reporting on a variety of numbers, see DPA, "2ND ROUNDUP: Israel Strikes Beirut Airport, Suburbs; Over 40 killed," 13 July 2006, 1438 GMT; AFP (Jihad Siqlawa, Tyre, Lebanon), "Gruesome Scenes after Israeli Air Raids on South Lebanon," 13 July 2006, 1158 GMT; AFP (Beirut), "Israel Strikes Lebanon over Seized Soldiers, Dozens Killed," 13 July 2006, 1133 GMT; and DPA (Beirut/Tel Aviv), "7TH LEAD: Israel Strikes Beirut Airport, Suburbs; At Least 31 Killed," 13 July 2006, 1004 GMT. See also Reuters (Beirut), "Israel Kills 52 Civilians, Including More Than 15 Children, in Lebanon," 13 July 2006, <http://www.dawn.com/2006/07/13/welcome.htm>; and DPA (Beirut/Tel Aviv), "5TH LEAD: Israeli Airstrikes [*sic*] Hit Beirut Airport, Suburbs; 27 Killed," 13 July 2006, 0542 GMT; Reuters, "Chronology—Six Months of Rising Mideast Tensions," 13 July 2006, 09:44:18; *Daily Star* (Lebanon) July War 2006 Timeline, http://www.dailystar.com.lb/July_War06.asp; and BBC News, "Day-by-Day: Lebanon Crisis—Week One," http://news.bbc.co.uk/2/hi/middle_east/5179434.stm. After the initial strikes of 12 July, the news media in Lebanon reported only two Lebanese civilians killed. AP (Jerusalem, Ravi Nessman), "Israeli Cabinet Approves Strikes in Lebanon after Hezbollah Captures Two Soldiers in Raid," 13 July 2006, 0354 GMT.

34. AFP (Jihad Siqlawa, Tyre, Lebanon), "Gruesome Scenes after Israeli Air Raids on South Lebanon," 13 July 2006, 1158 GMT.

35. DPA (Beirut/Tel Aviv), "5TH LEAD: Israeli Airstrikes Hit Beirut Airport."

36. BBC Worldwide Monitoring, "Israeli Officials Vow to Remove Hezbollah from Border."

37. 6 AFP (Beirut), "28 Killed as Israel Pounds Lebanon in Soldier Crisis," 13 July 2006, 0851 GMT; AFP (Beirut), "Israel Strikes Lebanon over Seized Soldiers, Dozens Killed," 13 July 2006, 1133 GMT; and AFP (Beirut), "Dozens Killed as Israel Bombs Lebanon over Seized Soldiers," 13 July 2006, 0203 GMT. "This is a disproportionate response to what has happened and if both sides are going to drive each other into a tight corner then I think that all this will develop in a very dramatic and tragic way," the Russian news agency Interfax quoted Foreign Minister Sergei Lavrov as saying. "We have the impression that this is a disproportionate and dangerous reaction in view of the consequences it could have," Italian foreign minister Massimo D'Alema said.

38. AFP (Beirut), "Dozens Killed as Israel Bombs Lebanon," 13 July 2006, 2258 GMT.
39. Amnesty International, "Israel/Lebanon: End Immediately Attacks against Civilians," press release, 13 July 2006.
40. An electrical power station was reported attacked in Wadi Jilo east of Tyre (See Xinhua News Service, "Israeli Forces, Hizbollah [*sic*] Clash, Two Israeli Soldiers Feared Kidnapped," 12 July 2006; and Bahrain News Agency [Al-Arabiya TV, Dubai, in Arabic], "Two Civilians Killed in South Lebanon," 12 July 2006, 1351 GMT) but there was no such attack.
41. Xinhua General News Service (Beirut), "Update: Israeli Warplanes Bomb Beirut Airport," 13 July 2006, 0301 GMT.
42. BBC Worldwide Monitoring, "Israel Air Force Bombs Beirut Airport." See also BBC Worldwide Monitoring, "(Correction) Israel Bombs Beirut Airport; Twenty-six Lebanese Killed—Al-Jazeera," 13 July 2006, 0420 GMT. Initial reports stated that Al-Jazeera reported 26 killed at the airport. The screen caption actually read: "Al-Jazeera's correspondent: 26 Lebanese civilians were killed and the runway of Beirut Airport was destroyed in an Israeli bombardment."
43. AFP (Beirut), "Israeli Aircraft Bomb Beirut International Airport," 13 July 2006, 0418 GMT; and AP (Sam F. Ghattas, Beirut), "Israel Attacks Beirut International Airport Runways, Airport Closed; Civilians Killed in South Lebanon," 13 July 2006, 0522 GMT.
44. UPI (Jerusalem), "Hezbollah, Israel Trade Bombing Threats," 13 July 2006, 1036 GMT.
45. BBC Worldwide Monitoring, "Israeli Officials Vow to Remove Hezbollah from Border."
46. Stephen Farrell, "Our Aim Is to Win—Nothing Is Safe, Israeli Chiefs Declare," *Times* (UK), 14 July 2006, 1.
47. "Interview with Silvan Shalom, Former Israeli Finance Minister and Member of the Knesset's Subcommittee for Intelligence and Secret Services, Discussing the Need to Act Decisively in Damascus and Beirut Following Hezbollah's Attack on Northern Israel (IBA Reshet Bet Radio, 12:44 (GMT+3)," Federal News Service, 13 July 2006, 0944 GMT.
48. AP (Nahariya, Israel), "Rockets Hit Northern City of Haifa, Causing No Injuries," 13 July 2006, 1740 GMT.
49. AFP (Beirut), "Hezbollah Denies Firing Rockets on Israel's Haifa," 13 July 2006, 1752 GMT.
50. Transcript of interview with Hassan Nasrallah on Al-Jazeera, 20 July 2006.
51. AP (Beirut, Sam F. Ghattas), "Israel Blasts Beirut's Airport as Guerilla Rockets Hit Israel's Third Largest City in Escalating Battle," 13 July 2006, 1943 GMT.
52. DPA, "4TH ROUNDUP: Israel Strikes Beirut Airport, Rockets Land in Haifa," 13 July 2006, 2110 GMT.
53. Information provided by the IDF.
54. AP (Ghattas), "Israel Bombs Southern Lebanon."
55. Israeli MFA, Cabinet Communiqué, 12 July 2006.
56. Background interviews with Israeli government spokesmen and participants, September 2006. The shrewd military observer Anthony Cordesman agrees, writing that the IDF had an "understanding that [Hezbollah] could not be destroyed as a military force and would continue to be a major political actor in Lebanon." Anthony H. Cordesman, "Preliminary 'Lessons' of the Israeli-Hezbollah War," Washington, DC: Center for Strategic and International Studies (CSIS), working draft, 17 August 2006. Lt Gen Dan Halutz, the IDF chief of staff, says that three options were discussed: "We go for Hezbollah alone; we go for Hezbollah and Lebanon; or for Hezbollah, Lebanon and Syria. I believed that we should go for the second option, Hezbollah and Lebanon. I was opposed to the third option: not to attack Syria because of the kidnapping

of the two soldiers." Nahum Barnea and Shimon Schiffer, "What Would Halutz Say," *Yediot Aharonot* (Tel Aviv), 25 August 2006.

57. UNSCR 1559, 2 September 2004. The resolution called for the withdrawal of all remaining foreign forces from Lebanon; the "disbanding and disarmament of all Lebanese and non-Lebanese militias"; and extension of Lebanese government control over southern Lebanon.

58. "We have no intention of permitting Hezbollah to redeploy along the international border in southern Lebanon," Defense Minister Amir Peretz told the Knesset's Foreign Affairs and Defense Committee on 13 July. "I state this unequivocally. The Lebanese Army should operate there and the Lebanese government is the only party that will be allowed to deploy forces along the border. If the Lebanese government refrains from deploying its forces, as is expected from a sovereign government, then we will not allow Hezbollah to deploy along Israel's border fences." BBC Worldwide Monitoring, "Israeli Officials Vow to Remove Hezbollah."

59. Cordesman, "Preliminary 'Lessons,'" 3.

60. "Israel's Olmert Talks on Lebanon War, Iran, Prisoner Swap, Qadima Party Survival," interview with Prime Minister Ehud Olmert in his Jerusalem office by Herb Keinson and David Horowitz, n.d.; and "I Had No Illusions about This Job," *Jerusalem Post*, 29 September 2006.

61. "Interview: Maj Gen Benjamin Gantz, Commander, Israel Defense Forces' Army Headquarters," *Defense News*, August 2006, 38. Some media reports say Halutz told the Cabinet that the IDF would require six to eight weeks, but this is not confirmed by Israeli officials, even those critical of Halutz.

62. Barnea and Schiffer, "What Would Halutz Say."

63. Report by Israel's Channel 10 television; and DPA, "Israel Retaliates with Lebanon Attacks; Gaza Targeted," 13 July 2006, 12:54 a.m. EST.

64. Makovsky and White, "Lessons and Implications," 13.

65. Senior Israeli government official and cabinet member, background interview by author, September 2006.

66. Military intelligence had issued a "strategic warning" in December 2005 predicting Hezbollah operations on the northern border, including the kidnapping of Israeli soldiers and rocket attacks on Haifa. The assessment, according to *Haaretz*, warned that Israel would face a considerable challenge because Hezbollah was a "well-established guerrilla force equipped with advanced anti-tank weapons and well-entrenched in southern Lebanon's nature preserves." Ari Shavit, "Six Months of Failures," *Haaretz*, 17 November 2006.

67. Yaakov Katz, "IDF Report Card," *Jerusalem Post Magazine*. There is, nonetheless, one significant contradiction to this information: claims that Halutz also sold his stock portfolio on 12 July. See Makovsky and White, "Lessons and Implications," 23.

68. Galid Shalit was kidnapped on the Gaza border on 25 June 2006. AP (Jerusalem), "Japan's Koizumi Urges Israel to Show Restraint, Not Seek 'Eye for Eye,'" 12 July 2006, 1146 GMT. "I respect his decision to meet with me at such a time," Koizumi said of Olmert after the meeting. "Israel's crisis management is very solid."

69. BBC Worldwide Monitoring, "Israeli General Says 'This Is War.'"

70. Nir Hasson, "Gal Hirsch: MI Warning Would Have Prevented Soldiers' Abduction," *Haaretz*, 15 November 2006. Though Israeli intelligence may have known more, no specific warning was transmitted to those who needed it. *Haaretz* also reported that Israeli intelligence tipped off Division 91 at 2 a.m. on 12 July that the border fence had been cut and some 20 Hezbollah fighters had infiltrated into Israel. Amir Oren, "Analysis: In Lebanon, Government Hamstrung Troubled Division," *Haaretz*, 15 October 2006, <http://www.haaretz.com/hasen/spages/774974.html>.

71. Hanan Greenberg, "Almog: Kidnappings Could Have Been Avoided," Ynetnews.com, 12 November 2006, <http://www.ynetnews.com/articles/0,7340,L-3327332,00.html>.

72. "In the Cockpit, by MAJOR 'Y,'" *Jerusalem Post*, 18 July 2006, 1524 (updated 19 July 2006, 0819), <http://www.jpost.com/servlet/Satellite?cid=1150886035223&pagename=JPost/JPArticle/ShowFull>.

73. Transcript, interview with Hassan Nasrallah on Al-Jazeera, 20 July 2006; and transcript, interview with Hassan Nasrallah on Lebanese NTV, 27 August 2006.

74. BBC Worldwide Monitoring, "Israeli General Says 'This Is War.'" The kidnapping of three soldiers in 2000, as well as the attempted kidnapping in December 2005, all went unanswered by Israel. Hezbollah was also allowed to maintain outposts on the northern border through July 2006. The turning of the other cheek was referred to in Israel as the "Zimmer Policy": Israel would tolerate Hezbollah as long as the *zimmers* (rooms) and hotels in the North were full. Katz, "IDF Report Card."

75. Shadid, "Inside Hezbollah," A1.

76. In mid-2005, UNIFIL commander Maj Gen Alain Pellegrini was reportedly told by a senior IDF officer during a meeting in Jerusalem that if Hezbollah staged another kidnapping, the Israelis would "burn Beirut." Pellegrini says he relayed the warning to the Lebanese government. See Nicholas Blanford, "Deconstructing Hizbullah's Surprise Military Prowess," *Jane's Intelligence Review* 18, no. 11 (November 2006): 20–27.

77. The Lebanese prime minister stated on 15 July that "the Lebanese government announced from the first instance when the events broke, that it had no prior knowledge of what happened. Nor did it endorse the operation carried out by Hezbollah, which led to the abduction of the two Israeli soldiers." Address to the Lebanese people by Prime Minister Fouad Siniora, 15 July 2006.

78. Two Lebanese military airfields were also attacked. A handful of television and radio transmission and relay stations in southern Lebanon and the Bekaa Valley were also attacked, but not in any methodical way.

79. UNIFIL press release PR02, 18 July 2006.

80. Shadid, "Inside Hezbollah," A1; and IDF, ITIC/CSS, pt. 1, 46.

81. Ibid.

82. Blanford, "Hizbullah [*sic*] and the IDF."

83. IDF, ITIC/CSS, pt. 1, 49.

84. Ibid., 50.

85. Ibid.

86. IDF, ITIC/CSS, pt. 2, 79.

87. Ibid., 88.

88. IDF, ITIC/CSS, pt. 1, 45.

89. Along some parts of the border, for instance, IDF forces mounted temporary ground incursions through 20 July, withdrawing to Israel by nightfall. On 19 July UNIFIL reported, "Two IDF ground incursions inside Lebanese territory were reported today. In the early morning, six tanks, one bulldozer, and two graders moved into the area south of the village of Alma Ash Shab, close to the Mediterranean coast, and withdrew to the Israeli side after a couple of hours." UNIFIL press release PR03, 19 July 2006.

90. Josh Brannon and jpost.com staff, "Halutz Slammed for Promoting Generals," *Jerusalem Post*, 30 October 2006, <http://www.jpost.com/servlet/Satellite?cid=1161811237367&pagename=JPost%2FJPArticle%2FShowFull>.

91. IDF, ITIC/CSS, pt. 2, 91–92.

92. Amos Harel and Gideon Alon, "Defense Sources: Winograd War Probe to Last at Least a Year," *Haaretz*, 23 October 2006; and Brannon et al., "Halutz Slammed for Promoting Generals."

93. UNIFIL press release PR03, 19 July 2006; and UNIFIL press release PR04, 20 July 2006.

94. IDF, ITIC/CSS, pt. 2, 78. As many as 150 civilian-clothed Hezbollah fighters concentrated in Bint Jbeil for the 25–26 July battle, maintaining a low profile and blending in with the local population.

95. UNIFIL press release PR04, 20 July 2006. UNIFIL had observed Hezbollah firing rockets from the vicinity of Marwaheen on 16–17 July. UNIFIL press release PR01, 17 July 2006.

96. UN, *Report of the Secretary-General*. According to Israeli and UN records, this included Dhaira, Majdal Zoun, Marwaheen, Rajmin, Shama, Shiheen, and Tayr Harfa, near the coast; Aiyt a-Shab, Bint Jbeil, Maroun a-Ras, Ramiya, and Yaroun, in the central sector; Froun and Ghandouriyeh, in the interior; and al-Adayseh, Blida, Deir Mimas, Houla, Kfar Kila, Mais al-Jabel, Markaba, Muhaybib, Rab al-Thalathine, Sarda, and Taybeh, in the east.

97. Lebanese army units began deploying to southern Lebanon on 17 August. The blockade was lifted on 8 September. By 1 October, the IDF had withdrawn from Lebanon.

98. Abraham Rabinovich, “Retired Israeli Generals Vent,” *Washington Times*, 27 September 2006, <http://washingtontimes.com/world/20060926-105117-2517r.htm>.

99. As postwar reviews showed, Division 91 and Northern Command ground forces were not prepared on 12 July to lead any kind of instant ground retaliation or to assume responsibility for another protracted war and occupation.

100. As one observer says, “On the first day of the cease-fire, it was possible to reach Bint Jbeil and Aitta Shaab [Aiyt a-Shab] in the western sector of the border district—which lay behind the IDF’s frontline positions in Haddatha, Rashaf and Yatar—without even seeing a single IDF soldier.” Blanford, “Hizbullah [*sic*] and the IDF.”

101. Halutz, a fighter pilot who shot down five Arab planes in the Yom Kippur War in 1973, was the first IAF officer ever appointed head of the IDF. He was selected by Prime Minister Ariel Sharon.

102. See, for example, Shai Feldman, “The Hezbollah-Israel War: A Preliminary Assessment,” Middle East Brief, Crown Center for Middle East Studies, Brandeis University, September 2006: “By the end of the first week of fighting, it had become clear that suppressing Hezbollah’s attacks exclusively through the use of airpower would not be possible.”

103. The commander of the IDF army headquarters, Maj Gen Benjamin Gantz, said that, “Here we had an enemy armed with the latest weaponry and technology; learned our air operations and our methods of fighting; and mastered the principles of stealth. He burrowed down and concealed himself, and this was a tremendous advantage that we gradually learned to overcome in the course of fighting.” *Defense News*, August 2006, 38.

104. The author has weighed in himself on these debates. See, for example, William M. Arkin, “Baghdad: The Urban Sanctuary in Desert Storm?” *Airpower Journal*, Spring 1997; “Desert Fox: The Difference Was in the Details,” *Washington Post*, 17 January 1999, B1; Human Rights Watch, “Civilian Deaths in the NATO Air Campaign,” February 2000 (written by the author); “Challenge to the ‘15,000-Foot Myth’ Consumes Air Force Planners,” *Defense Daily*, 2 March 2000; “Smart War, Dumb Targeting?” *Bulletin of the Atomic Scientists*, May–June 2000; and “Air Heads: Misperceptions and Rivalries Obscure Air Power’s Potential,” *Armed Forces Journal*, June 2006.

105. See, for example, transcript, Hassan Nasrallah speech in south Beirut, aired on Al-Manar TV, 16 February 2007.

106. Prime Minister Olmert said in September 2006 interviews that the war “was an unvarnished success,” insisting that UNSCR 1701, which brought about the cease-fire and called for the disarming of Hezbollah, was a codification of Israel’s greatest military and political victory. Caroline Glick, “Column One: The World According to Olmert,” *Jerusalem Post*, 28 September 2006, <http://www>

.jpost.com/servlet/Satellite?cid=1159193338867&pagename=JPost%2FJPArticle%2FShowFull. Olmert said in another September 2006 interview (“Israel’s Olmert Talks on Lebanon War”; and “I Had No Illusions about This Job”): “This is the first time in a war between Israel and Arabs that . . . a war ends up not with a cease-fire imposed on us, against us, but with a cease-fire imposed by us to suit our political interest. This is what happened with [a vote of] 15-0 at the UN Security Council, without one word of criticism on Israel after fighting for 33 days against a Muslim society, when a large part of the world complained that Israel was destroying all of Lebanon, and that this was disproportionate and what not. . . I think this was a very smart, subtle and sophisticated use—proportionally—of the military power together with the political power to achieve what we set forth to achieve . . . including a change in the entire political make-up in Lebanon, which is on the way, and a change in the posture of moderate Arab countries against the Shi’ites in Lebanon, which is an outcome of this war.”

107. “Interview: Maj Gen Benjamin Gantz,” 38.

108. There are many different views on this question of deterrence. Some argue that attacks on Hezbollah and Lebanon weakened, not reinforced Israel’s overall deterrence of the nonstate, Arab, and Iranian threat; weakened support for Israel in Europe and elsewhere; and stimulated a new wave of support for fighting Israel. Finally, there are those who argue that it will be difficult for Israel to prevent its “mismanagement” of the campaign against Hezbollah from damaging its deterrent profile. Feldman, “The Hezbollah-Israel War.”

109. Though not the subject of this study, the IDF did achieve a number of “firsts” in the campaign, such as digitizing its ground forces on-the-fly after the campaign began, refining its “sensor to shooter” capabilities as the war progressed, and applying many innovations incorporating unmanned vehicles. Some systems were used for the first time (e.g., MLRS) and others performed admirably (e.g., aircraft and PGMs), but talk about not being able to see the forest for the trees!

110. JPost.com staff, “Halutz: ‘War Results Mediocre, IDF Far from That,’” *Jerusalem Post*, 1 October 2006, <http://www.jpost.com/servlet/Satellite?cid=1159193351994&pagename=JPost%2FJPArticle%2FShowFull>.

111. AP (Jerusalem), “Israeli Army Chief Admits Failures in Lebanon War but Won’t Resign,” 2 January 2007. Former IDF chief, retired lieutenant general Dan Shomron, a ground officer, also says “the prime minister instructed the army [the IDF] to halt the rocket fire on Israel, but the army failed to translate it into a military objective.” Scott Wilson, “Israeli Head of Military Quits after War Critique; Leadership in Conflict with Hezbollah Faulted,” *Washington Post*, 17 January 2007, A10.

112. “Today, the resistance has more—and I highlight the word ‘more’—more than 20,000 missiles. Within a few days, even though it emerged from a fierce war, the resistance completely restored its military and organizational infrastructure, as well as its arsenal of weapons. Today, the resistance is stronger than on the eve of July 12.” Transcript, Hezbollah secretary-general Hassan Nasrallah, at a victory rally, 22 September 2006.

113. IDF, ITIC at the Israel Intelligence Heritage and Commemoration Center (IICC), “The Implementation of Security Council Resolution 1701 after Six Months; Interim Report,” 4 March 2007, http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/res_1701e0307.htm. See also Yaakov Katz, “IDF: Hezbollah Almost at Full Strength,” *Jerusalem Post*, 21 December 2006, <http://www.jpost.com/servlet/Satellite?cid=1164881939862&pagename=JPost%2FJPArticle%2FShowFull>; and Editorial, “Confronting the Threats,” *Jerusalem Post*, 4 December 2006.

114. It went on to say that “Lebanon was compelled to deploy the Lebanese Armed Forces (LAF) to the south, though the LAF has not moved to disarm Hezbollah. Additionally, the Lebanese government has now been told it is accountable for what occurs on all Lebanese territory

as a result of UNSCR 1701. Hezbollah leaders claimed victory and grew more assertive in their political demands as demonstrated by ongoing opposition demonstrations in Beirut. Hezbollah is currently focused on asserting political dominance in Lebanon. Iran and Syria remain committed to Hezbollah's survival. Israeli defense officials have publicly opined that due to the fluid situation the conflict could reignite during the summer of 2007." Lt Gen Michael D. Maples, director, Defense Intelligence Agency, "Current and Projected National Security Threats to the United States," Statement for the Record, Senate Select Committee on Intelligence Committee, 11 January 2007.

115. "Interview: Maj Gen Benjamin Gantz," 38.

116. Amnesty International, "Israel/Lebanon: Evidence Indicates Deliberate Destruction of Civilian Infrastructure."

117. Human Rights Watch, "Israel: Government Committee Should Probe Lebanon Laws of War Violations," Press Release, 26 September 2006.

118. United Nations, *Report of the Commission of Inquiry on Lebanon Pursuant to Human Rights Council Resolution, S-2/1, A/HRC/3/2*, 23 November 2006, 3.

119. *Ibid.*, 27. "As with so many other cases investigated by the Commission, the IDF actions were indiscriminate and disproportionate. The destruction of so many civilian houses is not justifiable in terms of military necessity." *Ibid.*, 32.

120. At the end of the year, Minister of Defense Amir Peretz argued at an event honoring soldiers who were injured in the war that, "The war against Hezbollah didn't receive appropriate recognition." Hanan Greenberg, "Peretz to War Casualties: We Achieved Goals in Lebanon," Ynetnews.com, 28 December 2006, <http://www.ynetnews.com/articles/0,7340,L-3345484,00.html>.

121. Yoel Marcus, "One Leader with an Agenda," *Haaretz*, 26 September 2006, <http://www.haaretz.com/hasen/objects/pages/PrintArticleEn.jhtml?itemNo=766887>.

122. United Nations, *Report of the Commission of Inquiry*, 4, 26.

123. *Ibid.*

124. Israeli MFA, "M. Olmert: Lebanon Is Responsible and Will Bear the Consequences." Halutz also warned that the air strikes were aimed at sending a "message" to Lebanese officials to stop Hezbollah. Erlanger, "Israel Vowing to Rout Hezbollah"; and CNN, "Israel Authorizes 'Severe' Response to Abductions," 12 July 2006, 0227 GMT, <http://www.cnn.com/2006/WORLD/meast/07/12/mideast/>.

125. AP (Beirut), "Heavy Clashes in Southern Lebanon as Hezbollah Announces Capture of Two Israeli Soldiers." "The Lebanese government, which allowed Hezbollah to commit an act of war against Israel, will pay a heavy price," Justice Minister Haim Ramon also warned. AFP (Beirut), "Israel Bombs Beirut Airport, 27 Killed in Raids," 13 July 2006, 0614 GMT. A retired Israeli army colonel was quoted in the *Washington Post* as saying that the goal of Israel's military campaign was also to "create a rift between the Lebanese population and Hezbollah supporters." In a message to Lebanon's elite, he said, "If you want your air conditioning to work and if you want to be able to fly to Paris for shopping, you must pull your head out of the sand and take action toward shutting down Hezbollah-land." Philip H. Gordon, "Air Power Won't Do It," washingtonpost.com, 25 July 2006, A15.

126. Yaakov Katz, "High-Ranking Officer: Halutz Ordered Retaliation Policy," *Jerusalem Post*, 24 July 2006. IDF spokesmen vigorously denied any such objective, though there were authoritative reports and rumors that 10 buildings were hit in south Beirut on 13 July.

127. Information based upon attack and target database compiled by the author and Matthew McKinzie. The dates where no Hezbollah attacks occurred in the Beirut southern suburbs were 17,

21, 26–28, 30–31 July and 1, 2, and 8 August. On 12 July, only the Beirut International Airport was bombed.

128. Cordesman, “Preliminary ‘Lessons,’” 13.

129. IDF spokesman’s office, “Dan Halutz’ letter of resignation.”

130. Organizational changes in the IDF from the 2000 withdrawal assigned greater responsibility (including command responsibilities) in both the general staff and the Ground Forces Command. This was done at the expense of both Northern Command and the army corps commands. Many of these organizational changes were done to restructure the IDF to “fight” in the Gaza and West Bank, where larger unit actions weren’t perceived as needed.

131. For instance, retired major general Amiram Levin, who wrote a report about the Northern Command’s performance, pointed to the new doctrine, which he said “had a crucial contribution to the flaws exposed during the war against Hezbollah.” He called effects-based operations “fundamentally wrong,” saying it could not have succeeded and should not have been implemented. Alon Ben-David (Tel Aviv), “Debriefing Teams Brand IDF Doctrine ‘Completely Wrong,’” *Jane’s Defence Weekly*, 3 January 2007.

132. IDF, “Summary of IDF Operations in Southern Lebanon in the Past 24 Hours (Prior to Cease-Fire), Monday 14/08/2006 14:40 [14 August 2006],” <http://www1.idf.il/DOVER/site/mainpage.asp?sl=EN&id=7&docid=56700&Pos=1&last=1&Scope=True>.

Book Reviews

The Perils of Amateur Strategy as Exemplified by the Attack on the Dardanelles Fortress in 1915 by Lt-Gen Sir Gerald Ellison, K.C.B., K.C.M.G. Longmans, Green and Co., 1926, 145 pp.

It is not every day an obscure, out-of-print book makes national headlines, but when the most avid reader of military history in the United States House of Representatives speaks, the Washington beltway defense establishment rightfully takes notice. Rep. Ike Skelton, the 15-term Democrat from Missouri, assumed the chairmanship of the House Armed Services Committee with the opening of the 110th United States Congress in January 2007. Three months earlier, in the waning days of his eight-year tenure as the committee's ranking minority member just before the November 2006 congressional elections, Skelton wrote an opinion-editorial piece for *The (Independence, Missouri) Examiner*, a small daily in his west-central Missouri congressional district. In it, he referenced Sir Gerald Ellison's remarkably crisp and readable 1926 work, *The Perils of Amateur Strategy*, a book about the British decision in 1915 to conduct the disastrous Gallipoli campaign during World War I, and asserted bluntly, "In 2006, we find that the Bush Administration's strategic mistakes during the opening years of our misadventure in Iraq have provided ample material for its sequel, 'The Perils of Amateur Strategy II.'" Skelton used this stinging phrase later in a congressional press release and again during a brief National Public Radio interview, both in late October 2006.

Bound for a return to obscurity save for the attention of avid military historians, Ellison's book reemerged following the midterm elections when control of the House of Representatives shifted back to the Democrats after 12 years under the Republicans. Soon thereafter, following *Washington Post*, *Associated Press*, and *Congress Daily* in-depth profiles of the incoming House Armed Services Committee chairman from Missouri, the book received renewed national media attention.

Given Skelton's remarks, one could not help but ask what a book written over 80 years ago about the flawed British decision to undertake operations in the eastern Mediterranean Sea and on Gallipoli in 1915, collectively known as the Dardanelles campaign, had to do with the American decision to launch Operation Iraqi Freedom in 2003. What began as an interesting, rare book title that Skelton then turned into a catchy sound byte for the national media merits further examination. As opportunity would have it, one of the few available public copies in the nation was here at Stanford in the Hoover Institution archives. After reading it, I discovered that the parallels between Gallipoli in 1915 and Iraq today are both uncanny from a historical perspective and could not be more relevant given current war strategy debates. Without question, Ellison's book is well worth a closer look by inquiring "historical minds."¹ As Ellison himself rightly reminds us, in

both chess and war strategy “skill comes only as the result of much thought and prolonged study.”

A career infantry officer, Sir Ellison (1861–1947) received the Queen’s Medal for his service during the Boer War. In 1906, he served as personal secretary to the Secretary of State for War, Lord Haldane. A personal friend of General Sir Ian Hamilton, the Allied commander-in-chief at Gallipoli, he was the deputy inspector general for communications on his Mediterranean force headquarters (GHQ) staff in 1915. Without question, Ellison’s “little volume” was influenced by this friendship but no more than one would expect, as he was the beneficiary of a by-name-request wartime staff hire and a loyal subordinate. After the war, Ellison served as the secretary to the War Office Reconstitution Committee. He also served as the first Gallipoli official historian for the Committee of Imperial Defence before being replaced by Brig-Gen C. F. Aspinall-Oglander, another former GHQ staff officer during the campaign, for unknown reasons.

At only 145 pages, Ellison’s book embodies the British tradition of concise historical prose as seen most recently in the writings of Sir Michael Howard, proving there is no direct correlation between the quality of a book and the number of pages in it.² Fundamentally, Ellison seeks an answer to one basic question, what is the most efficient method of conducting operations of war under a democratic form of government? This book is not a battle history of the conduct of a specific military campaign but rather a critique of the decision process to undertake it. In modern terms, the book is an examination of grand strategy and civil-military relations during wartime. The Dardanelles campaign is Ellison’s definitive and only case study. Like a well-schooled local beat newspaper reporter, he does not bury the lead. The book’s first epigram tells readers clearly where the author wants to take them. Ellison cites Walter H. Page, United States ambassador to Great Britain, “The horrible tragedy of Gallipoli [was] where the best soldiers in the world were sacrificed to politicians’ policies.”

The book uses three primary sources exclusively: Winston Churchill’s *The World Crisis: 1915*, Admiral of the Fleet Lord Fisher’s *Memories*, and the British government’s official *Final Report of the Dardanelles Commission*, all published no earlier than four years after the Dardanelles campaign ended and two years after the conclusion of World War I. Unlike the present-day genre of journalistic books about the US decision to go to war in Iraq and the war strategy itself, to include post-combat stability operations, *Perils* is not history or commentary written in *medio bello*. It contains no pseudo-footnotes of anonymous sources or former unnamed senior British War Council officials.³ Rather, *Perils* is the kind of well-sourced, definitive assessment that one would expect to be written after a failed military campaign by a military officer who participated in the misfortune. With the failure of the Dardanelles campaign conclusive historically and with primary sources readily at hand, Ellison asks and answers three questions: What went wrong strategically? Why? What are the remedies to prevent similar military failures in the future? The book addresses these questions in order.

In the first four chapters of *Perils*—"Expert Plans," "Turkey," "The Valour of Ignorance," and "The Short Cut to Victory"—Ellison moves swiftly from August 1914 to the British War Council meeting that took place on 28 January 1915, when the final "unsound to the last degree" decision to launch the Dardanelles campaign was made. His narratives of key world events in the first four months of World War I, the military situation on the Gallipoli peninsula, ongoing British war-planning efforts, and the competing grand-strategy debates at the time are succinct and accurate. Here, two important themes emerge. They constitute the strength of the book for scholars today.

First, "amateur strategy triumphed," and the British War Council ordered the commencement of the Dardanelles campaign without giving due consideration to strategic intelligence and other viable grand-strategy alternatives available to them. One option supported the main effort on the western front. The other addressed Russian pleas for substantial Allied military operations in the East. When he returned as First Sea Lord and Admiral of the Fleet for the second time in October 1914, Lord Fisher advocated a naval strategy concentrating on Germany's north-western sea flank. His plan sought to deny the Germans use of the Baltic Sea that remained, according to Ellison, a "German lake" throughout the war. Secretary of State for War Lord Kitchener championed his "Alexandretta Project," a detailed plan whereby an amphibious force landed in the lightly defended Gulf of Alexandretta would capture the Baghdad railway and cut the Ottoman Empire in two. Neither plan was ever adopted.

For Ellison, the Dardanelles campaign was never "a feasible operation of war," and the "abrupt and all-embracing change of strategic conception" from West to East was a tragic mistake. The greatest lesson of the whole war was that "amateur civilians" reached conclusions and made "monstrous decisions" while neglecting "expert military advice." On 28 January 1915, "political considerations" overruled the "acquired instincts" of senior military officers. In the end, Prime Minister Herbert Henry Asquith chose the Dardanelles course of action "to solve a variety of diplomatic and strategic problems"⁴ under a miasma that, according to Lord Fisher, "like a deadly, invisible poisonous gas . . . floated down on [the British War Council] with rare subtle dialectical skill and proved so incontestably to them that cutting off the enemy's big toe in the East was better than stabbing him in the heart in the West."⁵

Second, when ordered to conduct a campaign they believed "a pure gamble" and doomed to failure, most senior military officers chose silence over resignation. The one notable exception was Lord Fisher. The First Sea Lord, however, despite tremendous misgivings, did not resign in protest over the decision to launch the campaign in January 1915. Rather, he resigned 19 days after the British army first landed on the Gallipoli peninsula four months later. For Lord Fisher, the commitment of ground forces in the Dardanelles neglected grossly and was absolutely counter to "the decisive theatre of the War."

When Ellison turns to the question of why the Dardanelles campaign decision was made, his chapter titles, "The Catspaw," "Sanhedrim Control," and "Past

Warnings” are telling, but his arguments become weaker and not without flaw or bias. First, his “catpaw” is simply the failure of the British navy and army establishments to view warfare jointly. The campaign was disjointed from the start and was a case “of one service being dragged by the action of another service into an operation which proved its undoing.” Therefore, it should never have been undertaken in the first place. In hindsight, his point is well taken, but, previously, Ellison did not highlight the lack of jointness in either the Fisher or Kitchener plans he advocated as viable alternatives.

Second, Ellison returns to the British War Council and castigates its civilian members for acting like a blind Sanhedrim. Here, he uses limited pages to present his one-sided view of civilian control of the military in a democracy.⁶ Ellison disagrees vehemently with Winston Churchill on this issue. For Churchill, who as the First Lord of the Admiralty was a member of the council, “the distinction between politics and strategy diminishes as the point of view is raised. At the summit, true politics and strategy are one.”⁷ Ellison counters, “Politics and strategy are radically and fundamentally things apart from one another. Strategy begins where politics end.” War is a most serious matter in a democracy, and the relationship between civilian leaders and senior military officers is not as simple as Ellison would have us believe. At the highest levels of government, there is no sacrosanct division of labor when it comes to administration and command functions. In deciding grand strategy, the “purely military domain” Ellison champions is nonexistent.

The final reason why Ellison believed the Dardanelles campaign was launched was historical neglect. He describes specific reforms taken within the British government after their Boer War experience. Between 1903 and 1914, these reforms included the stand-up of a general staff, the appointment of the First Sea Lord and Chief of the General Staff as the “recognised experts of the fighting services,” and the creation of the Committee of Imperial Defence whereby senior military officers could meet alone with the prime minister to “express their opinions freely, unhampered by the presence of numerous cabinet ministers.” By November 1914 and the stalemate on the western front, all these reforms were set aside, and the British War Council became the sole deliberative body for grand-strategy decisions. Ellison is confounded as to why the Committee of Imperial Defence was disbanded and replaced by a much larger war council dominated by civilians. He believed strongly had the reforms put in place prior to the war been adhered to, the conduct of the Dardanelles campaign “would assuredly have been avoided.”

In his two concluding chapters, Ellison makes three specific recommendations on reforms he deemed essential to avoiding future military failures like Gallipoli. First, a ministry of defence led by a defence minister must be created. Second and equally as important, a joint general staff led by a single military officer had to be instituted. Finally, the chartering of a joint staff college for professional military education across service lines would begin to break down interservice misgivings and competition. Eventually, these reforms were instituted in Britain, but, in 1926, Ellison’s advocacy for them is shallow beyond his three declarative “ought

to” statements. He deserves credit for introducing the specific reform proposals into the postwar debate, but he left the specifics for others to refine into policy.

Many years after the Dardanelles campaign, Churchill was asked to recount the details of the original concept of operations he advocated so strongly on 28 January 1915 and to which the senior military officers acquiesced. Churchill replied, “Force a passage through the Dardanelles and either with or without army occupation of the Gallipoli peninsula, to insert a fleet into the Sea of Marmora, which could then advance to the Golden Horn, intimidate Constantinople and induce the Turkish government to sue for peace.”⁸ Ellison described the plan this way: “Sail in the fleet, start a revolution and the Ottoman Empire would sue for peace . . . utopian in the extreme.” Seen either way, the plan failed. However, Churchill and Ellison differ on the reasons why. The former saw it as a failure of execution and a “short cut to victory” wasted.⁹ The latter believed it a failure of conception embodied by amateur strategy. Within military history circles, the debate about the Dardanelles campaign continues.

With regard to the current Iraq War, the scholarly debate is just in its infancy. While refusing to characterize the war in Iraq as a failure as of this writing, questions of its conception versus execution are valid. Like Gallipoli during World War I, Operation Iraqi Freedom is part of a larger war and its original concept of operations was shortsighted at best and amateur at worst. Historians will have much to say on this matter.

Additionally, civil-military relations in the United States have moved beyond both Georges Clemenceau’s famous dictum, “War is too important to be left to the generals,” and Ellison’s emphatic claim that politicians are not capable of dealing with military strategy. The command relationships and decision-making structures mandated by the Goldwater-Nichols Act of 1986 have been and are being presently tested in war. The great utility of Ellison’s book today is that it demonstrates the importance of reexamining these structures as we learn both from our successes and our failures.

All students of civil-military relations must also find value in Ellison’s descriptions of Lord Fisher and the role he played in the British World War I grand-strategy debate. He understood there were overwhelming political reasons for the conduct of the Dardanelles campaign, hence his original silent support for the strategy. “It was my duty,” he wrote later, “to acquiesce cheerfully and do my best, but when the moment came that there was jeopardy to the Nation, I resigned.” His was a Madisonian view of civil-military relations that serves as an example for senior military officers today at the national security decision-making level. Fisher believed rightly that “Sea Lords are the servants of the Government. Having given their advice, then it’s their duty to carry out the commands of the political party in power until the moment comes when they feel they can no longer support a policy which they are convinced is disastrous.”¹⁰ Congressman Skelton’s statement, “Sadly, the eruptive situation in Iraq reflects that we are reaping the ultimate results of perils of the amateur strategy formulated by our civilian leaders in the early phases of this conflict,” may be premature.¹¹ In the absence of any senior

military officer resignations since the beginning of the war in Iraq, their culpability in the Bush administration's grand strategy remains unknown.

Suffice it to say, Ellison's book falls short of answering definitively his self-stated central question: what is the most efficient method of conducting operations of war under a democratic form of government? But 80 years of history with democracies at war on many levels have yet to yield the definitive answer. However, his insightful discussions of grand-strategy formulation and civil-military relations in wartime are very well worth reading. Ellison's book is to the Dardanelles campaign as H. R. McMaster's book, *Dereliction of Duty*, is to the Vietnam War.¹² For now, we wait for a similar scholarly examination of the war in Iraq. In this time of war, all credit is due Congressman Skelton for rediscovering Ellison's *Perils* and injecting it into the ongoing national security and military strategy debates. At the same time, caution is advised. Congressman Skelton would certainly not advocate a national security policy-making process dominated by the military vice Ellison, who certainly does.

Lt Col Scott F. Murray, USAF

National Security Affairs Fellow, Stanford University

Notes

1. Eliot A. Cohen, "The Historical Mind and Military Strategy," *Orbis* 49, no. 4 (Fall 2005): 575–88.
2. See Michael Howard, *War in European History* (Oxford: Oxford University Press, 1976).
3. See Victor Davis Hanson, "Whose Fiasco?" *Policy Review* 140 (December 2006/January 2007), <http://www.hoover.org/publications/policyreview/4884441.html>, for an excellent critique of the current genre of the Iraqi exposé, to include Thomas E. Ricks' *Fiasco*, Bernard Trainor and Michael Gordon's *Cobra II*, George Packer's *The Assassin's Gate*, and Bob Woodward's *State of Denial*, and the obligation to use verifiable sources when writing history.
4. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Vintage Books, 1990), 134.
5. Lord Fisher, *Memories* (London: Hodder and Stoughton, 1919), 50–52.
6. For an excellent overview of twentieth-century civil-military relations scholarship, see Dale R. Herspring, *The Pentagon and the Presidency: Civil-Military Relations from FDR to George W. Bush* (Lawrence, Kansas: University of Kansas Press, 2005).
7. Winston S. Churchill, *The World Crisis: 1915* (New York: Charles Scribner's Sons, 1923), 6.
8. Roy Jenkins, *Churchill: A Biography* (New York: Farrar, Straus and Giroux, 2001), 255.
9. Churchill, *World Crisis*, 36.
10. Fisher, *Memories*, 70.
11. "Skelton Statement Regarding Violence in Amara, Iraq," Press Statement, Office of Cong. Ike Skelton (D-MO), 20 October 2006.
12. H. R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies That Led to Vietnam* (New York: HarperPerennial, 1997).

Human Rights in the Global Information Society edited by Rikki Frank Jorgensen. MIT Press, 2006, 324 pp., \$25.00.

Human rights in the global information society are complex and broad based. While a large portion of the world agrees that unfettered access to information is a human right, only about half of the world's governments have taken steps to ensure this basic human right is preserved for their citizens. In some cases, they appear to ensure freedom of information is guaranteed, but in reality, the laws they enact restrict access. As the senior advisor at the Danish Institute for Human Rights and advisor to the Danish Delegation to the World Summit on the Information Society, Rikki Frank Jorgensen is well qualified to edit this volume. She also serves on the boards of Digital Rights and European Digital Rights.

The editor divides this anthology into three sections: "Freedom of Expression, Access to Information, and Privacy Protection"; "Freedom of Association, Participation, and Procedural Protections"; and "Equal Treatment and Development." David Banisar, William Drake, Ran Greenstein, Anriette Esterhuysen, Robin Gross, Gus Hosein, Heike Jensen, Hans Klein, Charley Lewis Meryem Marzouki, Birgitte Kofod Olsen, Kay Raseroka, Adama Samassekou, and Mandana Zarrehparvar also contributed chapters. Collectively, these authors represent Europe, Africa, and North America. Their varied experiences yield an authoritative discussion encompassing the full spectrum of challenges in ensuring human rights are realized in all portions of the globe. The reader can easily find additional sources to expand knowledge about this subject using the references cited in each article.

In a gross simplification, ensuring human rights in the digital age is a two-fold problem. The world is divided into "haves" and "have nots"—the phrase used to describe this schism is the *digital divide*. North America and Northern Europe are on the have side of the digital divide. Most of the rest of the world is, to varying degrees, on the have-not side of the divide. The book addresses nontechnological information-dissemination implementations as well, used by both sides of the digital divide.

On the have side, a primary concern is ensuring that people who must access the Internet via free access points are not hampered by restrictive filters. Defining the legal status of various Internet functions can also be problematic. To strike a balance between ensuring the human right of access to information while determining appropriate legal limitations and prosecution for inappropriate use is a significant challenge.

On the have-not side, installing the infrastructure so people can get information via the Internet (or any other means) is only the beginning. Once connected to the Internet, the local culture must be one which will allow users to access the system, and they must be literate and healthy enough to be able to use the infrastructure. Basic survival needs must be met to make seeking additional information worthwhile. Once this level is achieved, all the problems of the have side of the digital divide fall into place.

Most articles included in this anthology refer to the World Summit on the Information Society held in December 2003, with a follow-up summit in November 2005. Because of this, the book reads much like a version of the 2003 summit's proceedings. While there is nothing wrong with this, it may be a useful reference point for the potential reader. Other readers may not notice, but this reviewer had some concerns about the copyright section. It maintains that creativity bloomed in the era before copyright; however, it does not take into account that most creators supported themselves through the patronage of the wealthy. Whether a reader agrees with the discussion or not, this book includes plenty of information for enlightenment, thought, and consideration when determining strategy and policy.

For air, space, and cyberspace strategy and policy makers, this book identifies areas for improvement and reflection. For instance, Zarrehparvar discusses how unintentional institutionalized discrimination needs attention. These are hidden in long-standing social traditions and institutions but result in unintentional bias when policies are made or carried over from past implementations without regard to why they are in place. For example, height requirements are one way of unintentionally (presumably) discriminating against women. Assuming someone has Internet access is one way of limiting information access to residents of the northern hemisphere—specifically to those of the United States, Canada, and northern and western Europe. While Internet cafés are a common way for citizens to get access, many societies limit women's access to public places. Therefore, they are precluded from obtaining information that outsiders may see as available.

Offensive and defensive cyberspace practices need to consider human rights. When determining centers of gravity, one must consider the impact on society and access to information. One must also consider the consequences of reducing the role of the judiciary and increasing the roles of law enforcement and business practices on human rights in our own country. Marzouki identifies how—especially in the aftermath of the attacks of 11 September 2001 and the enacting of Patriot Act provisions—the role of the judiciary was reduced, decreasing judicial oversight or reducing it to a “rubber stamp” operation while increasing police autonomy.

The combination of terrorism and expanding electronic capability has brought us to a dangerous crossroads. How we navigate these paths impacts our future and whether or not we continue to embrace the vision of our founding fathers or choose a path away from that vision. Before some readers despair, they should note that we have navigated these concerns before with the advent of photography, the teletype, and databases. As we devise strategy across air, space, and cyberspace, we need to ensure we address human rights across the spectrum. The global information society is one venue for inclusion. This book will help increase awareness of these issues in a field in which awareness is sketchy at best.

Maj Jean Schara, USAF
Air Command and Staff College

Letter to Editor

Airmen and the Art of Strategy

Gen T. Michael Moseley's article in *Strategic Studies Quarterly's* first issue entitled "Airmen and the Art of Strategy" was excellent; he challenged not only Airmen but, in a sense, everyone in the US government to think about and prepare for the future. Other articles from the same edition, such as "Busting the Icon: Restoring Balance to the Influence of Clausewitz" by Phillip Meilinger, also stimulate us to think differently. As I thought about fighting the next war, I began thinking about what kind of war we should be fighting. Technologic? Kinetic? Social? Political? The war of "hearts and minds"? The answer is that we need to think about fighting all of them, and we should think about the role each of us plays in fighting each different aspect of war. Many believe that the next century's war is already here and that it is one of "hearts and minds" as opposed to one based primarily on kinetics. General Moseley covered kinetics and technology extremely well in his article. My aim is to stimulate some thought regarding the soft power that must also be used as an enabler in this next war and to discuss a few actions taking place to fight on that battlefield.

In my role as the US Southern Command's command surgeon for more than two years, I have seen the world a little differently than from the backseat of an F-15 concentrating on air dominance. The perspectives change depending on where you are sitting! Here are some perspectives from this joint SOUTHCOM/SG (surgeon general) fighting position. Human touch and a handshake still make a difference in this region. Making promises and keeping them is important to long-term relationships. There have been too many "divorces" in the recent past with former regional partners. As anyone who has ever been married knows, it takes a lot of work by both parties to keep a strong relationship growing. In relationships, each partner has to give and take and continue to pay attention to one another. This interaction and caring are what make the relationship strong.

Should Airmen think about building relationships as much as we do kinetics? I believe the answer to that question is a resounding yes—and we do. As the health world often states, "An ounce of prevention is worth a pound of cure." We all need to read and understand basic aspects of DoD Directive 3000.05, *Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations*. It lays out many perspectives of what I believe is the next war and the one we are currently fighting. In both the command's and SG's strategic planning, we focus on the nonkinetic aspects of strategy and have identified these as objectives in our Theater Security Cooperation Plans and our 2016 strategy/vision document. These are specifically aligned with our higher DoD strategic documents and with those of, for example, the Department of State, United States Agency for International Development, Centers for Disease Control, and Pan-American Health Organization (under the UN). This gives us a robust look into the future and increases our chances of success.

How are we specifically fighting this “soft” aspect of war at SOUTHCOM? As the commander, Adm James Stavridis, likes to say, “We don’t launch cruise missiles into this region, we launch ideas.” Sending ideas and building partnerships are exactly the foci of this command. Technology plays a part but is a supporting component as opposed to the central themes of strategic communication and cultivating personal relationships. This is a “brain-on-brain” as opposed to a force-on-force contest. Here are a few examples of what is going on at SOUTHCOM and the role that the Air Force has played in forming relationships and fighting on this different terrain. In the past few months, we have supported multiple humanitarian relief operations, mostly with logistical and medical support (God bless our logistical and medical global reach!). After the recent earthquake in Peru, the Air Force had some of the first medics on the ground to support the population. Similarly, after Hurricane Felix ravaged Nicaragua, Air Force mobility and medical forces delivered much-needed humanitarian support. There were reports of comments from the population saying, “The US is here; where is our president?” Their president was there soon after the disaster, but his request for assistance had already opened the doors for US forces and US airpower to provide humanitarian relief quickly—the point is well made: delivering help rapidly (air logistics, medical care anywhere) makes a difference and needs to be part of our global strategy . . . not an afterthought. As General Moseley wrote: “An Airman’s perspective is, by definition, multi-dimensional, global, and strategic. We instinctively address problems in a comprehensive, three-dimensional, nonlinear manner, and we intuitively factor in the fourth dimension: time.” These characteristics are absolutely vital to formulating strategy for building partnerships.

People in need will not forget those who show up time and time again to help with no motive other than to relieve suffering and improve living conditions. I have participated in Pandemic Influenza (PI) collaborative conferences with NORTHCOM that included Canada and Mexico. These meetings concentrate on the collaboration and interdependency needed to defeat this “enemy.” The NORTHCOM team did an extraordinary job laying the foundations for long-term relationships with military and civilian partners from these other countries. My SG shop organized two other separate PI conferences concentrating on the subregions of Central America and the Caribbean that included over 30 participating regional, key US government, and United Nations partners. Again, these events went extremely well and exemplify the American partnership with the region and the understanding that we are all in the same world working on transnational issues that require transnational solutions with many partners beyond the United States. We have also been in a long-term relationship with the Chilean medical community, setting up a combat casualty care course for its medics deploying in support of peacekeeping operations. The Chileans now run this program, with our medics being part of the faculty; well over 500 personnel have been trained, including civilians and medics from other nations. The Air Force has a physician medical liaison exchange officer to Chile; this physician has been essential to this effort, and these personal relationships are long lasting!

The USNS *Comfort* mission, visiting 12 ports in four months, is another great example of building partnerships on multiple fronts. This mission provides clinical medi-

cal, engineering, technical, and teaching support to the region. It is also a partnership with our nongovernmental organization partners—Operation Smile, Project Hope, and others. All services (Air Force has 60 medics on the ship) have been involved, along with our Public Health Service brothers and sisters. What a wonderful example of what the “good old US of A is all about”! Many host-nation comments were, “This is what the US should be doing; this is the USA that we used to know.” SOUTHCOM’s humanitarian assistance projects build partnership capacity and capability in the region through disaster response; building resources like clinics, schools, and wells; and medical readiness training exercises (MEDRETE). We conduct around 60 MEDRETEs each year (mostly split between the Air Force and Army) to deliver needed health care to remote local populations while training our members for deployments and redeployments. Between the USNS *Comfort* and the MEDRETEs, SOUTHCOM personnel will have “touched” over 350,000 people this year in a positive way.

SOUTHCOM has also helped move and distribute millions of dollars worth of gifts-in-kind from private industry (not an Air Force effort, but one that we need to pay attention to). This public-private partnership is another untapped resource that the US government needs to incorporate into the strategic effort. Lastly, I would like to mention the Air Force Medical Service’s International Health Specialist program, an idea of a visionary Airman, former Air Force surgeon general Lt Gen P. K. Carlton. This program dedicates approximately 50 authorizations to support the combatant commands (COCOM) with language-proficient, culturally sensitive/aware Airmen to carry out the nonkinetic mission. These Air Force medics are downrange all the time, forming long-term relationships and leaving a lasting, positive regard for the United States. COCOM surgeons general have clearly stated that this program represents a vital commitment to executing the present and future mission of winning hearts and minds. In conclusion, with the belief that the next century’s war will be about hearts and minds as much as kinetics, Airmen need to keep that perspective in play and put thought and resources into how this soft-power enabler synchronizes with Air Force kinetic capabilities.

Sean Murphy, Colonel, USAF, MC, FS
SOUTHCOM/SG

Corrections

“Airmen and the Art of Strategy,” p. 7 (Fall 2007), epigraph attributed to Thucydides’ *History of the Peloponnesian Wars* is actually a paraphrase of a quotation from Lt-Gen Sir William F. Butler, *Charles George Gordon* (London: MacMillan, 1907), 85. Butler wrote: “The nation that will insist upon drawing a broad line of demarcation between the fighting man and the thinking man is liable to find its fighting done by fools and its thinking by cowards.”

“Through the Glass Darkly,” p. 114, n. 30 (Fall 2007), should read: The roots of this argument stem from Waltz, *Theory of International Politics*, chap. 7. Kenneth N. Waltz develops this argument further in “Globalization and Governance,” *Political Science and Politics* 32, no. 4 (December 1999): 693–700; and “Globalization and American Power,” *National Interest*, no. 59 (Spring 2000): 46–56. Geoffrey Blainey also discusses this theme in *The Causes of War* (New York: Free Press, 1988).