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In Focus:

What Went Wrong in Afghanistan?

Todd Greentree

Detering Aggression in Asia

Jared M. McKinney and Peter Harris
Roman Muzalevsky

Rethinking US Strategic Concepts

Frank Hoffman
Maximilian K. Bremer and Kelly A. Grieco

In Tribute: Colin S. Gray

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Review Essay:

Sherman and His Historians

Mitchell G. Klingenberg

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From the Editor in Chief

Our Winter issue opens with *In Focus*, featuring a special commentary by former US Foreign Service officer, Todd Greentree. In “What Went Wrong in Afghanistan?”, Greentree argues America’s intervention in Afghanistan failed because the US government went in “too big.” A better model, he suggests, is small-footprint counterinsurgency as practiced during the final decade of the Cold War.

This issue’s first full forum, *Deterring Aggression in Asia*, offers two contributions concerning strategic issues in Asia. In “Broken Nest: Deterring China from Invading Taiwan,” Jared M. McKinney and Peter Harris contend America’s deterrence objectives vis-à-vis a Chinese invasion of Taiwan can be achieved through a tailored force package that looks beyond fighting over Taiwan. In “Sino-Indian Border Disputes in an Era of Strategic Expansions,” Roman Muzalevsky draws attention to recent border incidents between India and China and offers steps US policymakers can pursue to reduce tensions in the region.

Our second forum, *Rethinking US Strategic Concepts*, offers two articles addressing shortcomings in the way the US military is thinking about future warfare. Frank Hoffman’s “Defeat Mechanisms in Modern Warfare” revisits the prominent role of attrition in US strategic concepts, including the US Army’s multi-domain operations concept. In “The Air Littoral: Another Look,” Maximilian K. Bremer and Kelly A. Grieco maintain a paradigm shift is needed in US military thinking to make full use of “verticality” in the air and land domains.

The third forum of the Winter issue, *In Tribute*, consists of a single essay, “The Grand Strategic Thought of Colin S. Gray,” by Lukas Milevski, a student of the renowned scholar and strategist Colin Gray. Milevski discusses key themes, continuities, conceptual relationships, and potential discontinuities from Gray’s decades of grand strategic thought.

In the final section of this issue is a review essay. Mitchell G. Klingenberg’s “Sherman and His Historians: An End to the Outsized Destroyer Myth?” reveals how the historical emphasis on Sherman’s Civil War campaigns has obscured his postbellum career as the eighteenth Commanding General of the US Army. This emphasis also overlooks critical lessons Sherman derived from the war and sought to carry into the future. ~AJE

What Went Wrong in Afghanistan?

Todd Greentree
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ABSTRACT: Critics of the Afghan war have claimed it was always unwinnable. This article argues the war was unwinnable the way it was fought and posits an alternative based on the Afghan way of war and the US approach to counterinsurgency in El Salvador during the final decade of the Cold War. Respecting the political and military dictates of strategy could have made America's longest foreign war unnecessary and is a warning for the wars we will fight in the future.

Introduction: The Judgment of Failure

What went wrong in Afghanistan? Why did a nation predominant in all instruments of power, priding itself on winning its wars, lose to an inferior and unpopular extremist movement? This scenario was not the first time the United States blundered into misfortune under such circumstances. And it is unlikely to be the last. Self-inflicted defeat is a serious problem because there will be no guarantee of escaping consequences the next time, especially if we again ignore the basic dictates of strategy. For this reason, it is prudent to remember the wars we have fought may foreshadow the kind of wars we will fight in the future, even as the United States refocuses on great-power competition and the prospect of a major war.

The Afghan war is exceptionally well documented through authoritative histories, official reports of the Special Inspector General for Afghanistan Reconstruction, and social science research into the empirical problems of “proxy war.”¹ Yet, lacking the agony of defeat, the loss in Afghanistan may well be forgotten.²

While military and civilian leaders voiced compelling reasons to continue in Afghanistan, despite the improbability of reversing the Taliban onslaught,

This article benefited enormously from comments by Kaley Sepp, Frank Hoffman, Bruce Hoffman, Emile Nakhleh, Carter Malkasian, and Hew Strachan.

1. Theo Farrell, *Unwinnable: Britain's War in Afghanistan, 2001–2014* (London: Vintage, 2017); Eli Berman and David A. Lake, eds., *Proxy Wars: Suppressing Violence through Local Agents* (Ithaca, NY: Cornell University Press, 2019); Carter Malkasian, *The American War in Afghanistan: A History* (New York: Oxford University Press, 2021); Craig Whitlock, *The Afghanistan Papers: A Secret History of the War* (New York: Simon & Schuster, 2021); and Eli Berman et al., *Deterrence with Proxies*, Minerva Research Initiative, research project, <https://minerva.defense.gov/Research/Funded-Projects/Article/1699260/deterrence-with-proxies/>.

2. National Commission on Terrorist Attacks Upon the United States (NCTAUS), *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States*, official government ed. (Washington, DC: NCTAUS, 2004), <https://www.govinfo.gov/app/details/GPO-911REPORT>.

they did not sway President Joseph Biden's belief that Afghanistan was no longer worth the cost, even if leaving meant risking a rise in terrorism and abandoning progress that had benefited so many Afghans. However dishonorable the endgame, the president's decision to withdraw on the twentieth anniversary of 9/11 relieved the United States of a distraction from the increasing pressures of great-power competition, at least for the time being. Though the withdrawal seems an embarrassment in the short term, Eliot Cohen is right to note a long-term judgment of the Afghan war remains premature.³ Unfortunately, it is not too soon to measure the immediate costs of strategic failure: approximately 2,324 American military deaths and \$1 trillion expended, excluding the price tags of three dozen other coalition members; sanctioned violence that resulted in a grossly disproportionate body count on the order of 160,000 Afghans against the 2,996 people who died on 9/11; an overly ambitious democratic state-building project in shambles; Islamic extremists strengthened instead of weakened; and a vacuum in an unstable region left to be filled by adversarial parties such as China, Iran, Pakistan, and Russia.⁴

To take stock of America's protracted commitment to this bloody, messy war, one criterion above all is indispensable—results. To what degree did the United States achieve its policy goals in Afghanistan? Proponents of withdrawal emphasize, no matter the contentious outcome, counterterrorist operations met the original aim of degrading al-Qaeda and other terrorist organizations sufficiently and any recrudescence can now be handled from offshore. They argue, further, the war was always unwinnable and, in any case, continued involvement in combating the Taliban was futile. However compelling, these judgments insufficiently account for the policy, strategy, and performance deficiencies that yielded strategic failure. How accurately did US administrations conceive the nature and character of the war? Were alternatives to the chosen course of action considered? How timely were reassessment and adaptation? Were relations with allies and the partner government optimally managed? How effectively employed were the instruments of power? Did the United States act against its interests?

Another crucial issue regarding results is evident—failure was not inevitable. Afghans, no matter their shortfalls, are not to blame. The shock of 9/11 and the legacies of earlier wars forgotten or misremembered

3. Eliot A. Cohen, "Exit Strategy," *Atlantic*, April 13, 2021, <https://www.theatlantic.com/ideas/archive/2021/04/exit-strategy/618590/>.

4. US Department of Defense, *Casualty Status*, updated October 13, 2021, <https://www.defense.gov/casualty.pdf>; "Costs of War," Watson Institute for International and Public Affairs, updated October 15, 2021, <https://watson.brown.edu/costsofwar/>; and United Nations Assistance Mission to Afghanistan (UNAMA), Reports on the Protection of Civilians in Armed Conflict (Kabul, Afghanistan: UNAMA, 2008–21), <https://unama.unmissions.org/protection-of-civilians-reports>.

explain, but do not excuse, those in positions of authority who should have known better. The United States was not misled in Afghanistan but rather bears responsibility for its strategic myopia.

The Afghan War: Unwinnable—The Way It Was Fought

Although often overlooked, America's longest foreign war did not begin in 2001, but over 40 years ago as a war within the global Cold War. When the Soviets invaded Afghanistan in December 1979, they became enmeshed in a creeping intervention to stabilize a communist revolution that confronted a rising Islamic backlash and was spinning out of control. While the United States levied a panoply of sanctions to punish Moscow, the only one to endure was President Jimmy Carter's authorization of covert action to arm the nascent mujahideen, whom Carter called "freedom fighters."⁵ The mujahideen thrived with President Ronald Reagan and CIA Director Bill Casey's embrace of anti-communist insurgents and the largesse of "Charlie Wilson's War."⁶ With Pakistan as the controlling agent, Saudi Arabia and other contributors matched the CIA program dollar for dollar and launched a parallel program to keep Islamic extremists—including Osama bin Laden—away from Mecca by helping them fight jihad in Afghanistan.⁷ The mujahideen turned the Afghan war into the Soviet's "bleeding wound," compelled their withdrawal in 1989, and contributed to the bankruptcy and collapse of the Soviet system in 1991.⁸

The strategy imposed high costs on the Soviets. The costs to Afghans, however, were even more extreme: approximately five million refugees,

5. Zbigniew Brzezinski, to President Jimmy Carter, memorandum, December 26, 1979, document now declassified, https://nsarchive2.gwu.edu/carterbrezhnev/docs_intervention_in_afghanistan_and_the_fall_of_detente/doc73.pdf; Robert M. Gates, *From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War* (New York: Simon & Schuster, 1996), 142–43; Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge, UK: Cambridge University Press, 2007), 288–330; and Vladimir Snegirev and Valery Samunin, *The Dead End: The Road to Afghanistan*, trans. and ed. Svetlana Savranskaya and Malcolm Byrne (Washington, DC: National Security Archive, 2012), <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB396/>.

6. George Crile, *Charlie Wilson's War: The Extraordinary Story of the Largest Covert Operation in History* (New York: Atlantic Monthly Press, 2003); and Steve Coll, *Ghost Wars: The Secret Story of the CIA, Afghanistan, and Bin Laden, from the Soviet Invasion to September 10, 2001* (New York: Penguin Press, 2004).

7. Mustafa Hamid and Leah Farrall, *The Arabs at War in Afghanistan* (London: C. Hurst & Co., 2015); and Kim Ghattas, *The Black Wave: Saudi Arabia, Iran, and the Forty-Year Rivalry that Unraveled Culture, Religion, and Collective Memory in the Middle East* (New York: Henry Holt and Company, 2020), 2, 71–90.

8. Mikhail Gorbachev, *Political Report of the CPSU Central Committee to the 27th Party Congress* (Moscow: Novosti Press Agency Publishing House, 1986), 45; Bob Woodward, *Veil: The Secret Wars of the CIA, 1981–1987* (New York: Simon & Schuster, 1987), 316–18; CIA, *USSR: Withdrawal from Afghanistan*, special national intelligence estimate, March 24, 1988, document now declassified, https://www.cia.gov/readingroom/docs/DOC_0005564723.pdf; Svetlana Savranskaya and Thomas Blanton, eds., *Afghanistan and the Soviet Withdrawal 1989: 20 Years Later* (Washington, DC: National Security Archive, 2009), <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB272/>; and Bruce Riedel, *What We Won: America's Secret War in Afghanistan, 1979–89* (Washington, DC: Brookings Institution Press, 2014), x, 152.

one million dead, and civil war among the divisive mujahideen, who had no political project and were unprepared to govern. When US efforts to reconcile seven competing factions floundered, the United States abandoned Afghanistan.⁹ The most devout among the mujahideen reformed themselves into the Taliban and, aided by Pakistan, campaigned to restore order to Afghanistan. They seized Kandahar as their religious center and then Kabul in September 1996. Declaring themselves an Islamic Emirate, they launched a brutal fundamentalist regime that governed by delivering a rough form of Sharia justice. They also welcomed the return of bin Laden.

The mujahideen had served America's purpose as anti-Soviet proxies, and no one at the time raised serious concerns regarding the risks of Islamic jihad. It would have required clairvoyance to see how these seeds of the Cold War would bear the poisonous fruit of terrorism in 2001. It was equally inconceivable the second US intervention in Afghanistan would—like the Soviets—flounder, dragging along dozens of coalition members and perpetuating another 20 years of Afghan tragedy. This unanticipated sum of contingencies should not obscure the central problem: Afghanistan was unwinnable—the way it was fought.¹⁰

Operation Enduring Freedom started well. The invasion of Afghanistan began on October 7, 2001, with just cause and clear aims as Commander in Chief George W. Bush had ordered: destroy al-Qaeda, which had attacked the United States on 9/11, and overthrow the Islamic Emirate, which had hosted them. As it had in the 1980s, the CIA took the lead with a small number of paramilitary operatives, alongside US and allied special operations forces, and directed airpower armed with precision-guided munitions to support allied Afghan ground forces in the north and south. By early December, they had routed al-Qaeda and the Taliban. It was a conventional victory achieved through unconventional means, but as Secretary of Defense Donald Rumsfeld proclaimed, it was not the triumph of a revolution in military affairs.¹¹

Political-diplomatic action complemented military success. While air and ground operations proceeded, regional state representatives and other members of the international community, led by State Department troubleshooter James Dobbins, convened with a multiethnic, multifactional array of Afghans under

9. Coll, *Ghost Wars*, 336–52; and Peter Tomsen, *The Wars of Afghanistan: Messianic Terrorism, Tribal Conflicts, and the Failures of Great Powers* (New York: Public Affairs, 2011), 243–66.

10. NCTAUS, *9/11 Commission Report*, 254–65; Bruce Hoffman, “The War on Terror 20 Years on: Crossroads or Cul-De-Sac?,” Tony Blair Institute for Global Change, March 18, 2021, <https://institute.global/policy/war-terror-20-years-crossroads-or-cul-de-sac>.

11. Stephen Biddle, *Afghanistan and the Future of Warfare: Implications for Army and Defense Policy* (Carlisle, PA: Strategic Studies Institute, 2002); and Robert L. Grenier, *88 Days to Kandahar: A CIA Diary* (New York: Simon & Schuster Paperbacks, 2016).

UN auspices in Bonn, Germany.¹² During negotiations, they reconstituted Afghanistan as an Islamic Republic and endorsed American-anointed Hamid Karzai as its interim president. In this early phase, force and diplomacy succeeded by acting in harmony.

The model was not proxy war, but a joint venture in which, despite great asymmetries and wildly disparate cultures, international and Afghan partners shared resources, risks, and common interests—at least in principle.

After this venture, the way was lost. In December 2001, reluctance to concentrate available US forces in the mountains of Tora Bora enabled bin Laden to escape to Pakistan.¹³ In March 2002, Operation Anaconda in the remote, cold, and high-altitude Shah-i-Khot Valley eliminated the final resisting concentrations of al-Qaeda and Taliban. The unexpectedly difficult and prolonged battle, however, foreshadowed the challenges of fighting an elusive and determined enemy in the arduous conditions of Afghanistan.¹⁴

On the political side, the joint venture quickly ran into trouble and never fully consolidated. Afghanistan's multiethnic Islamic population, with its fractious political clans and society corroded by warfare and misgovernment, paired poorly with the institutional and liberal transformation envisioned by Western state-building efforts. Despite meaningful progress, this mash-up produced the worst of both worlds: pervasive corruption fueled by billions of dollars of foreign aid; multiple actors—including the United States—vying simultaneously to constrain some warlords while patronizing others; and intractable friction between a half-conceived democracy stitched to a hyper-centralized state presided over by a president with quasi-monarchical prerogatives but limited authority.¹⁵ By 2009, trust had eroded so deeply Ambassador Karl Eikenberry sent two highly classified cables addressed personally to Secretary of State Hillary Clinton containing a litany of complaints about America's Afghan partners and criticizing

12. James F. Dobbins, *After the Taliban: Nation-Building in Afghanistan* (Washington, DC: Potomac Books, 2008).

13. *Tora Bora Revisited: How We Failed to Get Bin Laden and Why It Matters Today: A Report to Members of the US Senate Committee on Foreign Relations*, 111th Cong., 1st sess., Senate Print 111–35 (November 30, 2009), <https://www.govinfo.gov/content/pkg/CPRT-111SPRT53709/html/CPRT-111SPRT53709.htm>; and Dalton Fury, *Kill Bin Laden: A Delta Force Commander's Account of the Hunt for the World's Most Wanted Man* (London: St. Martin's Griffin, 2009).

14. Adam Geibel, "Operation Anaconda, Shah-i-Khot Valley, Afghanistan, 2–10 March 2002," *Military Review* (May–June 2002): 72–77; Paul L. Hastert, "Operation Anaconda: Perception Meets Reality in the Hills of Afghanistan," *Studies in Conflict & Terrorism* 28, no. 1 (2005): 11–20; and Lester W. Grau and Dodge Billingsley, *Operation Anaconda: America's First Major Battle in Afghanistan* (Lawrence: University Press of Kansas, 2011).

15. Thomas Barfield, *Afghanistan: A Cultural and Political History* (Princeton, NJ: Princeton University Press, 2010); and Jonathan L. Lee, *Afghanistan: A History from 1260 to the Present* (London: Reaktion Books, 2018).

President Karzai as “not an adequate strategic partner.” When the cables leaked, they prompted analogies to what went wrong in Vietnam.¹⁶

Bringing order should have been an overriding priority; however, the strategic behavior of the United States became its source of instability. Behind affirmations of national interest and rational calculus, fear and passion drove the US response to 9/11. The so-called Global War on Terrorism was doubly misconceived—first, as an existential fight of good versus evil, and second, as a war against terror, which is a method rather than an enemy. With Americans rallying to avenge 9/11, the Bush administration funneled national purpose into a grand strategy of counterterrorism. Critically, American power concentrated this narrow and extrinsic interest initially on Afghanistan, where it conflated the Taliban with the hunt for al-Qaeda. The scheme to invade Iraq and bring democracy to the Middle East reduced Afghanistan to a secondary theater and inadvertently led allies creeping into not one but two quagmires.

Fixed on rooting out terrorists but leery of the “graveyard of empires” myth, US leaders disdained so-called nation building as a job for lesser powers.¹⁷ British Prime Minister Tony Blair’s government took the vanguard, attempting to merge military action with the liberal world order and convincing NATO to invoke its Article 5 collective defense clause for the first time.¹⁸ While special operations forces fought the Global War on Terrorism, coalition countries joined the separate International Security Assistance Force (ISAF), signing up for remaining ad hoc tasks such as conducting armed development in Provincial Reconstruction Teams. Dragged reluctantly into it, the Bush administration acquiesced to investing in these wider undertakings; however, it persistently overestimated both the utility of force and America’s ability to transform the nature of Afghanistan.¹⁹

Accidental Guerrillas and Accidental Counterinsurgents

One misconception led to another: al-Qaeda was defeated, its remnants on the run; the Taliban had ceased fighting, its emirate overthrown; the situation demanded stabilization. But bringing order to Afghanistan conflicted with

16. Robert W. Komer, *Bureaucracy Does Its Thing: Institutional Constraints on U.S.-GVN Performance in Vietnam* (Santa Monica, CA: RAND Corporation, 1972), 18–30; Karl W. Eikenberry, US ambassador to Afghanistan, to Hillary Clinton, secretary of state, “COIN Strategy: Civilian Concerns,” November 2009, in “Ambassador Eikenberry’s Cables on US Strategy in Afghanistan,” *New York Times*, January 5, 2010; and Don Snow, “Watching Karzai, Seeing Diem,” Atlantic Council, April 8, 2010, <https://www.atlanticcouncil.org/blogs/new-atlanticist/watching-karzai-seeing-diem/>.

17. Dobbins, *After the Taliban*, 125; and Seth G. Jones, *In the Graveyard of Empires: America’s War in Afghanistan* (New York: W. W. Norton & Company, 2010).

18. Christopher L. Elliott, *High Command: British Military Leadership in the Iraq and Afghanistan Wars* (New York: Oxford University Press, 2015), 89–92.

19. Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (London: Vintage Books, 2008); and James M. Dubik, *Accelerating Combat Power in Afghanistan*, report 2 (Washington, DC: Institute for the Study of War, 2009), <https://www.jstor.org/stable/resrep07878>.

hunting terrorists. As foreign forces flowed in, they searched for combat. Most Pashtuns who sided with the Taliban had little sympathy for the Arabs of al-Qaeda or interest in international terrorism and tolerated the coalition because of their promise to end the chaos in Afghanistan. Nevertheless, all former and suspected Taliban became residual targets for indiscriminate coalition manhunting supported by ample airpower and assisted with mixed enthusiasm and motives by Afghan security forces and warlord militias. Thousands of Taliban suspects filled prisons in Afghanistan, and they—not al-Qaeda or other terrorists—became the largest category of prisoners at Guantanamo.²⁰ While rooting out fighters in the corners of Pashtun tribal lands, incidents such as serial bombings of wedding parties and government delegations led to tens of thousands of civilian casualties over the years.²¹ Popular grievances grew, and the insurgency revived.

David Kilcullen coined a fitting aphorism: Afghans were accidental guerrillas, fighting foreign infidels because they happened to be in their space.²² The same was true in reverse. The United States and its coalition partners became accidental counterinsurgents, fighting the Taliban for its support of al-Qaeda, which violated our space in the 9/11 attack. Viewed in this manner, the Afghan war, with one warrior culture attacking another, was literally an accident.

What, exactly, was fighting the Taliban expected to achieve? The mission became vague and open-ended but was prosecuted on an urgent timeline, confused with counterterrorism but intended somehow to build a stable and democratic Afghanistan by defeating insurgents who presented no direct threat to the United States and its partners. Neither was it clear how means matched ends: a fundamental source of strategic error. For the better part of two decades, ISAF struggled to hold the initiative, carrying out stabilization and reconstruction missions but never able to abandon combat operations. For most of that time, Afghanistan was an economy of force operation conducted to manage the war at low cost and sacrifice. Contradictorily, commanders and troops strove to assert control with extremely expensive combat power one valley and one *Groundhog Day* at a time while aspiring to win Afghan hearts and minds. In

20. *New York Times*, “The Guantánamo Docket,” *New York Times*, updated October 14, 2021, <https://www.nytimes.com/interactive/2021/us/guantanamo-bay-detainees.html>.

21. UNAMA, *Protection of Civilians in Armed Conflict*.

22. David Kilcullen, *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One* (New York: Oxford University Press, 2009).

fact, throughout most of the war what passed for strategy was reactive and amounted, as Hew Strachan explained, to a succession of operations.²³

There were limits to the utility of force in what British General Rupert Smith called “war amongst the people.”²⁴ Nonetheless, with the exception of Special Forces, this realization came slowly and very late. It took America until 2006 to recognize the Taliban had regrouped, and then another three years, including a presidential election followed by nearly a year of study and deliberation, before the United States adapted. In 2009, eight years into the war, General Stanley McChrystal issued his ISAF *Commander’s Counterinsurgency Guidance*, while General David Petraeus, who replaced McChrystal in 2010, had previously presided over the much-anticipated publication of *Counterinsurgency Field Manual* (FM) 3-24.²⁵ Their revised approach placed protecting the population ahead of firepower, derived from the lesson experience had taught the hard way: attrition is an insufficient strategy because killing and capturing provokes more insurgents. The *new* strategy, in fact, represented the belated revival of *Foreign Internal Defense* and *Internal Defense and Development*: US doctrines with pedigrees that predate World War II and the Cold War.²⁶

With the Taliban rampant, however, there seemed little choice other than getting ahead of the curve by going big—the same purportedly miraculous strategy that had rescued Iraq from chaos in 2007.²⁷ In December 2009, President Barack Obama announced a surge that would bring combined US and coalition troops in Afghanistan to 130,000, along with a notional target of increasing Afghan security forces to 400,000.²⁸ For a brief period, force ratios and force employment aligned to reverse the deteriorating security situation. Not only was this escalation patently unsustainable, by declaring the surge would end in 18 months, Obama inadvertently created a strategic paradox. Everyone understood

23. Hew Strachan, “Strategy or Alibi? Obama, McChrystal and the Operational Level of War,” *Survival* 52, no. 5 (2010): 157–82.

24. Rupert Smith, “Interview with General Sir Rupert Smith,” *International Review of the Red Cross* 88, no. 864 (December 2006): 719–27.

25. Michael T. Hall and Stanley A. McChrystal, *ISAF Commander’s Counterinsurgency Guidance* (Washington, DC: NATO, 2009), https://www.nato.int/isaf/docu/official_texts/counterinsurgency_guidance.pdf; and *The U.S. Army/Marine Corps Counterinsurgency Field Manual*, U.S. Army Field Manual No. 3-24 / Marine Corps Warfighting Publication No. 3-33.5 (Chicago: University of Chicago Press, 2007).

26. Joint Chiefs of Staff (JCS), *Foreign Internal Defense*, Joint Publication (JP) 3-22 (Washington, DC: JCS, 2021), https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_22pa.pdf?ver=2018-10-10-112450-103; and US Marine Corps, *Small Wars Manual*, Fleet Marine Force Reference Publication 12-15 (Washington, DC: Department of the Navy, 1940).

27. William A. Knowlton Jr., *The Surge: General Petraeus and the Turnaround in Iraq* (Washington, DC: National Defense University Press, 2010).

28. “President Obama on the Way Forward in Afghanistan and Pakistan,” White House, December 1, 2009, <https://obamawhitehouse.archives.gov/photos-and-video/video/president-obama-way-forward-afghanistan-and-pakistan>; US Department of Defense, *Enhancing Security and Stability in Afghanistan*, a report prepared in accordance with the National Defense Authorization Act, June 2020, https://media.defense.gov/2020/Jul/01/2002348001/-1/-1/1/ENHANCING_SECURITY_AND_STABILITY_IN_AFGHANISTAN.PDF, 29; and Jens Stoltenberg, “Speech” (speech, NATO Parliamentary Assembly, Lisbon, Portugal, October 11, 2021), https://www.nato.int/cps/en/natohq/opinions_187391.htm?selectedLocale=en.

what this decision meant. For ISAF, there would be no time to execute a conditions-based strategy.²⁹ Conversely, the Taliban knew it would suffer but merely had to wait for the preordained drawdown, which it did.

Although the US national security system appeared to work in Afghanistan, an astoundingly disconnected institutional apparatus left myriad contradictions unmanaged and magnified the complexities of the war.³⁰ Examples abound. Despite the prescriptions of FM 3-24, the US military was so oriented to warfighting even money became a “weapons system,” while foreign aid fostered a corrupt and dependent rentier state.³¹ Counternarcotics and counterinsurgency operated at cross-purposes, while illegal opium production remained the country’s second-largest source of revenue, much of it flowing into Taliban coffers.³² The United States paid handsomely for Pakistan’s cooperation while lacking the leverage to stem its duplicitous support for the Taliban.³³ Organizationally, while the primacy of political strategy and whole of government was praised excessively, friction-filled bureaucratic politics persisted in Washington and Kabul. In the absence of unity of command, unity of effort was a second-best solution as military predominance, combined with an insurmountable lack of civilian capacity and authority, remained a source of civil-military estrangement.

Despite sincere intentions, the United States never did overcome the course initially set under George W. Bush. To America, Afghanistan remained Chinatown, a battlefield more than it ever was a nation.³⁴ Nothing symbolized this analogy more than the ISAF fortifications that encircled the country. As expedient as they were for protecting troops and serving as operational

29. Craig Whitlock, “At War with the Truth,” in Whitlock, *Afghanistan Papers*.

30. Leslie H. Gelb and Richard K. Betts, *The Irony of Vietnam: The System Worked* (Washington, DC: Brookings Institution, 1979); Kenneth Katzman, *Afghanistan: Post-Taliban Governance, Security, and US Policy*, Congressional Research Service (CRS) Report RL30588 (Washington, DC: CRS, July 21, 2010); Todd Greentree, “Bureaucracy Does Its Thing: US Performance and the Institutional Dimension of Strategy in Afghanistan,” *Journal of Strategic Studies* 36, no. 3 (2013): 325–56; and Special Inspector General for Afghanistan Reconstruction (SIGAR), <https://www.sigar.mil>.

31. *Commander’s Guide to Money as a Weapons System: Tactics, Techniques, and Procedures*, handbook no. 09-27 (Fort Leavenworth, KS: Center for Army Lessons Learned, April 2009); Scott Smith and Colin Cookman, eds., *State Strengthening in Afghanistan: Lessons Learned, 2001–14* (Washington, DC: US Institute for Peace, 2016); and Kate Clark, *The Cost of Support to Afghanistan: Considering Inequality, Poverty and Lack of Democracy through the ‘Rentier State’ Lens*, special report (Afghanistan Analysts Network, May 2020), <https://www.afghanistan-analysts.org/en/reports/economy-development-environment/the-cost-of-support-to-afghanistan-new-special-report-considers-the-causes-of-inequality-poverty-and-a-failing-democracy/>.

32. Vanda Felbab-Brown, “Counterinsurgency, Counternarcotics, and Illicit Economies in Afghanistan: Lessons for State-Building,” in *Convergence: Illicit Networks and National Security in the Age of Globalization*, ed. Michael Miklaucic and Jacqueline Brewer (Washington, DC: National Defense University Press, 2013), 189–209; and *Counternarcotics: Lessons from the U.S. Experience in Afghanistan* (Arlington, VA: SIGAR, June 2018), <https://www.sigar.mil/interactive-reports/counternarcotics/index.html>.

33. Daniel Markey, “America’s Perennial Pakistan Problem: Why Washington Failed to Win Over Islamabad—and Prevent a Taliban Victory,” *Foreign Affairs*, September 9, 2021, <https://www.foreignaffairs.com/articles/afghanistan/2021-09-09/americas-perennial-pakistan-problem>.

34. Todd Greentree, “Triple Feature: A Letter from Kandahar,” *American Interest* VI, no. 5 (May/June 2011): 110–16, <https://www.the-american-interest.com/2011/05/01/triple-feature-a-letter-from-kandahar/>.

platforms, these ubiquitous, cheap, and temporary Hesco bastions lacked the one message Afghans needed most—a sense of enduring commitment.³⁵ In the end, they were easier to abandon than they were to erect.

After a long flirtation with negotiations, the alibi for exit that ubiquitous Afghan-American middleman Zalmay Khalilzad finally achieved in February 2020 was profoundly deficient. The agreement legitimized the Taliban by dealing with its leaders directly, humiliated the government by excluding it, and committed the United States to full withdrawal on dubious Taliban promises to dissociate itself from al-Qaeda and hold national peace talks.

The uncritically accepted notion that Afghanistan, somehow, was an endless war is a fallacy. What drives effort, sacrifice, and duration in war is the perception of what is at stake.³⁶ All wars end; how they end matters most.³⁷ Exit is not war termination, and negotiated withdrawal is not negotiated peace. These are matters of strategic choice. Three presidential administrations—Bush, Obama, and Trump—wished to lower the stakes in Afghanistan but did not. The Biden administration finally did so decisively. Withdrawal, accompanied by rapid government collapse and Taliban victory in the summer of 2021, was merely the culmination.

Afghanistan: The Small COIN Option

Could Afghanistan have been a success instead of a failure? An option to Big COIN was certainly available. But, like the lessons of Vietnam, this option was forgotten in the diversion to counterterrorism, except in the collective memory of Special Forces and a few others.³⁸ In the accidental creeping counterinsurgency early on, small COIN was never seriously considered. There is no guarantee it would have worked in Afghanistan, but there was a precedent.

El Salvador in the 1980s was the single major US commitment to counterinsurgency between Vietnam and the wars in Afghanistan and Iraq. The intervention was bloody, messy, and controversial, but it succeeded. Admittedly, this conclusion has long been disputed on the grounds that a decade of US support to the Armed Forces of El Salvador was insufficient to defeat

35. David Betz, "Citadels and Marching Forts: How Non-Technological Drivers Are Pointing Future Warfare towards Techniques from the Past," *Scandinavian Journal of Military Studies* 2, no. 1 (April 17, 2019): 33–34, <https://doi.org/10.31374/sjms.25>.

36. Carl von Clausewitz, *On War* (Ithaca, NY: Cornell University, 1973), 92.

37. Fred Charles Iklé, *Every War Must End* (New York: Columbia University Press, 1971).

38. Linda Robinson, "How Afghanization Can Work," Council on Foreign Relations, December 2, 2011, <https://www.cfr.org/expert-brief/how-afghanization-can-work>; H-Diplo, "Forum 9 on 'What Have We Learned? Lessons from Afghanistan & Iraq,'" H-Diplo/ISSF, July 8, 2015, <https://issforum.org/forums/lessons-afghanistan-iraq-2>; and Todd Greentree, "The Accidental Counterinsurgents: U.S. Performance in Afghanistan," in *Learning the Lessons of Modern War*, ed. Thomas G. Mahnken (Stanford, CA: Stanford University Press, 2020), 157–78.

the insurgents of the Farabundo Martí National Liberation Front, along with El Salvador's record of searing human rights violations and low-quality governance.³⁹ Nevertheless, to judge by results, the stalemate between the Armed Forces of El Salvador and Latin America's toughest guerrilla army proved sufficient to achieve US policy aims—Soviet/Cuban-backed communism was contained, and democracy took hold.

More than chance links the wars in El Salvador to Afghanistan. In the late 1970s, both countries spiraled into violent instability and became gray-zone cauldrons of the global Cold War.⁴⁰ At the same time the Carter administration began arming the Afghan mujahideen, it also laid the foundation of US support for insurgency and counterinsurgency in Central America. Reagan embraced and expanded the approach, even though the Iran-Contra scandal nearly wrecked his second term, while George H. W. Bush sustained it for over a decade with consistent strategy until the Cold War ended.⁴¹

The origin was the victory of the Sandinista National Liberation Front in Nicaragua over US-client dictator Anastasio Somoza Debayle in July 1979. Secured with Fidel Castro's active support, the party's victory was America's first failure to contain communist-backed revolution in Latin America since Cuba in 1959. Neighboring El Salvador, on fire with leftist insurrection and rightist repression, was the next Marxist-Leninist target. To avoid another loss in Central America, the Carter administration took advantage of a reformist coup in October 1979 to forge an uneasy partnership between the Salvadoran armed forces and the Christian Democrat Party with the aim of building a democratic center where none had survived before. The new government offered change, but state terrorism sponsored by government security forces and right-wing extremists also did its job, as the death squads eliminated revolutionaries and sowed fear among the population. By 1981, the war had morphed into a protracted insurgency. For the next three years, it was a close-run thing. What made the difference was US commitment to a political-military strategy, dubbed "reform with repression," in which counterinsurgency

39. Andrew J. Bacevich et al., *American Military Policy in Small Wars: The Case of El Salvador*, special report (Cambridge, MA: Institute for Foreign Policy Analysis, 1988); Walter C. Ladwig III, *The Forgotten Front: Patron-Client Relationships in Counterinsurgency* (New York: Cambridge University Press, 2017), 217–88; and Ryan T. Baker, "El Salvador, 1979–92: Revisiting Success," in Berman and Lake, *Proxy Wars*, 137–58.

40. Raymond L. Garthoff, *Détente and Confrontation: American-Soviet Relations from Nixon to Reagan* (Washington, DC: Brookings Institution Press, 1985); Westad, *Global Cold War*; Robert Strausz-Hupé et al., *Protracted Conflict: A Challenging Study of Communist Strategy* (New York: Harper Colophon Books, 1959); Frank G. Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges," *PRISM* 7, no. 4 (November 8, 2018): 30–47; and Linda Robinson et al., *Modern Political Warfare: Current Practices and Possible Responses* (Santa Monica, CA: RAND Corporation, 2018).

41. John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (Oxford, UK: Oxford University Press, 2005); and Todd Greentree, *Crossroads of Intervention: Insurgency and Counterinsurgency Lessons from Central America* (Westport, CT: Praeger Security International, 2008).

complemented and reinforced state-building.⁴² The joint venture between Americans and Salvadorans was hardly friction free and, compared with arming insurgent proxies, required entirely different types of responsibility and trust.

The tragedy of Vietnam was still fresh in the minds of the American public and armed forces and proved a major strategic constraint. Aversion to casualties and the prospect of another quagmire made it politically imperative that containing Soviet-backed expansion in the Western Hemisphere be pursued at the lowest possible level of cost and risk. On succeeding Carter in January 1981, Reagan's first foreign policy crisis was El Salvador. To secure support, the new administration reached an agreement with Congress to limit the Special Forces to 55 trainers. So sensitive was the issue that, on March 3, in Reagan's first television interview as president, Walter Cronkite's first question was, "Do you see any parallel in our committing advisers and military assistance to El Salvador and the early stages of our involvement in Vietnam?"⁴³ Despite fears to the contrary, Reagan assured the public he had no intention of sending US troops into combat in Central America. This was America's bright redline.

Counterinsurgency in El Salvador was more than a matter of keeping US boots off the ground. Small COIN substituted economy of force for combat power by focusing on training and assisting the Armed Forces of El Salvador.⁴⁴ By the mid-1980s, successive elections attracted strong popular turnouts, even in contested areas, and the performance of the Salvadoran Army gradually improved.⁴⁵ Concern in the United States relaxed as it became evident the situation had roughly stabilized.

Victory—in fact, any form of war termination—was no more a goal in Central America than it was in Afghanistan. After all, the Cold War was open-ended. Although El Salvador remained a source of controversy in Congress, with escalation off the table and ground troops absent, the Reagan and Bush administrations had sufficient means to manage US intervention for the duration of the conflict. By the time of the Soviet demise, authentic negotiations were underway between Farabundo Martí National Liberation Front insurgents and the Salvadoran government. With the signing of

42. William M. LeoGrande and Carla Anne Robbins, "Oligarchs and Officers: The Crisis in El Salvador," *Foreign Affairs* 58, no. 5 (Summer 1980): 1084–1103.

43. "Excerpts from an Interview with Walter Cronkite of CBS News," Ronald Reagan Presidential Library and Museum, March 3, 1981, <https://www.reaganlibrary.gov/archives/speech/excerpts-interview-walter-cronkite-cbs-news>.

44. Fred F. Woerner, *Report of the El Salvador Military Strategy Assistance Team, 1981*, document now declassified, <https://nsarchive2.gwu.edu/nsa/DOCUMENT/930325.htm>; and T. E. Lawrence, Article 15, "Twenty-Seven Articles," *Arab Bulletin*, August 20, 1917.

45. Michael Childress, *The Effectiveness of U.S. Training Efforts in Internal Defense and Development: The Cases of El Salvador and Honduras* (Santa Monica, CA: RAND Corporation, 1995), https://www.rand.org/pubs/monograph_reports/MR250.html.

the Chapultepec Peace Accords in 1992, the war ended definitively. The Salvadoran civil war was protracted, but it was not endless.

Afghanistan: The Afghan Way of War

In association with considering the Small COIN option, an alternative course of action is available and raises the possibility America's longest war was unnecessary altogether. Such a counterfactual idea based on pure speculation would court skepticism and be of little value. In Afghanistan, however, not only did a concrete option exist, it was proposed for decision at the time but summarily rejected.

By mid-November 2001, the Taliban had signaled the fall of their emirate by abandoning Kabul. Mullah Omar—amīr al-mu'minīn, the Taliban's commander of the faithful—fled from Kandahar to Pakistan. This culminating point of victory, married to the formation of a new government in Bonn, should have led to war termination but regrettably did not.

As coalition forces searched for enemies and followed the American way of war, something else was happening. In accord with the very different Afghan way of war, thousands of Taliban, ranging from erstwhile cabinet ministers to young recruits, had ceased fighting and were streaming in to swear fealty to the winning side.⁴⁶ Karzai's fledgling government was prepared to agree not to punish them; they would be welcome to resettle in their communities while enjoying benefits such as keeping their AK-47s for protection and receiving help to reunify family members residing in Pakistan. Nearly all Taliban were Pashtun; in seeking to negotiate, they were recognizing the authority of their new leader, Hamid Karzai, who shared their Islamic identity and possessed traditional legitimacy, both as a Southern Pashtun aristocrat from the Popalzai tribe and by virtue of his consensual endorsement by *loya jirga* in Bonn.

Karzai had a long association with the Taliban. Even though they had assassinated his father in 1999 and had tried to kill him just weeks earlier, he called them "my brothers."⁴⁷ However unfathomable this reconciliation may have been to Westerners, it fit the fluid pragmatism of Afghan politics and was strategic. The intent was to pacify and separate

46. Robert Warburton, *Eighteen Years in the Khyber, 1879–1898* (London: John Murray, 1900); and Robert Johnson, *The Afghan Way of War: How and Why They Fight* (London: C. Hurst & Co., 2011).

47. Bette Dam, *A Man and a Motorcycle: How Hamid Karzai Became Afghanistan's President* (Utrecht, NL: Ipso Facto Publishers, 2014); and Hamid Karzai, "We Afghans Are Just Being Used against Each Other," interview by Susanne Koelbl, *Spiegel International*, May 22, 2021, <https://www.spiegel.de/international/world/former-afghanistan-president-hamid-karzai-we-afghans-are-just-being-used-against-each-other-a-81412b96-c7e5-4287-b423-fbc2b600f317>.

them from their Pakistani patrons while consolidating Karzai's leadership and establishing a basis to stabilize Afghanistan. Once the Taliban dispersed to their communities across southern and eastern Afghanistan, only limited security forces would be needed to ensure their loyalty and prevent them from reconstituting, even if some hardcore leaders remained on the other side of the border and continued to enjoy sponsorship from Pakistan's Inter-Service Intelligence, the ISI.⁴⁸

In December 2001, however, when Karzai and other Afghans advocated inviting a few Taliban representatives (vetted for their willingness to reconcile) to the Bonn conference, the Bush administration, along with non-Pashtuns from the Northern Alliance, vetoed the idea.⁴⁹ Seasoned UN negotiator Lakhdar Brahimi would later call this act the "original sin."⁵⁰ US leaders were simply unprepared to comprehend how magnanimity after victory could be the best way to terminate the war and bring order to Afghanistan. Instead, the CIA and special operations forces and willing Afghan partners set about killing or capturing the Taliban, thus provoking an insurgency where none had existed.⁵¹

Had this course of action been adopted, an entirely different set of strategic circumstances may very well have evolved. As reprehensible as the Taliban were, they had been defeated. They were not the enemy; al-Qaeda was. Even while counterterrorist operations continued, the United States and its allies should have focused on restoring order, training, and assisting Afghan security forces with more sustainable numbers, perhaps 50,000, while standing in the way of interference from Pakistan. We should have listened to the Afghans; it was their war to finish. Instead, by taking over, the United States caught the whirlwind. As Clausewitz observed, "in war too small an effort can result not just in failure, but in positive harm."⁵² The same is true of excessive force unwisely applied.

48. Author communications with Karzai family and allies in connection with duties as director of Strategic Initiatives Group, Regional Command – South, 2010–11.

49. Dobbins, *After the Taliban*, 157–58; James Dobbins, "Afghanistan Was Lost Long Ago: Defeat Wasn't Inevitable, but Early Mistakes Made Success Unlikely," *Foreign Affairs*, August 30, 2021, <https://www.foreignaffairs.com/articles/afghanistan/2021-08-30/afghanistan-was-lost-long-ago>.

50. Lakhdar Brahimi, Mary Sack, and Cyrus Samii, "An Interview with Lakhdar Brahimi," *Journal of International Affairs* 58, no. 1 (Fall 2004): 244.

51. Sarah Chayes, *The Punishment of Virtue: Inside Afghanistan after the Taliban* (New York: Penguin Press, 2007); Abdul Salam Zaeef, *My Life with the Taliban*, trans. Alex Strick van Linschoten and Felix Kuehn (London: C. Hurst and Co., 2011); Anand Gopal, *No Good Men among the Living: America, the Taliban, and the War through Afghan Eyes* (New York: Metropolitan Books, 2014); and Antonio Giustozzi, *The Taliban at War, 2001–2018* (London: C. Hurst & Co., 2019).

52. Michael Handel, "Corbett, Clausewitz, and Sun Tzu," *Naval War College Review* 53, no. 4 (Autumn 2000): 106–24.

Conclusion—A Failure of Judgment

Strategic failure in the Afghan war was not a case of how the weak win, but how the strong lose.⁵³ It was neither preordained nor a matter of chance. The United States took over because it could. Notwithstanding the urgency of combating terrorism, making war on the Taliban was a failure of judgment and not in the national interest.⁵⁴ Once again, the core of the problem was the long-attested and largely disregarded overmilitarization of American foreign policy.⁵⁵ Small COIN using the El Salvador model, which balanced political and military strategies while keeping US troops out of combat, could have avoided an unnecessary war. It was worth a try. The warning is specific—if one finds oneself accidentally fighting Big COIN, it is too late.

If the US military was the instrument of failure, the error was misconceiving the situation in Afghanistan and ignoring the basic dictates of strategy. Here, responsibility lies with key US decisionmakers who believed they were masters of a technology-driven revolution in military affairs endowed with boundless power to reshape the nature of war. This hubris, combined with the panic of 9/11 and the opening of a new theater in Iraq, explains but does not excuse their folly. They should have known better. Unconstrained by the political imperative that kept combat forces out of El Salvador, and like the US leaders, who with heedless arrogance, delivered disaster in Vietnam, they may have been brilliant, but they behaved as fools.⁵⁶ Next time, we can and we must do better.

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53. Ivan Arreguín-Toft, *How the Weak Win Wars: A Theory of Asymmetric Conflict* (Cambridge, UK: Cambridge University Press, 2005); and Roger Z. George and Harvey Rishikof, eds., *The National Security Enterprise: Navigating the Labyrinth*, 2nd ed. (Washington, DC: Georgetown University Press, 2017), 400.

54. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 88.

55. Komer, *Bureaucracy Does Its Thing*, 38–40; George F. Kennan, *The Kennan Diaries*, ed. Frank Costigliola (New York: W. W. Norton & Company, 2014), 742; and Robert Gates, “The Overmilitarization of American Foreign Policy: The United States Must Recover the Full Range of Its Power,” *Foreign Affairs* 99, no. 4 (July/August 2020): 121–32.

56. David Halberstam, *The Best and the Brightest* (New York: Random House, 1972).

Broken Nest: Detering China from Invading Taiwan

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ABSTRACT: Detering a Chinese invasion of Taiwan without recklessly threatening a great-power war is both possible and necessary through a tailored deterrence package that goes beyond either fighting over Taiwan or abandoning it. This article joins cutting-edge understandings of deterrence with empirical evidence of Chinese strategic thinking and culture to build such a strategy.

Introduction

Would the People's Republic of China (PRC) invade Taiwan if it meant risking war with the United States and its allies? In the past, it was clear Beijing had no appetite for starting a war over Taiwan its military could not win. Today, however, a growing number of US-based analysts are skeptical China can be deterred from attempting unification with Taiwan by force. They claim Chinese leaders no longer tremble at the prospect of the United States coming to the defense of Taipei because Beijing's top brass increasingly believes it would prevail in a war over the island.¹

Some of Taiwan's staunchest supporters argue for a strengthening of US commitments in response to China's growing confidence and assertiveness. One familiar recommendation is for Washington to trade its long-standing policy of "strategic ambiguity" (meant to leave both China and Taiwan guessing as to how the United States would respond in the event of war) for "strategic clarity" in favor of Taipei.² This view claims the threat of a Chinese invasion has grown only because the United States has failed to keep pace with China's rising power. If Beijing were convinced any move against Taiwan would be met with the full force of the US military, then the risk of war would drop precipitously.

While the United States no doubt has a strong interest in deterring a Chinese takeover of Taiwan, relying on the latent threat of a great-power war is the wrong approach. Not only is such a strategy becoming less credible as the regional military balance shifts in China's favor, but it also requires both

1. Oriana Skylar Mastro, "The Taiwan Temptation: Why Beijing Might Resort to Force," *Foreign Affairs* 100, no. 4 (July/August 2021): 58–67.

2. Richard Haass and David Sacks, "American Support for Taiwan Must Be Unambiguous: To Keep the Peace, Make Clear to China That Force Won't Stand," *Foreign Affairs*, September 2, 2020, <https://www.foreignaffairs.com/articles/united-states/american-support-taiwan-must-be-unambiguous>.

the United States and Taiwan to accept unnecessarily high risks as the price of maintaining a fragile peace. Instead, leaders in Washington and Taipei should develop a joint strategy of deterrence by punishment to convince their counterparts in China that, although Taiwan might be conquerable in the short term, its capture would trigger the imposition of unacceptable economic, political, and strategic costs upon Beijing. If done correctly, such a strategy could discourage a Chinese invasion of Taiwan while simultaneously lessening the chances of an unwanted great-power conflict, especially if combined with good-faith efforts by the United States to make the status quo more tolerable for both China and Taiwan.

The Threat of War

The US interest in preventing a PRC invasion of Taiwan is straightforward and compelling. If Taiwan fell to China, a successful democracy would be extinguished, and Beijing's geopolitical position in East Asia would be enhanced at the expense of the United States and its allies.³ Even analysts who caution against inflating the strategic importance of Taiwan accept the fact that . . . all things being equal, there are substantial costs and risks attached to abandoning Taipei to China.⁴ Yet, the United States obviously has a countervailing interest in avoiding war with Beijing.⁵ Such a conflict would be ruinous even if the United States *won*—a misleading term, perhaps, given even a military action that successfully averted a Chinese takeover of Taiwan would still leave the United States in the unenviable position of “becoming the permanent defense force for Taiwan.”⁶ Needless to say, with the changing military balance in East Asia, it is entirely possible the United States would lose.⁷ Of course, if a US-China war “went nuclear,” then the outcome could be nothing short of cataclysmic for people in the United States, Taiwan, China, and elsewhere.

No matter how much the United States wishes to preserve Taiwan's de facto independence, the costs of war mean US responses suffer from serious

3. Blake Herzinger, “Abandoning Taiwan Makes Zero Moral or Strategic Sense,” *Foreign Policy*, May 3, 2021, <https://foreignpolicy.com/2021/05/03/taiwan-policy-us-china-abandon/>.

4. Charles L. Glaser, “A U.S.-China Grand Bargain? The Hard Choice between Military Competition and Accommodation,” *International Security* 39, no. 4 (2015): 72–78.

5. Charles L. Glaser, “Washington Is Avoiding the Tough Questions on Taiwan and China,” *Foreign Affairs*, April 28, 2021, <https://www.foreignaffairs.com/articles/asia/2021-04-28/washington-avoiding-tough-questions-taiwan-and-china>; and Barry R. Posen, *Restraint: A New Foundation for U.S. Grand Strategy* (Ithaca, NY: Cornell University Press, 2014), 102–4.

6. Daniel L. Davis, “The US Must Avoid War with China over Taiwan at All Costs,” *Guardian*, October 5, 2021, <https://www.theguardian.com/commentisfree/2021/oct/05/the-us-must-avoid-war-with-china-over-taiwan-at-all-costs>. See also Andrew Scobell, “How China Manages Taiwan and Its Impact on PLA Missions,” in *Beyond the Strait: PLA Missions Other Than Taiwan*, ed. Roy D. Kamphausen, David Lai, and Andrew Scobell (Carlisle, PA: Strategic Studies Institute, 2008), 32–35.

7. Kyle Mizokami, “The U.S. Military ‘Failed Miserably’ in a Fake Battle over Taiwan,” *Popular Mechanics*, August 2, 2021, <https://www.popularmechanics.com/military/a37158827/us-military-failed-miserably-in-taiwan-invasion-wargame>.

credibility problems. Relying on an explicit or implicit threat of war to deter China might even be counterproductive if it leads Beijing to assess that the military balance across the Taiwan Strait permits an invasion. For example, it might be rational for Chinese leaders to order an assault if they had intelligence suggesting the United States would not fight—or would fight and lose.

In previous decades, the United States enjoyed clear military supremacy over China, and thus, American deterrence capabilities were more credible. For example, in June 1950, President Harry Truman interposed the Seventh Fleet between mainland China and Taiwan “to ‘neutralize’ the Taiwan Strait” and to discourage Chinese forces from attempting an amphibious attack.⁸ More than 40 years later, President Bill Clinton impressed America’s military superiority upon Chinese leaders with the dispatch of two carrier strike groups to the region—a show of force that, while successful in the short term, had the long-term effect of convincing China’s leaders to pursue massive investments in anti-ship ballistic missiles.⁹

Today, the United States has more difficulty engaging in such exercises of “deterrence by denial.”¹⁰ The People’s Liberation Army (PLA) is now powerful enough it probably could overrun Taiwan even if the United States intervened to defend Taipei. Both sides know this—or at least strongly suspect it. A Chinese analyst with connections in the PLA Navy told us the PLA’s goal for a successful invasion was 14 hours, while it projects the United States and Japan would require 24 hours to respond. If this scenario is close to being accurate, China’s government might well be inclined to attempt a *fait accompli* as soon as it is confident in its relative capabilities. This perspective is consistent with thinking expressed in the PLA’s 2013 *Science of Military Strategy*, which exhorts the nation “to strive to catch the enemy unexpectedly and attack him when he is not prepared, to seize and control the battlefield initiative, paralyze and destroy the enemy’s operational system and shock the enemy’s will for war.”¹¹

Even if the United States intervened before China could secure a *fait accompli*, Chinese strategists have growing confidence the United States

8. Abram N. Shulsky, *Deterrence Theory and Chinese Behavior* (Santa Monica, CA: RAND Corporation, 2000), 7–8.

9. Tai Ming Cheung, “Racing from Behind: China and the Dynamics of Arms Chases and Races in East Asia in the Twenty-First Century,” in *Arms Races in International Politics: From the Nineteenth to the Twenty-First Century*, ed. Thomas Mahnken, Joseph Maiolo, and David Stevenson (Oxford, UK: Oxford University Press, 2016), 247–69.

10. Glenn H. Snyder, *Deterrence by Denial and Punishment* (Princeton, NJ: Center of International Studies, 1959); and Michael J. Mazarr, *Understanding Deterrence* (Santa Monica, CA: RAND Corporation, 2018).

11. Shou Xiaosong, ed., 战略学 [Science of Military Strategy] (Beijing: Military Science Press, 2013), translated by the China Aerospace Studies Institute (Montgomery, AL: Air University, 2021), hereafter cited as *Science of Military Strategy*, 143.

would lose a war over Taiwan. If such a scenario played out, it would offer China a major victory in terms of domestic and international prestige—an enticing prospect for any leader, especially one intent on definitively reestablishing China as a great power. Chinese strategic thinking emphasizes the possibility and utility of limited wars and projects confidence in the ability of war handlers to bring such an engagement to a favorable political outcome. This strategy is precisely what the PRC attempted to execute in the Sino-Indian War in 1962, the Sino-Soviet border conflict in 1969, and the Sino-Vietnamese War in 1979. The fact that all of these operations were successful militarily but failures politically seems to go unnoticed.

China's geographic advantages and technological advances make it difficult for the United States to restore the credibility of a deterrence-by-denial strategy. At most, bolstering the number and type of US forces in the region could help reduce China's expectations of a quick and decisive victory. Beijing would not remain passive in the face of an expanded US military footprint around Taiwan. To maintain long-term strategic advantage, the United States must be willing to participate in an all-out arms race with Beijing—one that could not easily be won, and which would substantially reduce the chances of finding a diplomatic solution to the dispute. This possibility does *not* mean China is altogether undeterrable. What it *does* mean is deterrence must be based more on threats of penalties in response to an invasion (deterrence by punishment) rather than threats to prevent conquest from succeeding militarily (deterrence by denial). If penalties for invading Taiwan can be made severe and credible enough, Beijing could still be deterred from choosing such a course of action.¹²

Of course, America's current policy toward Taiwan is already partly based on the logic of deterrence by punishment—that is, an implicit threat to wage a war against China that might not be limited to the Taiwan Strait. The “AirSea Battle” concept, for example, included extensive strikes on the Chinese mainland.¹³ From the US perspective, however, this military-heavy version of deterrence by punishment is grossly unattractive. Not only does China have good reasons to doubt whether the United States would follow through with escalatory attacks, but it is not clear that China would emerge as the biggest loser even if such strikes were meted out and China responded, either asymmetrically or in kind. Moreover, even winning such a war would not provide the United States and Taiwan a permanent sustainable resolution to the issue of cross-Strait relations. We agree with Andrew Scobell's point that “for the

12. Evan Braden Montgomery, “Primacy and Punishment: US Grand Strategy, Maritime Power, and Military Options to Manage Decline,” *Security Studies* 29, no. 4 (2020): 769–96.

13. Jan van Tol et al., *AirSea Battle: A Point-of-Departure Operational Concept* (Washington, DC: Center for Strategic and Budgetary Assessments, 2010).

Taiwan issue to be resolved once and for all, the outcome must be satisfactory to Beijing.”¹⁴ Below, we propose a deterrence-by-punishment strategy that does not hinge upon the credibility of a US threat to wage a great-power war against China and which, while not offering a roadmap to a permanent resolution, at least promises to lower the costs of the status quo for all concerned.

Beijing’s Changing Calculus

It would be better for the United States and Taiwan if a Chinese invasion could be deterred without Washington having to threaten a great-power war. Below, we argue there are other options in this regard—options worth exploring. But first, it is useful to consider why China has adopted a more assertive position toward Taiwan in recent years. Informed analysts now assess there is a nontrivial chance of a Chinese invasion within the next decade. Why?

One reason is the military balance across and around the Taiwan Strait has shifted in Beijing’s favor. China’s much vaunted anti-access/area-denial capabilities mean the PLA now stands a greater chance of keeping US forces at bay than was feasible in the past, allowing the PLA to seize what it calls the “three dominances”: (1) localized command of the sea, (2) command of the air, and (3) command of information. In the event of war, China’s advanced radar systems and overwhelming missile firepower would now likely be enough to clinch victory in what Chinese strategists predict would be a “localized war under informationized conditions.”¹⁵ Chinese strategists have judged such a conflict as one of both high probability and high danger, and so for more than two decades the PLA has focused on preparing for such a scenario. From Beijing’s perspective, these preparations greatly reduce the cost of action against Taiwan. As the PLA continues to modernize and gain relative advantages over other actors in East Asia, the costs of such action will continue to decrease.

On the other side of the ledger, the cost of restraint has increased for China. The cost of restraint is a critical, but undertheorized, aspect of deterrence.¹⁶ It indicates the acceptability of the status quo—in this case, the acceptability of a prolonged irresolution to the dispute over Taiwan’s political status. For China, the cost of restraint is increasing as Taiwan moves further away from the mainland, particularly in terms of its core national identity. The assertiveness of Taiwan’s Democratic Progressive

14. Scobell, “How China Manages Taiwan,” 35.

15. Xiaosong, *Science of Military Strategy*, 123.

16. Kayse Jansen, “How Competition Undermines Deterrence” (graduate thesis, Missouri State University, 2021), <https://bearworks.missouristate.edu/theses/3666>.

Party and the associated decline of the Chinese Nationalist Party are concrete representations of this shift. Since the Taiwanese view developments in mainland China and Hong Kong with alarm—especially the PRC’s anti-democratic policies—it is increasingly difficult to envisage Taiwan and China “com[ing] together and mov[ing] forward in unison,” as Xi Jinping and other PRC leaders insist must happen.¹⁷ It is small wonder growing numbers of Taiwanese recoil at the idea of political union with Beijing, but if China perceives Taiwan as rejecting the principle of peaceful reunification, its leaders might see no option but to pursue a military solution.

Hawks in China blame the United States for encouraging what they see as Taiwan’s shift away from the 1992 consensus of “one China with different interpretations.”¹⁸ To them, US policies of reassurance seem increasingly provocative. Whereas the United States once professed an interest in upholding the status quo across the Taiwan Strait, China now suspects a more aggressive policy that places Taiwan back under the US defense umbrella, as it was before 1979. This perception is fueled by talk of Taiwan once again serving as a useful outpost for the “free world.”¹⁹

The factors pushing China toward an invasion are not ones the United States can easily forestall. China’s military gains can be blunted, but not reversed. Nor is it possible for Washington to alter Taiwan’s domestic politics or the fervor with which the PRC opposes the idea of indefinite Taiwanese independence. Yet there are levers US leaders could pull to make an invasion of Taiwan less desirable to China. First, the United States can raise the costs of action for China via a deterrence-by-punishment strategy that threatens Beijing, not with war, but with the frustration of its other national priorities.

Second, it can reduce the costs of restraint for China by making good-faith efforts to fulfill the spirit of the US-China rapprochement vis-à-vis Taiwan. These two goals can be pursued in tandem with a view to strengthening deterrence, enhancing the long-term stability of cross-Strait relations, and thereby furthering the national security interests of both the United States and Taiwan—and, perhaps, even the PRC. In what follows, we take each lever in turn.

17. Xi Jinping, “Speech at a Ceremony Marking the Centenary of the Communist Party of China,” *Qiusbi Journal* (English edition), July 1, 2021, https://en.qstheory.cn/2021-09/08/c_657713.htm; Yang Zhong, “Explaining National Identity Shift in Taiwan,” *Journal of Contemporary China* 25, no. 99 (2016): 336–52, <https://doi.org/10.1080/10670564.2015.1104866>; Qiang Xin, “Having Much in Common? Changes and Continuity in Beijing’s Taiwan Policy,” *Pacific Review* 34, no. 6 (2020): 926–45, <https://doi.org/10.1080/09512748.2020.1773908>; and Frédéric Krumbeyn, “The Human Rights Gap in the Taiwan Strait: How China Pushes Taiwan towards the US,” *Pacific Review*, September 1, 2020, <https://doi.org/10.1080/09512748.2020.1812699>.

18. Lindsay Maizland, “Why China-Taiwan Relations Are So Tense,” Council on Foreign Relations, updated May 10, 2021, <https://www.cfr.org/background/china-taiwan-relations-tension-us-policy>.

19. Ted Yoho, “Free World Must Embrace Taiwan,” *Taipei Times*, April 20, 2021, <https://www.taipeitimes.com/News/editorials/archives/2021/04/20/2003755998>.

The Broken Nest

A Chinese proverb asks, “Beneath a broken nest, how (can) there be any whole eggs?”²⁰ The proverb means if the United States cannot prevent China from seizing Taiwan by force, it should instead develop a strategy to convince China’s leaders an invasion would produce a peace more injurious than the status quo. As noted previously, the United States already incorporates the logic of deterrence by punishment into its overall Taiwan strategy. What distinguishes the broken nest approach from other deterrence-by-punishment proposals is that it does not rely upon America’s willingness to use military force; the strategy is unique in the sense that it has the potential to deter China from invading Taiwan while also reassuring all sides a great-power war is not being threatened by the United States.

Short of military reprisals, the United States could levy a number of penalties on Beijing. The most obvious first step is to make Taiwan more resilient to an invasion, such as through the purchase of the *right kind* of defensive weapons from the United States (for example, truck-mounted harpoons, mobile rocket systems, and surf-zone sea mines).²¹ Progress has been made recently in this regard.²² The more Taiwan can credibly threaten to wage a war of necessity to defend itself, the less the United States will have to threaten to wage its own war of choice. Leaders in Taipei must also convince Beijing it would face a long and costly struggle to repress Taiwan’s 23.5 million citizens.²³ At minimum, Beijing must anticipate widespread civil disobedience. More seriously, China could be made to expect guerrilla warfare in Taiwan and perhaps even the prospect of violence being exported to the mainland. At present, Taiwanese vary by how far they support fighting a “war of necessity” to defend their island.²⁴ For deterrence to work, it will be important for leaders in Taipei to

20. John S. Rohsenow, *ABC Dictionary of Chinese Proverbs* (Honolulu: University of Hawai’i Press, 2002), 102.

21. Patrick Porter and Michael Mazarr, *Countering China’s Adventurism over Taiwan: A Third Way* (Sydney: Lowy Institute, 2021), <https://www.lowyinstitute.org/publications/countering-china-s-adventurism-over-taiwan-third-way>; and William S. Murray, “Revisiting Taiwan’s Defense Strategy,” *Naval War College Review* 61, no. 3 (Summer 2008): 1–27.

22. Matthew Strong, “Harpoon Missile System Delivery to Taiwan Will Be Completed 2028,” *Taiwan News*, October 22, 2021, <https://www.taiwannews.com.tw/en/news/4322413>.

23. “Taiwan,” World Factbook, updated October 18, 2021, <https://www.cia.gov/the-world-factbook/countries/taiwan/>.

24. Yao-Yuan Yeh and Charles K. S. Wu, “When War Hits Home: Taiwanese Public Support for War of Necessity,” *International Relations of the Asia-Pacific* 21, no. 2 (May 2021): 265–93; and Chung-li Wu and Alex Min-Wei Lin, “The Certainty of Uncertainty: Taiwanese Public Opinion on U.S.-Taiwan Relations in the Early Trump Presidency,” *World Affairs* 182, no. 4 (November 11, 2019): 350–69.

consolidate domestic support for resisting Chinese aggression and to build resistance capabilities.²⁵

On its own, however, the expectation of facing a robust but eventually unsuccessful defense is unlikely to deter a Chinese invasion. Beijing must also be made to believe conquering Taiwan, while satisfying one core goal of the Chinese state, cannot be done without jeopardizing other core interests. In practice, this strategy means assuring China an invasion of Taiwan would produce a major economic crisis on the mainland, not the technological boon some have suggested would occur as a result of the PRC absorbing Taiwan's robust tech industry.²⁶

To start, the United States and Taiwan should lay plans for a targeted scorched-earth strategy that would render Taiwan not just unattractive if ever seized by force, but positively costly to maintain. This could be done most effectively by threatening to destroy facilities belonging to the Taiwan Semiconductor Manufacturing Company, the most important chipmaker in the world and China's most important supplier. Samsung based in South Korea (a US ally) is the only alternative for cutting-edge designs. Despite a huge Chinese effort for a "Made in China" chip industry, only 6 percent of semiconductors used in China were produced domestically in 2020.²⁷ If Taiwan Semiconductor Manufacturing Company's facilities went offline, companies around the globe would find it difficult to continue operations.²⁸ This development would mean China's high-tech industries would be immobilized at precisely the same time the nation was embroiled in a massive war effort. Even when the formal war ended, the economic costs would persist for years. This problem would be a dangerous cocktail from the perspective of the Chinese Communist Party, the legitimacy of which is predicated on promises of domestic tranquility, national resilience, and sustained economic growth.

The challenge, of course, is to make such a threat credible to Chinese decisionmakers. They must absolutely believe Taiwan's semiconductor industry would be destroyed in the event of an invasion. If China suspects Taipei would not follow through on such a threat, then

25. See Otto C. Fiala, *Resistance Operating Concept (ROC)* (MacDill Air Force Base, FL: Joint Special Operations University Press, 2020).

26. Rachel Esplin Odell et al., "Strait of Emergency?: Debating Beijing's Threat to Taiwan," *Foreign Affairs*, September/October 2021, <https://www.foreignaffairs.com/articles/china/2021-08-09/strait-emergency>.

27. Wei Sheng, "China Made 6% of Chips It Used in 2020: Report," *technode*, February 19, 2021, <https://technode.com/2021/02/19/china-made-6-of-chips-it-used-in-2020-report/>.

28. David Pierson and Michelle Yun, "The Most Important Company You've Never Heard of Is Being Dragged into the U.S.-China Rivalry," *Los Angeles Times*, December 17, 2020, <https://www.latimes.com/world-nation/story/2020-12-17/taiwan-chips-tsmc-china-us>.

deterrence will fail. An automatic mechanism might be designed, which would be triggered once an invasion was confirmed. In addition, Taiwan's leaders could make it known now they will not allow these industries to fall into the hands of an adversary.²⁹ The United States and its allies could support this endeavor by announcing plans to give refuge to highly skilled Taiwanese working in this sector, creating contingency plans with Taipei for the rapid evacuation and processing of the human capital that operates the physical semiconductor foundries.

Such a "broken nest" approach is not without precedent. Sweden made an analogous threat of selective scorched earth during World War II with reference to its iron ore mines—a key source for industrial war materials—as part of its overall strategy of anti-Nazi deterrence.³⁰ Taiwan's threat would become even more potent than Sweden's if Taipei made and publicized plans to target the mainland's chip-fabrication lines using cruise and ballistic missiles, including the Semiconductor Manufacturing International Corporation facility in Shanghai. A preplanned sanctions campaign against any chip exports to China, led by the United States but supported by South Korea and other allies, would enhance this approach.

No doubt the Taiwanese will have grave concerns about threatening China with a defensive war that likely cannot be won. The prospects of implementing scorched-earth and guerilla-warfare tactics will be similarly unappealing. It will therefore be a major challenge to make these threats credible to China, though perhaps not as difficult as convincing Beijing that Taiwan and the United States are willing to risk a great-power war over Taiwan's political status. Paradoxically, however, it is only by making these threats credible that they will never have to be carried out. In any case, the threats outlined above—even if carried out to the maximum extent—will be far less devastating to the people of Taiwan than the US threat of great-power war, which would see massive and prolonged fighting in, above, and beside Taiwan.

Nevertheless, it would be prudent to develop a deterrence-by-punishment strategy that does not entirely rely upon threats made by the Taiwanese. Other aspects of a this type of strategy might include economic sanctions and threats in coordination with America's regional allies, especially Japan (the actor in East Asia with the greatest disparity between latent and actualized

29. James D. Fearon, "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review* 88, no. 3 (September 1994): 577–92, <https://www.jstor.org/stable/2944796>.

30. M. Gunnar Hägglöf, "A Test of Neutrality: Sweden in the Second World War," *International Affairs* 36, no. 2 (April 1, 1960): 153–67.

power), to worsen China's long-term regional security environment.³¹ At minimum, the US government should take the lead in developing credible threats of economic sanctions and political isolation, focusing especially on the semiconductor sector—where many necessary high-tech inputs originate from a handful of American companies—leaving leaders in Beijing under no illusions about the punishments that would flow from an invasion of Taiwan. More severely, the United States might signal an attack on Taiwan would lead to a green light for allies such as Japan, South Korea, and Australia to develop their own nuclear arsenals. If China can be made to believe invading Taiwan will result in one or more additional nuclear powers aligning against it, then this possibility ought to be an effective deterrent.

Such threats would have the advantage of making the Taiwan issue not just a battle of wills between the United States and China, but a fundamental question of what China wants its place in the region and wider world to be. Does China want to provoke the ire of its Asian neighbors, or would it prefer to advance its ambitions of regional leadership and peaceful cooperation? Again, the purpose here must be to convince Chinese leaders invading Taiwan will come at the cost of core national objectives: economic growth, domestic tranquility, secure borders, and perhaps even the maintenance of regime legitimacy.

On their own, none of these expected punishments would suffice to deter a Chinese invasion of Taiwan. Taken together, though, they might prove effective. If calibrated properly, a deterrence-by-punishment strategy would make an attack irrational from the Chinese perspective. This result must be the goal of a US and Taiwanese joint strategy.

Reducing the Costs of Restraint

One possible objection to our argument is, since reunification with Taiwan is a long-standing objective of the Chinese state—a goal motivated by nationalism, irredentism, and the Chinese Communist Party's perpetual quest for domestic legitimacy—China's leaders will not pause to calculate costs and benefits when weighing a decision to invade Taiwan. If this view is correct, the possibility of deterring a Chinese invasion of Taiwan, whether by denial or by threats of punishment, is minimal indeed.

Analysts in the United States cannot rule out the possibility China might one day embark upon an invasion of Taiwan regardless of the costs. It would

31. Robert D. Blackwill and Philip Zelikow, *The United States, China, and Taiwan: A Strategy to Prevent War*, Council Special Report no. 90 (New York: Council on Foreign Relations, 2021), 45.

be wrong, however, for America to base its Taiwan policy upon the belief China's leaders are irrational, or to lock itself into a strategy that would be catastrophic if China acted recklessly. In the past, China has been persuaded the status quo across the Taiwan Strait is tolerable, despite Chinese strategists describing Taiwan as a "core interest" that admits no "room to maneuver."³² As noted previously, Beijing also recognizes other core interests such as national development, the pursuit of international prestige, and the maintenance of domestic stability—all of which might be jeopardized by an ill-judged conquest of Taiwan.³³

The Chinese Communist Party has two principal objectives with deadlines: to "basically realize" "socialist modernization" by 2035 and to become a "great modern socialist country" by 2049.³⁴ Given China's internal demographic, ecological, social, and economic challenges, these goals will be difficult for the PRC to accomplish. They will become impossible targets if a successful invasion of Taiwan is met with the punishments described above. The rest of the "China Dream" will similarly be thrown into disarray. Strategy is about balancing key interests—something Chinese leaders understand well.³⁵ In a 1975 meeting, Henry Kissinger and Mao Zedong discussed when Taiwan would return to the mainland. Mao said: "In a hundred years." Kissinger replied: "It won't take a hundred years. Much less." Mao then rejoined: "It's better for it to be in your hands. And if you were to send it back to me now, I would not want it, because it's not wantable. There are a huge bunch of counter-revolutionaries there."³⁶ The goal of the broken nest strategy should be to make Taiwan, given the PRC's broader interests, unwantable.

Still, Beijing must be reassured that choosing to forgo an invasion of Taiwan would not be tantamount to *losing* Taiwan. Raising the costs of a Chinese invasion must constitute only one part of the solution to the current strategic quandary; Taiwan and the United States must also move to ease China's costs of restraint. Washington must restate in unambiguous terms the status of Taiwan is undetermined, that the United States has no plans to support independent statehood for Taiwan, and it will not seek to shift the status quo using gray-zone tactics that violate the spirit of Sino-American

32. Xiaosong, *Science of Military Strategy*, 15.

33. Michael J. Mazarr et al., *What Deters and Why: The State of Deterrence in Korea and the Taiwan Strait* (Santa Monica, CA: RAND Corporation, 2021), 46.

34. Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era" (speech, 19th CPC National Congress, Beijing, October 18, 2017), https://www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf.

35. Xinhua News Agency, "Xi Jinping's Speech on the CCP's 100th Anniversary," 1 July 2021.

36. Mao Zedong to Henry A. Kissinger, memorandum, "Memorandum of Conversation between Mao Zedong and Henry A. Kissinger," October 21, 1975, Gerald R. Ford Presidential Library, National Security Adviser Trip Briefing Books and Cables for President Ford, 1974–76 (Box 19), accessed at Wilson Center Digital Archive, <https://digitalarchive.wilsoncenter.org/document/118072>.

rapprochement. Simultaneously, Washington must remain implacably opposed to a forcible resolution of the Taiwan question.

Unlike strategies placing the threat of military reprisal at their core, a deterrence-by-punishment strategy does not rely on the United States bolstering its military forces in Northeast Asia. This approach leaves the United States some room to adopt a force posture capable of reassuring allies such as Japan and South Korea about their collective defense, while also convincing both Taiwan and China the United States is truly committed to maintaining the status quo across the Taiwan Strait. It also frees the US military to divest itself from vulnerable bases in Japan that may on balance make great-power war more, rather than less, likely—via a preemptive Chinese attack in an active-defense situation. Shifting the burden of deterrence from military reprisal to non-military punishment might also reduce the likelihood of a war caused by miscalculation, while also removing the pretext that China’s buildup is a response to US and Taiwanese provocations.

Of course, there are dangers associated with reducing the US military footprint around Taiwan. Careful research and planning must be conducted in conjunction with regional partners to ascertain what level and type of US forward deployment would be necessary to reassure allies while also lessening the chances of war. There should be no drawdown of military forces until such a time as a credible deterrence-by-punishment strategy has been put in place; otherwise Beijing might perceive a window of opportunity to wage a successful attack. Additionally, Taiwan might be less encouraged to stage an independent fight against China if it no longer believes the United States would (or could) intervene on its behalf. That said, given reports about low morale in the Taiwanese Armed Forces, as well as low defense spending (around 2 percent of GDP), a shock to the status quo might be just what the situation requires. Regardless, relying less on threats of force is not the same as ruling out the use of force altogether. Ambiguity will always exist about whether the United States would use force in the event of a Chinese invasion of Taiwan.³⁷

37. Joshua Rovner, “Ambiguity Is a Fact, Not a Policy,” *War on the Rocks*, July 22, 2021, <https://warontherocks.com/2021/07/ambiguity-is-a-fact-not-a-policy/>.

Conclusion: Deterrence and Reassurance

The policy of the United States must be to discourage the use of military force to upend the status quo across the Taiwan Strait. US foreign policy, however, must also consider the reality of the situation: military deterrence is becoming less credible than in the past. Additionally, relying on military power to deter Chinese aggression requires the US and Taiwanese governments to burden their citizens with high risks. A new approach to deterrence is needed, one that relies less on the dangerous threat of military force than is presently the case.

A twofold strategy of raising the costs of breaking Taiwan's nest while faithfully maintaining the value of an unbroken nest is the most prudent way to deter a Chinese invasion of Taiwan and, thus, avoiding a great-power war. China must be made to believe there are no overall gains to be had from a military invasion of Taiwan, whereas there are considerable advantages to maintaining the status quo. In the final analysis, a strategy based purely—or even mostly—upon military deterrence cannot achieve these goals. Unless US leaders are truly willing to fight World War III in defense of Taiwan, they would do well to consider strategies of deterrence that do not rely upon the threat of a military reprisal. We have argued it is possible to imagine such an alternative strategy of deterrence—one that relies on nonmilitary means of severe punishment rather than an expectation of being able to repel militarily a Chinese invasion.

That said, we are clear-sighted about the difficulties of orchestrating a credible strategy of deterrence by punishment. Not least of all, a broken nest strategy means accepting China can likely conquer Taiwan if it chooses to do so. It also means laying plans to destroy key Taiwanese infrastructure at great economic cost. Nonetheless, we maintain China could probably conquer Taiwan even if the United States intervened. Moreover, the social and economic costs of a great-power conflict would dwarf the targeted demolition of Taiwan's semiconductor industry or the inevitable harms produced by an insurgency.

To conclude, the broken nest strategy hinges on the United States not taking any action that China's leaders would interpret as an act of war. In such a situation, if Beijing did consider the United States an active belligerent, it might initiate first strikes against US forces. This possibility must be considered seriously. There are few ways to deter a Chinese invasion of Taiwan that involve zero risk of conflict. For the next decade or so, the best way to deter Chinese aggression while lowering

the chance of a great-power conflict is to follow the path outlined above: if war, a broken nest; if peace, a tolerable status quo.

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Sino-Indian Border Disputes in an Era of Strategic Expansions

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ABSTRACT: The June 2020 clash between the People's Republic of China and India in the disputed Ladakh border area resulted from the strategic expansions of both powers. Like two bubbles expanding in a contained space, these expansions were bound to collide and cause friction. This article explains how the expansions precipitated the incident and might exacerbate border disputes in the future. In pondering implications, it recommends Washington pursue a Eurasia-focused policy embracing the disputed region.

On June 15, 2020, the People's Republic of China (PRC) and Indian troops engaged in a fight using fists and clubs close to Patrol Point 14 in the Galwan Valley in the disputed border area of Ladakh in the Himalayas. At least 20 Indian and 45 Chinese soldiers died in the clashes. According to Indian reports, PRC forces crossed the Line of Actual Control (LAC) that separates India-administered Jammu and Kashmir from PRC-administered Aksai Chin.¹ Beijing and Delhi claim these territories in parts or entirety and blamed each other for the incident, the first deadly clash since 1975.² The skirmish did not involve the use of firearms, which the powers banned in previous years. Despite an agreement to disengage, and a previous record of withdrawal after similar clashes, the situation has not returned to the status quo ante.³

Analysis of the strategic expansions of both powers reveals the larger dynamics which arguably made the June 15 incident inevitable. A strategic expansion involves policies and measures aimed at extending a state's political, economic, and military influence or control within and outside its borders. Such policies and activities are interconnected and mutually reinforcing but are harder to implement in a region riddled with border disputes. The PRC and India are both pursuing

1. "A Border Dispute between India and China Is Getting More Serious," *Economist*, May 28, 2020, <https://www.economist.com/asia/2020/05/28/a-border-dispute-between-india-and-china-is-getting-more-serious>.

2. Alyssa Ayres, "The China-India Border Dispute: What to Know," Council on Foreign Relations, June 18, 2020, https://www.cfr.org/in-brief/china-india-border-dispute-what-know?gclid=EAIaIQobChMI4IOj6K7c6gIVkgilCR1AJwmLEAAAYASAAEgL-dfD_BwE.

3. Special Correspondent, "LAC Standoff: India, China Hold Fourth Round of Consultations," *Hindu*, July 14, 2020, <https://www.thehindu.com/news/national/lac-standoff-indian-and-chinese-commanders-hold-talks-on-further-disengagement-in-eastern-ladakh/article32076879.ece>; Nick Reynolds and Sidharth Kaushal, "122185A Military Analysis of the Sino-Indian Border Clashes," *RUSI*, June 2, 2020, <https://www.rusi.org/explore-our-research/publications/commentary/military-analysis-sino-indian-border-clashes>; and Rajesh Roy, "India-China Border Standoff Turns Violent, with 20 Indian Soldiers Dead," *Wall Street Journal*, June 16, 2020, <https://www.wsj.com/articles/india-china-border-dispute-turns-deadly-11592305962>.

strategic expansion policies focused on the disputed Ladakh region and deploying capabilities to shape their geopolitical environments and facilitate their ongoing rise as great powers. The incident and the dispute thus represent the focal points at which the powers' strategic expansions interact. In this case, it does not matter whether the incident was a provocation or an accident, as the conflict's geopolitical premise rooted in the strategic expansions connotes a degree of inevitability.

Figure 1. Map of disputed borders and territory in the Himalayas
(Map courtesy of REUTERS Graphics)⁴

The notion of strategic expansion is especially illuminating in the context of the border dispute because India and China share the perception that each is a victim of exploitation by foreign powers; each also desires to remedy this legacy. As two of the world's oldest civilizations, both countries seek to regain a status befitting their size, population, and heritage; thus, each places considerable value on "territory, past wrongs and restitution."⁵ The "century of national humiliation" in China and the colonization and partition of India reinforce this commitment, with both powers seeking to reconstitute the areas they once controlled and do so within perceived borders so as to right the supposed wrongs caused by outside actors.⁶ The related efforts foster an environment conducive to border conflicts, as conceptions of "inherent

4. Alyssa Ayres, "China's Mixed Messages to India," *Asia Unbound* (blog), Council on Foreign Relations, September 17, 2014, <https://www.cfr.org/blog/chinas-mixed-messages-india>. Adapted by the authors.

5. Mohan Malik, *China and India: Great Power Rivals* (Boulder, CO: First Forum Press, 2011), 28.

6. John Garver, "The Unresolved Sino-Indian Border Dispute: An Interpretation," *China Report* 47, no. 2, (2011): 103, <https://journals.sagepub.com/doi/10.1177/000944551104700204>; Shreya Das, *The Sino-Indian Border Dispute: What Role for the European Union?* (briefing paper, European Institute for Asian Studies, 2014), https://www.eias.org/wp-content/uploads/2016/02/EIAS_Briefing_Paper_2014-2_Das.pdf; and Manjari Chatterjee Miller, *Wronged by Empire: Post-Imperial Ideology and Foreign Policy in India and China* (Stanford, CA: Stanford University Press, 2013), 110.

historical and contemporary greatness” are difficult to reconcile in the case of the contested borders.⁷

The latest border incident has implications for global security, Sino-Indian-Pakistani ties, and the United States, which has been retreating from its global security role over the past few years while increasingly directing its capabilities toward containing the PRC. Having never developed a robust Eurasia-focused policy featuring the Ladakh region, the United States’ ability to formulate a response to the incident has been limited. The strategic expansions of the PRC and India into the disputed Ladakh region (on a micro level encompassing political, economic, and military expansions) also have a bearing on America’s role as a guarantor of global security, which has hinged on its efforts to connect excluded regions to the international system.⁸ To shape the strategic expansions of the PRC and India, the United States must develop a policy with a focus on Central and South Asia strategies. Only then can it maintain its role as a global security guarantor in a world order increasingly influenced by the rise of Asian great powers.

Political Expansion

For India and the PRC, political expansion into the disputed border region of Ladakh refers to an elevated focus on policy making regarding the region at both national and local levels; promotion of the nations’ capacities to control local administrations in the territories under their de facto control by appointing and removing local officials and managing or setting local and trans-regional policy agendas; and actions by the governments to redefine or adjust the political and administrative status of the controlled territories in the disputed region.

In the case of the PRC, political expansion refers to the extension of political influence from the center of the country to its periphery in service of the “Chinese dream.”⁹ Beijing defines the dream as achieving a “great rejuvenation of the Chinese nation” by restoring its preeminence and

7. David M. Malone and Rohan Mukherjee, “India and China: Conflict and Cooperation,” *Survival* 52, no. 1 (February–March 2010): 137, [https://journals.sagepub.com/doi/10.1177/000944551104700205](https://www.tandfonline.com/doi/full/10.1080/00396331003612513?journalCode=tsur208& Garver, “Unresolved Sino–Indian Border”; Tsering Topgyal, “Charting the Tibet Issue in the Sino–Indian Border Dispute,” <i>China Report</i> 47, no. 2 (2011): 116, <a href=); and Brahma Chellaney, “Coming Water Wars: Beware the Future,” *International Economy* (Fall 2009): 38, https://www.international-economy.com/TIE_F09_Chellaney.pdf.

8. See Roman Muzalevsky, *China’s Rise and Reconfiguration of Central Asia’s Geopolitics: A Case for U.S. “Pivot” to Eurasia* (Carlisle, PA: US Army War College Press, 2015), <https://publications.armywarcollege.edu/pubs/2351.pdf>.

9. Patricia Kim, “Understanding China’s Military Expansion,” Pacific Council on International Policy, September 19, 2019, <https://www.pacificcouncil.org/newsroom/understanding-china%E2%80%99s-military-expansion>.

making it a “fully-developed great power by 2049.”¹⁰ Political expansion supports this “dream” by advancing and consolidating institutions of political and administrative control in peripheral, culturally different, and autonomous areas exhibiting separatist tendencies. The PRC exerts control over the political, cultural, and economic development agendas in these areas, making them adhere to the party’s core values, beliefs, policies, and strategic vision. Xinjiang and Tibet, bordering Ladakh and Aksai Chin, are examples which elucidate Beijing’s sensitivities (and India’s for that matter) when viewed through the prism of the incident and its strategic expansion.

On the one hand, China’s political expansion is an organic process. Beijing now has the capability to extend its political control to areas beyond the “Han core,” something it had struggled with after incorporating Tibet and Xinjiang in 1949.¹¹ Various threats and challenges also limited maneuverability in advancing national sovereignty claims during the Cold War.¹² On the other hand, aspects of the expansion are a directed process. This process has developed because Beijing is pursuing a balanced and secure national economic development by shrinking the gap between the prosperous eastern and poor western regions while building a secure base to project power on its western flank. This dual imperative is critical for the security of the PRC, which perceives advancing separatist forces along its entire frontier from inner Mongolia in the north and Taiwan and Hong Kong in the southeast to Tibet and Xinjiang in the northwest. This task is projected to grow in importance as economic growth slows and the elite look for new sources of economic growth, legitimacy, and power.

The perceived US efforts to foment separatism and contain Chinese expansion in the Indo-Asia-Pacific make the western flank even more important to Beijing’s grand strategy. These efforts also make the PRC less restrained regarding its territorial and sovereignty claims. Chinese actions in the disputed region include aims to change India’s strategic calculus regarding Delhi’s unfulfilled role of a counterbalance, push for a reinterpretation of the LAC, and deter India’s regional expansion while securing its own. India’s territorial constitutional changes in August 2019

10. Kim, “Understanding China’s Military Expansion.”

11. M. Taylor Fravel, “Power Shifts and Escalation: Explaining China’s Use of Force in Territorial Disputes,” *International Security* 32, no. 3 (Winter 2007/2008): 83, www.jstor.org/stable/30130518.

12. Aldo D. Abitol, “Causes of the 1962 Sino-Indian War: A Systems Level Approach,” *Josef Korbel Journal of Advanced International Studies* (Summer 2009): 82, <https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=1000&context=advancedintlstudies>; and Zhihua Shen and Julia Lovell, “Undesired Outcomes: China’s Approach to Border Disputes during the Early Cold War,” *Cold War History* 15, no. 1 (2015): 89–111, <https://www.tandfonline.com/doi/abs/10.1080/14682745.2014.932350>.

and military expansion in the disputed areas have only reinforced Beijing's negative perception of India's territorial claims over Ladakh, Aksai Chin, and Arunachal Pradesh.¹³ The country's political expansion has aggravated India's insecurity, prompting a race for political control in the region, which exacerbated the dispute and culminated in the incident.

Similarly, India's concerns about its sovereignty and China's territorial claims drive its political expansion. At the heart of India's concerns are power asymmetry vis-à-vis the PRC on the Tibet issue, the border disputes, and nuclear capabilities. Delhi considers Tibet a contested buffer state with geopolitical benefits.¹⁴ The region contains 40 percent of the PRC's mineral resources and the world's third-largest freshwater repository.¹⁵ It also provides nations controlling it with major advantages to project power toward the border with India or the rest of the China.¹⁶ Border tensions are exacerbated by the construction of dams on the rivers originating in Tibet as well as the regional expansions of both powers.¹⁷ Beijing's resistance to Delhi's interpretation of the McMahon Line as India's northeastern border with Tibet further aggravates the border disputes.¹⁸

Like the PRC in Xinjiang and Tibet, India is extending its political influence in the Muslim-dominated Jammu and Kashmir regions by resorting to nationalism, which has become a more potent force under the ruling Bharatiya Janata Party since it gained control of the administration in 2014.¹⁹ In 2019, India's Hindu nationalist government stripped Jammu and Kashmir of its status as an Indian state, breaking it into two territories directly governed by New Delhi.²⁰ It also divided its eastern Ladakh region into a separate union territory. India's minister of internal affairs then reaffirmed India's claim to Aksai Chin by stating "we are ready to give

13. Chaowu Dai, "China's Strategy for Sino-Indian Boundary Disputes, 1950–1962," *Asian Perspective* 43, no. 3 (2019): 435–57, <https://www.proquest.com/docview/2282990224/fulltextPDF/2C0ED2E7291C4EE6PQ/1?accountid=41510>.

14. Chellaney, "Coming Water Wars," 38; and Malone and Mukherjee, "India and China," 137–58.

15. Hongzhou Zhang, "Sino-Indian Water Disputes: The Coming Water Wars?," *WIREs Water* 3 (March/April 2016): 155–66, <https://onlinelibrary.wiley.com/doi/pdf/10.1002/wat2.1123>.

16. Topgyal, "Charting the Tibet Issue," 119.

17. Ayres, "China's Mixed Messages"; Manuel Vermeer, "War over Water? Tibet, the Sino-Indian Power Play and Potential Consequences for Asia," *ISPSW Strategy Series: Focus on Defense and International Security*, no. 432 (July 2016), https://www.ispsw.com/wp-content/uploads/2016/07/432_Vermeer.pdf; Das, *Sino-Indian Border Dispute*, 9; and Sudha Ramachandran, "India's Worrying Border Infrastructure Deficit," *Diplomat*, June 19, 2014, <http://thediplomat.com/2014/06/indias-worrying-border-infrastructure-deficit/>.

18. Abitol, "1962 Sino-Indian War."

19. Dai, "China's Strategy."

20. Zeba Siddiqui and Fayaz Bukhari, "India, China Clash over Kashmir as It Loses Special Status and Is Divided," *Reuters*, October 31, 2019, <https://www.reuters.com/article/us-india-kashmir/india-PRC-clash-over-kashmir-as-it-loses-special-status-and-is-divided-idUSKBN1XA0M9>.

our lives for [Aksai Chin].”²¹ Beijing almost certainly factored this statement in any decision to initiate or respond to the actions along the LAC.

Since the regional balance of forces favors China and Pakistan, India views the extension of its political influence in the north as necessary to secure its northern flank while also challenging the PRC’s assertive engagement in the Indo-Asia-Pacific. To that end, India has sought to enhance its engagement with Afghanistan, Bhutan, and Nepal. Its perceived need to catch up has in turn elevated Beijing’s security concerns, making incidents such as the June 15 clash more likely. Sino-Indian and Pakistani-Indian border disputes are dangerous because their unstable interdependence, marked by trilateral perceptions and unequal capabilities, lends itself to a possible armed confrontation involving not two but three nuclear armed states.

Economic Expansion

The economic expansion of both powers refers to the promotion of economic and development policies in and beyond the disputed border region of Ladakh. Unlike political expansion, which focuses on domestic development within a perceived geopolitical space, economic expansion has a pronounced transregional component supporting the countries’ internal and external expansion. Importantly, the expansion in both cases is meant to shore up state legitimacy, communist or nationalist rule, and the countries’ nationalist economic agendas.²² These agendas eventually collide in domestic and regional environments, accentuating the border disputes amid the spike in regional economic infrastructure development. The expansions thus serve as sources of tension that spill into border conflicts. Defining how these expansions interact is key to ensuring a smoother reconfiguration of the Western-led global economic order to one potentially dominated by Asian powers in the coming decades.²³

To fuel its global economic expansion, the PRC uses the Belt and Road Initiative, which entails more than \$1 trillion in infrastructure investments in more than 60 countries (including the regions disputed with India).²⁴ The initiative’s maritime and land components are linked by the China-Pakistan Economic Corridor, which facilitates Beijing’s Western Development Strategy.

21. Press Trust of India, “PoK, Aksai Chin Part of J&K; Will Give Life for It: Amit Shah in Lok Sabha,” *Business Standard*, December 5, 2019, https://www.business-standard.com/article/pti-stories/pok-aksai-chin-part-of-jk-will-give-life-for-it-shah-in-ls-119080600532_1.html.

22. Malone and Mukherjee, “India and China.”

23. Roman Muzalevsky, *Strategic Landscape, 2050: Preparing the U.S. Military for New Era Dynamics* (Carlisle, PA: US Army War College Press, 2017), <https://publications.armywarcollege.edu/pubs/3362.pdf>.

24. Andrew Chatzky and James McBride, “China’s Massive Belt and Road Initiative,” Council on Foreign Relations, January 28, 2020, <https://www.cfr.org/background/chinas-massive-belt-and-road-initiative>.

India increasingly views the PRC's economic expansion in the border region as incompatible with its own, not least due to a growing trade imbalance. India has not joined the Belt and Road Initiative, which has also raised concerns about Beijing's agenda in Myanmar, Nepal, and even Pakistan.²⁵ India has been apprehensive about the China-Pakistan Economic Corridor because it passes west of the Daulat Beg Oldie military base via the Gilgit-Baltistan region, which is disputed by Delhi and Islamabad, and because it legitimizes Pakistan and China's political and economic expansions. Prior to the border incident, Delhi directed domestic companies "to avoid using Chinese equipment to upgrade the 4G networks."²⁶ Following the border clash, and amid growing economic tensions in the bilateral relationship, it banned the use of Chinese applications and is considering further restrictions on the use of Chinese telecommunications equipment.²⁷ The economic tensions against the backdrop of the political expansions in the contested areas serve to increase misperceptions and prospects of border incidents.²⁸ Augmented by the powers' economic expansions in each other's recognized and disputed areas, the economic tensions contributed to the border clash—which, in turn, brought the tensions to a new level.

As Beijing advances economic policies in the southwest and northwest, Delhi leverages its Connect Central Asia policy to redefine the northern periphery and match these economic advances. Several major factors, however, constrain the policy. India has outlined a plan for developing and integrating the union territories with the rest of India, but the disputed region features mountainous terrain and high altitudes, making economic activities difficult to organize and sustain. India also has no border with Afghanistan and would have to rely on Pakistan to unleash the full potential of its regional and transregional economic policies. Finally, India's economy is \$10 trillion smaller than China's economy and could fall further behind absent major reforms.²⁹ Still, Delhi continues to press forward with economic expansion in the region while strengthening economic, political, and military ties with countries in the Indo-Asia-Pacific, especially Australia, Japan, Vietnam, and the United States.

25. Kim, "Understanding China's Military Expansion."

26. Tridiv Singh Maini, *China, India and the Galwan Valley Clashes: What Can India Do?* (strategic analysis paper, Future Directions International, 2020), <https://www.futuredirections.org.au/publication/china-india-and-the-galwan-valley-clashes-what-can-india-do/>.

27. Rajesh Roy and Shan Li, "India Bans TikTok, Dozens of Other Chinese Apps after Border Clash," *Wall Street Journal*, June 30, 2020, <https://www.wsj.com/articles/india-blocks-dozens-of-chinese-apps-including-tiktok-following-border-clash-11593447321>; and Ayres, "China's Mixed Messages."

28. Ashley J. Tellis, "Hustling in the Himalayas: The Sino-Indian Border Confrontation," Carnegie Endowment for International Peace, June 4, 2020, <https://carnegieendowment.org/2020/06/04/hustling-in-himalayas-sino-indian-border-confrontation-pub-81979>.

29. Walter Russell Mead, "India Is a Natural U.S. Ally in the New Cold War," *Wall Street Journal*, May 27, 2020, <https://www.wsj.com/articles/india-is-a-natural-u-s-ally-in-the-new-cold-war-11590600011>.

Military Expansion

For both countries, military expansion refers to a greater focus on military planning regarding the disputed border area of Ladakh and competing territorial claims, the development of military infrastructure, and the deployment of enhanced military capabilities in the region. These expansions stem from the comprehensive military buildups both powers have been pursuing over the past decade.

China's military expansion is meant to help the country become a world-class military by 2050, enabling it to protect its expanding economic interests, including those in Central and South Asia.³⁰ Beijing views Ladakh as an inalienable historical territory it must defend to protect its economic expansion while preventing India's expansion north and perceived US encroachment in the east. As a result, the PRC is reevaluating its "Active Defense" approach, seeking to preempt threats of attacks—not just attacks—along its perimeter to deter opponents.³¹ Its military planners are also paying more attention to the southwest region and to India.³²

In recent years, Beijing has significantly upgraded military infrastructure in the disputed region.³³ It has built 58,000 kilometers of railway and road systems, five air bases, and supply hubs across Tibet to improve rapid reaction and counterterrorism capabilities.³⁴ The network links to several major highways crisscrossing the country—Central Highway, Eastern Highway, Yunnan-Tibet Highway, and Western Highway—and is further connected to the PRC-Pakistan Karakoram Highway and the disputed Aksai Chin region. Aksai Chin is controlled by China and separated from Indian-administered areas of the disputed Ladakh by the LAC. Many of the network's roads run close to or beyond the LAC—areas India considers its territory. To improve military deployments, the Chinese have also extended rail lines close to the Indian border.³⁵

During the border conflict with India on June 15, the PRC likely occupied multiple new geographic positions to ensure greater protection of the China National Highway 219 (G219) linking Xinjiang and Tibet and the China National Highway 314 (G314) connecting China to

30. Kim, "Understanding China's Military Expansion."

31. See M. Taylor Fravel, *Active Defense: China's Military Strategy since 1949* (Princeton, NJ: Princeton University Press, 2019).

32. Antara Ghosal Singh, "What Is China Saying about the China-India Border Stand-Off?," *Diplomat*, June 2, 2020, <https://thediplomat.com/2020/06/what-is-china-saying-about-the-china-india-border-stand-off/>.

33. Shivangi Borah, "Behind Doklam Lies an Uneven Infrastructure Race between China and India," *New Perspectives in Foreign Policy*, no. 14 (Fall 2017), <https://www.csis.org/nppf/behind-doklam-lies-an-uneven-infrastructure-race-between-china-and-india>; and Ayres, "China's Mixed Messages."

34. Das, *Sino-Indian Border Dispute*.

35. Das, *Sino-Indian Border Dispute*.

Pakistan.³⁶ It may have also done so to prevent India from building its own infrastructure and using “the 255 km Darbuk-Shyok-Daulat Beg Oldie road.”³⁷ Completed in 2019, this road allows for rapid military deployment to the LAC.³⁸ India’s construction of offshoot roads may have aggravated Beijing’s concerns, triggering the alleged incursions.³⁹ The PRC then used the territorial gains as “a form of coercive issue linkage,” pressuring India on the “disputed territories to secure concessions” on border-related or non-border-related issues in other geographic areas.⁴⁰ China could thus be looking to pressure India to stay away from Nepal and roadbuilding in the eastern sector to prevent Delhi from expanding its influence there.⁴¹ The disengagement, which has involved only select positions abandoned by the Chinese since the clash of June 15, lends credence to this argument.

While India’s regional military expansion has proceeded more slowly than China’s, many projects have been coming online over the past two years, unnerving Beijing.⁴² India has completed the construction of most of the 73 roads under the “India-China Border Roads initiative.”⁴³ The Darbuk-Shyok-Daulat Beg Oldie Road now enables Delhi to move military assets close to the contested areas along the LAC—a key change considering the People’s Liberation Army’s own rapid deployment capacity.⁴⁴ India’s military was long focused on “insurgency in Kashmir and the Naxalite uprising,” leaving it vulnerable to perceived military threats from China. The PRC’s recent military expansion in Xinjiang, Tibet, and the south has prompted Delhi to increase “manpower for the [country’s] Indo-Tibetan Border Police,” to strengthen the capabilities of its “Eastern Air Command,” and “expand [its] air bases” in the region.⁴⁵

In upgrading its military potential, India has increased the capabilities of its “airmobile 17 Mountain Strike Corps.”⁴⁶ Once it completes its military modernization, India could deploy more forces near its border with

36. Das, *Sino-Indian Border Dispute*.

37. Marcelo Duhalde, Dennis Wong, and Kaliz Lee, “India-China Border Clash Explained,” *South China Morning Post*, July 2, 2020, <https://multimedia.scmp.com/infographics/news/world/article/3091480/China-India-border-dispute/index.html>.

38. Duhalde, Wong, and Lee, “India-China Border Clash.”

39. “Border Dispute between India and China”; and Derek Grossman, “Chinese Border Aggression against India Likely Unrelated to Pandemic,” *Diplomat* (blog), RAND, July 6, 2020, <https://www.rand.org/blog/2020/07/chinese-border-aggression-against-india-likely-unrelated.html>.

40. Reynolds and Kaushal, “Military Analysis.”

41. Singh, “China-India Border Stand-Off?”

42. Reynolds and Kaushal, “Military Analysis.”

43. Borah, “Behind Doklam,” 40.

44. Reynolds and Kaushal, “Military Analysis.”

45. Das, *Sino-Indian Border Dispute*.

46. Reynolds and Kaushal, “Military Analysis.”

the PRC, whose troops are mostly positioned deeper inland.⁴⁷ The PRC may have initially sought to alter the status quo in the Galwan Valley by gaining whatever military advantages it could (in complex terrain) in the areas it now controls.⁴⁸ After all, India's military expansion into Ladakh could enable it to sustain forward deployment closer to the PRC's borders, thereby eroding some of the PRC's advantages.⁴⁹ Pointedly, Colonel Zhang Shuili, a spokesperson for the Chinese military's Western Theater Command, said the PRC had always maintained sovereignty over the Galwan Valley, despite retreating from the area after a war with India in 1962.⁵⁰

India's regional military expansion and attempts to match the PRC in military infrastructure building are predicated on a need to protect itself in a two-front war. The result is an unstable "arms race" dynamic prone to miscalculations of intent and capabilities in the conditions of a security dilemma.⁵¹ India's relatively more acute threat perceptions, as well as a sense of injury and resentment against the PRC, exacerbate this dilemma.⁵² With both powers now possessing the capacity to wage large-scale war in the disputed area, this dynamic is even more menacing in terms of its risks and implications.

Implications

For decades, the western frontiers of the PRC and the northern frontiers of India were out of reach for both countries, but now ongoing expansions are threatening the status quo. Nowhere is this more apparent than in the disputed Ladakh, where both nations are expected to act more assertively as their strategic expansions leave them less room to maneuver. Absent a mutually agreed-upon *modus operandi*, the powers risk raising the bar of acceptable levels of violence—a dangerous prospect considering their status as nuclear-armed states. The region's terrain will influence decisions to initiate, sustain, freeze, or end a confrontation. A conventional or nuclear confrontation is not inconceivable and awareness of the risks might facilitate

47. Frank O'Donnell, *Stabilizing Sino-Indian Security Relations: Managing the Strategic Rivalry after Doklam* (paper, Carnegie-Tsinghua Center for Global Policy, 2018), <https://carnegieendowment.org/2018/06/21/stabilizing-sino-indian-security-relations-managing-strategic-rivalry-after-doklam-pub-76622>.

48. Reynolds and Kaushal, "Military Analysis"; and Tellis, "Hustling in the Himalayas."

49. Reynolds and Kaushal, "Military Analysis."

50. Niharika Mandhana, Rajesh Roy, and Chun Han Wong, "The Deadly India-China Clash: Spiked Clubs and Fists at 14,000 Feet," *Wall Street Journal*, June 17, 2020, <https://www.wsj.com/articles/spiked-clubs-and-fists-at-14-000-feet-the-deadly-india-china-clash-11592418242>; and "Border Dispute between India and China."

51. Jonathan Holslag, *China and India: Prospects for Peace* (New York: Columbia University Press, 2010), 141; and Abitol, "1962 Sino-Indian War," 76.

52. Tien-sze Fang, *Asymmetrical Threat Perceptions in India-China Relations* (Oxford, UK: Oxford University Press, 2013), <https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198095958.001.0001/acprof-9780198095958>; Neville Maxwell, "Why the Sino-Indian Border Dispute Is Still Unresolved after 50 Years: A Recapitulation," *China Report* 47, no. 2 (2011): 71–82, <https://journals.sagepub.com/doi/abs/10.1177/000944551104700202>; and Malik, *China and India*, 45.

a more effective mechanism to manage the border tensions. Both parties should signal clear intentions and avoid misperception traps that could invite further provocations and land grabbing. These actions are critical because both countries operate in dissimilar political environments and differ in their abilities to control national sentiment during conflict.

The border incident and conflict will prompt the PRC and India to adjust regional military balances and relations with neighboring countries, foreign powers, and institutions in response to each other's regional advances. Both will likely increase defense spending in the Ladakh region and adjoining areas, partially as an extension of growing military spending trends. Both will also boost engagement with neighbors along the shared perimeter to secure political, economic, and military advantages. Finally, both will reexamine their roles in multilateral institutions and adjust their relationships with regional and global powers to balance each other's strategic expansions.

The United States may try to use the border conflict to draw India into a strategic alliance explicitly opposing the PRC. India is unlikely to embrace the idea, instead positioning itself as an independent and self-sufficient power, drawing on its growing capabilities and historical legacy as a nonaligned movement leader during the Cold War. At that time, Delhi faced a choice of aligning with either the United States or the Soviet Union but chose to chart its own path and, just like Beijing, has treated the dispute on a bilateral basis. India appears wary of causing misperceptions in the PRC's calculus regarding a strategic partnership with Washington and is likely to opt for a soft balancing.⁵³

Yet, India's foreign policy approach, rooted in strategic autonomy, is becoming "more nuanced, more flexible and adaptable" as it comes increasingly under strain "because of the rise of a realist strand of thinking" driven by the rise of the PRC.⁵⁴ This strain presents an opening for the United States to pursue a strategic relationship with India and provides a counterbalance to China's advances in the Indo-Asia-Pacific and beyond. Ultimately, the United States should develop a robust policy on Ladakh involving a series of economic, political, and military initiatives in Central and South Asia. This approach will help Washington influence the strategic expansions of both powers while serving as a credible global security guarantor and integrator in the increasingly changing world order.

53. Amy Kazmin and Don Weinland, "Trump's Embrace of Modi Stokes India-China Stand-off in Himalayas," *Financial Times*, June 9, 2020, <https://www.ft.com/content/dd253671-ee10-4e51-b9c0-c3fa9c2134e4>.

54. Deepa Ollapally, "India: The Ambivalent Power in Asia," *International Studies* 48, no. 3–4 (2013): 201, <https://journals.sagepub.com/doi/abs/10.1177/0020881713485009>.

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Defeat Mechanisms in Modern Warfare

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ABSTRACT: This article explores the current debate about service and Joint operating concepts, starting with the Army's multi-domain operations concept. It argues for adaptations to an old operational design technique—defeat mechanisms; updates to Joint and service planning doctrine; and discipline regarding emerging concepts. Rather than debate over attrition versus maneuver, combinations of a suite of defeat mechanisms should be applied to gain victory in the future.

In 2018, the *National Defense Strategy* stressed the importance of creative operational concepts to regenerate a competitive advantage in today's geopolitical context.¹ New Joint and service concepts present an array of new theories and terminology to articulate future modes of warfare and shape tomorrow's capabilities. Recent concepts, such as multi-domain operations (MDO), have been developed to stimulate and guide the design and development of future US military capabilities. A debate in the academic literature has challenged the viability of these service concepts and even long-standing elements central to US military doctrine. At issue is the central basis for gaining victory in warfare, which is critical to Joint and service planning doctrine. Critics challenge the historical foundation of both service and Joint warfighting concepts, especially the shifts to moral and psychological factors, and stress putting more emphasis on attrition and physical destruction.

This essay reviews current conceptual efforts to better posture the US military for success in the emerging era of strategic competition. The opening section briefly examines an emerging debate over weaknesses in service and Joint operating concepts. It summarizes the Army's MDO operating concept and addresses two recent advanced concepts—decision-centric warfare and systems warfare—to underscore the use of cyber-enabled systems to produce advantageous effects at the operational level of war. The assessment section explores a refined suite of defeat mechanisms as the essential building blocks of testable operating concepts and offers a revised set based on Army and Marine doctrine as a means of improving US force development efforts. These mechanisms form the building blocks of a

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1. Thomas G. Mahnken, Grace B. Kim, and Adam Lemon, *Piercing the Fog of Peace: Developing Innovative Operational Concepts for a New Era* (Washington, DC: Center for Strategic and Budgetary Assessments, April 2019); and James Mattis, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018).

theory of victory that should be central to both operational plans and warfighting concepts.

Current Debate

Scholars have recently resurrected an old debate about the underlying concepts used in force development efforts. Heather Venable from Air University has noted an increased emphasis on the use of nonkinetic elements in warfare and the desire to seek cognitive effects including paralysis. Venable notes the historical underpinning for claims of paralysis is thin: “Never validated through rigorous historical study, these untested ideas have been removed from context and sprinkled ahistorically throughout US doctrine.”²

Normally, airpower advocates endorse seeking strategic paralysis, sometimes entirely by using kinetic means against economic targets.³ Venable, however, rightfully criticizes maneuver warfare theories and new concepts for having limited historical foundations. Her critique appears more targeted against operational paralysis in nascent Joint operating concepts and the infusion of maneuverist thinking, especially the stated objective of creating dilemmas for the adversary. Yet, the same thinking pervades recent Air Force doctrine.⁴

Other critics, like Franz-Stefan Gady, persuasively criticize the US Army’s emphasis on achieving strategic paralysis against major competitors. Gady argues US doctrinal thinking on future warfighting, which focuses on paralyzing an enemy by imposing multiple cognitive dilemmas through maneuver, needs to be rethought.⁵ He concludes that the proliferation of new intelligence, surveillance, target acquisition, and reconnaissance capabilities makes offensive military operations relying on maneuver formations far easier to detect and to counter. Rather than count on maneuvering to create dilemmas, a greater reliance on attrition is more likely to be effective. Finally, he argues the upper hand in cyberspace will go to the defense, and it will impede, if not successfully counter, maneuver in that domain. Moreover, he argues creating and exploiting “windows

2. Heather Venable, “Paralysis in Peer Conflict? The Material versus the Mental in 100 Years of Military Thinking,” *War on the Rocks*, December 1, 2020, <https://warontherocks.com/2020/12/paralysis-in-peer-conflict-the-material-versus-the-mental-in-100-years-of-military-thinking/>; and Michael Kofman, “A Bad Romance: US Operational Concepts Need to Ditch Their Love Affair with Cognitive Paralysis and Make Peace with Attrition,” *Modern War Institute* at West Point, March 31, 2021, <https://mwi.usma.edu/a-bad-romance-us-operational-concepts-need-to-ditch-their-love-affair-with-cognitive-paralysis-and-make-peace-with-attrition/>.

3. On strategic paralysis, see David S. Fadok, “John Boyd and John Warden: Air Power’s Quest for Strategic Paralysis” (thesis, Air University, 1995).

4. US Air Force, *Department of the Air Force Role in Joint All-Domain Operations (JADO)*, Air Force Doctrine Publication (AFDP) 3-99 (Maxwell Air Force Base, AL: Curtis LeMay Center for Doctrine Development and Education, 2020), https://www.dctrine.af.mil/Portals/61/documents/AFDP_3-99/AFDP%203-99%20DAF%20role%20in%20JADO.pdf.

5. Franz-Stefan Gady, “Manoeuvre versus Attrition in US Military Operations,” *Survival* 63, no. 4 (August–September 2021): 131–48.

of superiority” following penetration or paralysis—a core tenet of MDO—is more difficult to achieve in conventional military operations and in the cyber domain. Overall, Gady’s assessment counters the efficacy of MDO, as imposing paralysis in the physical domains will be far more challenging in future conventional military campaigns.

These critics share a strong emphasis on the physical and materiel aspects of armed conflict and a distinct skepticism about any moral, psychological, or cognitive sphere in warfare. Although Carl von Clausewitz, J. F. C. Fuller, and T. E. Lawrence are undoubtedly spinning in their graves, Gady’s arguments about the growing difficulty of conducting maneuver cannot be easily dismissed. Yet, the same was true at the Battle of Gettysburg in 1863 and the First Battle of the Somme in 1916, and military forces evolved their doctrine and tactics. The same type of evolution will be needed today. The key question for today’s service chiefs and concept writers is determining what organizational, conceptual, and technological changes should coevolve to best advance multi-domain operations to gain victory in the emerging operational environment? What strategies and sources of combat power will promote military effectiveness in this decade? The debate is an old polar distinction and presents a false dichotomy between the physical destruction via attrition or via maneuver, the latter of which is more efficient and broadly defined. As Brigadier General Huba Wass de Czege argued nearly four decades ago, the real world lies between—and you need both.⁶

The progenitor of this long-standing debate is the British military analyst Basil Henry Liddell Hart.⁷ Attrition lost its appeal in the trenches of World War I, and Liddell Hart’s studies were shaped by his own searing experiences in that conflict. He advocated indirect approaches to gain success, and he contended strategists should strive to think about paralyzing opponents. Liddell Hart asserted, “[I]n all decisive campaigns, the dislocation of the enemy’s psychological and physical balance has been the vital prelude to his overthrow.”⁸ At a higher plane, he argued the ultimate aim was to bring pressure on a government, “so that the sword drops from a paralysed hand.”⁹ His own visceral combat

6. Huba Wass de Czege, “Army Doctrinal Reform,” in *The Defense Reform Debate: Issues and Analysis*, ed. Asa A. Clark IV et al. (Baltimore: Johns Hopkins University Press, 1984), 103.

7. B. H. Liddell Hart, *Strategy*, 2nd revised ed. (New York: Meridian, 1991), 5–6; Richard M. Swain, “B. H. Liddell Hart and the Creation of a Theory of War, 1919–1933,” *Armed Forces & Society* 17, no. 1 (Fall 1990): 35–51; and Azar Gat, *A History of Military Thought: From the Enlightenment to the Cold War* (New York: Oxford University Press, 2001), 645–95.

8. B. H. Liddell Hart, *The Memoirs of Captain Liddell Hart*, vol. 1 (London: Cassell, 1967), 162–63.

9. Liddell Hart, *Strategy*, 212.

experience informed his desire to ensure Great Britain avoided the same grinding attrition in the next war.

Attrition as a strategy, with its attendant costs, was further criticized after Vietnam. Both the US Army and Marine Corps developed new doctrines, seeking to put the jungles and highlands of Southeast Asia behind them. The AirLand Battle concept sought to leverage new technologies, especially deep attack and precision strike, integrated with effective mechanized forces.¹⁰ The Marines began a long debate over what they called maneuver warfare, in which the writings of Vietnam veterans were prominent. Air Force Colonel John Boyd provided a very influential intellectual foundation for these ideas among Marines.¹¹ Boyd's thinking stressed moral and cognitive elements that were muted in US military theory. But he also emphasized the moral, cognitive, and physical dimensions of war were interrelated and interactive.¹² Advocates of maneuver warfare claimed all positive virtues of operational art and castigated attrition as the artless application of raw force. Richard Simpkin reflected this mindset in *Race to the Swift: Thoughts on Twenty-First Century Warfare*, with his pejorative jab at the "addicts of attrition" in contrast to the astute *masters of maneuver*.¹³ Today modern-day apostles of attrition are fighting back.

Yet, serious historians recognize the debate between attrition and maneuver as a specious argument, since a strategy of attrition may be a necessary approach under specific circumstances.¹⁴ Attrition, better described as physical destruction, is necessary but rarely sufficient component in warfare.¹⁵ Some reduction of adversary capability is required, not just to reduce physical assets but also to produce the psychological shock of lost advantage or a surprise that induces the opponent to recognize the continuation of the campaign is going to make the outcome ever more costly. The velocity and combinations of force set up the conditions for victory, not one form or another.

The real issue is the construction of operational concepts or plans that have a historically demonstrated or testable theory of victory. Critics have

10. Benjamin M. Jensen, *Forging the Sword: Doctrinal Change in the U.S. Army* (Stanford, CA: Stanford University Press, 2016), 74–86.

11. On Boyd's thinking, see Frans P. B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (New York: Routledge, 2006); and Antulio J. Echevarria II, *War's Logic: Strategic Thought and the American Way of War* (New York: Cambridge University Press, 2021), 169–92.

12. Echevarria, *War's Logic*, 177.

13. Richard E. Simpkin, *Race to the Swift: Thoughts on Twenty-First Century Warfare* (London: Brassey's Defence Publishers, 2000), 181.

14. On attrition, see Carter Malkasian, *A History of Modern Wars of Attrition* (Westport, CT: Praeger Publishers, 2002); and Cathal J. Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost* (New York: Oxford University Press, 2017).

15. Lamar Tooke, "Blending Maneuver and Attrition," *Military Review* 80, no. 2 (March–April 2000): 10–11; and J. Boone Bartholomees Jr., "The Issue of Attrition," *Parameters* 40, no. 1 (Spring 2010): 5–19, <https://press.armywarcollege.edu/parameters/vol40/iss1/1/>.

challenged the vital component of major concepts, and with reason. Plans or concepts should be built upon a theory of victory based on the application of a set of defeat mechanisms.¹⁶ These mechanisms form the requisite building blocks upon which we can construct a hypothesis for obtaining victory.

Possible Defeat Mechanisms

Army doctrine defines a defeat mechanism as “a method through which friendly forces accomplish their missions against enemy opposition. Army forces at all echelons use combinations of four defeat mechanisms: destroy, dislocate, disintegrate, and isolate.”¹⁷ While US Marine doctrine does not explicitly refer to defeat mechanisms, the terminology is commonly used and understood in discussions.¹⁸ The United Kingdom’s army doctrine does not employ defeat mechanisms as a term, but lists destruction, dislocation, and disruption as three ways land forces attack the moral and physical cohesion of the opponent.¹⁹

A possible suite of defeat mechanisms is depicted in figure 1. This matrix contrasts the means and desired effects of various mechanisms, offers an initial categorization schema, and accepts current Army doctrine except for dropping isolation in favor of disorientation and degradation. These two mechanisms seem highly relevant in an age of pervasive intelligence, surveillance, reconnaissance, and highly connected command and control (C2) systems.

Figure 1. Defeat/victory mechanisms

While this proposed set of mechanisms only modestly adapts the Army’s doctrine, it avoids the paralysis- and dilemma-creating elements in MDO

16. See Brad Roberts, *On Theories of Victory, Red and Blue*, Livermore Papers on Global Security No. 7 (Livermore, CA: Lawrence Livermore National Laboratory Center for Global Research, June 2020).

17. Army Field Manual (FM) 3-0, *Operations* (Arlington, VA: US Army, 2017), 1-21–1-22.

18. Marinus, “Defeat Mechanisms,” *Marine Corps Gazette* 105, no. 7 (July 2021): 101–6.

19. UK Army, *Land Operations*, UK Army Doctrinal Publication AC 71940 (Bristol, UK: British Ministry of Defence, 2017), 5–5.

and could be used to enhance Joint doctrine. These mechanisms should not be considered common terms. Instead, they need to be defined precisely and employed consistently within the profession's doctrinal and conceptual discourse.

Dislocation is a product of maneuver and creates a positional and temporal advantage by making the location and/or defenses of one's adversaries irrelevant or less useful.²⁰ It may force the opponents to move and expose their forces to attack or face being surrounded or isolated from support. Its ultimate effect is to deprive opposing commanders of the initiative and any advantage they initially held. Destruction is self explanatory.

In addition to these concepts, two other proposed defeat mechanisms—disorientation and degradation—are possible. One function of disorientation could include the injection of disinformation into, or corruption of, an adversary's command and control systems with spoofed data. Passive forms of deception and decoys might also be useful.

Degradation describes a reduced level of situational awareness or lower level of functionality in C2 and intelligence, surveillance, and reconnaissance systems. As suggested by John Arquilla, David Ronfeldt, and others, degradation could be the product of a kinetic attack or involve cyber operations.²¹ It captures effects that are probably temporary against a competitor with competent technological agility, who can reconstitute and adapt C2 systems over time. In Boyd's conception, this mechanism reduces the understanding or orientation of one's adversaries and slows their operating cycles and abilities to adapt. It provides an edge at the operational level of war.

This study now turns to what Army force developers and the Washington think-tank community are proposing in various operating concepts and how well they postulate an adequate theory of victory.

Key Concepts

Current US Army doctrine stresses the importance of gaining the initiative and leveraging it to attain advantage. The Army concludes its ability to place adversary assets at risk across the depth of the battle space can neutralize critical enemy functions and deny an opponent the ability to generate combat power. It also stresses the importance of generating dilemmas for one's opponents so they cannot execute counter responses. Creating dilemmas can

20. Robert R. Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle* (Novato, CA: Presidio Press, 1991).

21. John Arquilla and David Ronfeldt, eds., *In Athena's Camp: Preparing for Conflict in the Information Age* (Santa Monica, CA: RAND Corporation, 1997), 2.

have causal consequences for opposing commanders. As reflected in current Army doctrine, the combination of taking the initiative and presenting the enemy with multiple dilemmas forces enemy commanders to be reactive, drives them into untenable positions, and presses them into making costly mistakes.²²

In contrast with present doctrine, the Army's conceptual thinking about the future focuses on obtaining a capability overmatch through convergence and/or integration of capabilities—including nonkinetic ones—across multiple domains. The central defeat mechanism is not clear, but appears to be a new concept called “convergence,” defined as “the rapid and continuous integration of capabilities in all domains, the [electromagnetic spectrum] EMS, and information environment that optimizes effects to overmatch the enemy through cross-domain synergy and multiple forms of attack all enabled by mission command and disciplined initiative.”²³ According to this definition, convergence best describes what is being done by the Army but does not describe the impact on the adversary.

The US Army has used disintegration in past doctrine, defining it as “breaking the coherence of the enemy's system by destroying or disrupting its subcomponents (such as command and control means, intelligence collection, critical nodes, etc.), degrading its ability to conduct operations while leading to a rapid collapse of the enemy's capabilities or will to fight.”²⁴ We find a clearer logic in this statement, as well as a hypothesis on how to reduce the adversary's will or capacity to resist. Generating multiple dilemmas and inducing mistakes is a less clear causal argument for a successful defeat mechanism.

Multi-domain operations has received its share of criticism from various Army strategic and operational artists. For example, longtime Army thought leader Wass de Czege argues MDO's dilemma-centric theory of victory needs a more robust logic.²⁵ His overall assessment is correct. When the Army moved from AirLand Battle to multi-domain battle, clear thinking and historical analysis diminished as concept writers wrestled with new tools and technologies.

22. US Army, *Operations*, Army Doctrinal Publication (ADP) 3-0 (Washington, DC: US Army, 2019), 2-4–2-5.

23. US Army Training and Doctrine Command (TRADOC), *The U.S. Army in Multi-Domain Operations 2028*, TRADOC Pamphlet 525-3-1 (Washington, DC: US Army TRADOC, 2018), vii.

24. TRADOC Pamphlet 525-3-1 (2018), vii.

25. Huba Wass de Czege, *Commentary on “The US Army in Multi-Domain Operations 2028”* (Carlisle, PA: Strategic Studies Institute, 2020), 10–11, <https://publications.armywarcollege.edu/pubs/3726.pdf>.

Others find the notion of dominance to be vague.²⁶ In short, many Army strategists believe MDO requires more clarity.

The Joint warfighting community is also striving to define how to formulate a theory of victory in its concepts and doctrine. Some major combatant commands and at least one other service have embraced the creation of dilemmas as the ultimate objective. The US Indo-Pacific Command contends the US military can shape opponent decisions by “rapidly presenting the adversary with multiple dilemmas, degrading adversary leadership’s sense of control.”²⁷ The Air Force also argues in its latest doctrine, “The joint force of 2035 will instead place an adversary on the ‘horns of multiple dilemmas’ by swiftly applying different strengths to produce multiple approaches.”²⁸ Our allies appear to have agreed on dilemma generation as well. The United Kingdom’s integrated operating concept states, “We need to create multiple dilemmas that unhinge a rival’s understanding, decision-making and execution.”²⁹

Competing Alternatives

Two competing concepts have been offered to advance the development of an overarching Joint warfighting concept. One is decision-centric warfare (DCW), developed by Bryan Clark and a team of associates who claim attrition is obsolete. They argue a need now exists for novel “. . . metrics for military success in this world where it’s not about attrition anymore. It’s much more about decision-making and creating dilemmas for an enemy.”³⁰ In Clark’s view, the Department of Defense should “embrace a new theory of victory and operational concepts that focus on making faster and better decisions than adversaries, rather than attrition.”³¹ This approach is in line with what the Chief of Staff of the Army calls decision dominance.³² Clark’s solution enables faster and more effective decisions by US commanders, while simultaneously degrading the quality and speed of adversary decision making. Decision-centric warfare exploits emerging technologies

26. Amos C. Fox, *Getting Multi-Domain Operations Right: Two Critical Flaws in the U.S. Army’s Multi-Domain Operations Concept*, Land Warfare Paper No. 133 (Arlington, VA: Association of the United States Army, 2020).

27. Terrence J. O’Shaughnessy, Matthew D. Strohmeier, and Christopher D. Forrest, “Strategic Shaping: Expanding the Competitive Space,” *Joint Force Quarterly* 90, no. 3 (3rd Quarter 2018): 11.

28. US Air Force, *Air Force Future Operating Concept: A View of the Air Force in 2035* (Washington, DC: US Air Force, 2015), 7.

29. UK Ministry of Defence, *Integrated Operating Concept* (London: UK Ministry of Defence, 2021), 10.

30. Bryan Clark, “Analyzing New Military Technology,” interview by Tom Temin, Federal News Network, July 30, 2021, <https://federalnewsnetwork.com/defense-news/2020/07/analyzing-new-military-technology/>.

31. Bryan Clark, Dan Patt, and Harrison Schramm, *Mosaic Warfare: Exploiting Artificial Intelligence and Autonomous Systems to Implement Decision-Centric Operations* (Washington, DC: Center for Strategic and Budgetary Assessment, 2020), iii; and Bryan Clark, Dan Patt, and Timothy A. Walton, *Implementing Decision-Centric Warfare: Elevating Command and Control to Gain an Optionality Advantage* (Washington, DC: Hudson Institute, 2021).

32. US Army, *Army Multi-Domain Transformation: Ready to Win in Competition and Conflict*, Chief of Staff Paper (CSP) 1 (Washington, DC: US Army, 2021), 8.

such as AI, autonomous systems, and man-machine collaborations used to extend the reach, competency, and endurance of human operators. As with maneuver warfare, the core metrics of this approach would be the number of distinct dilemmas presented to the adversary and the speed with which they are imposed.³³

Here again we see the emphasis on dilemma generation as a means of confusing and paralyzing opponents. This approach, however, is not simply nonmateriel; physical destruction is embedded in the concept. Some dilemmas will be created by threatening physical destruction and materiel costs. As Clark amplified in a follow-on inquiry:

*We see attrition is an essential element, in the form of destruction and degradation, to achieve dislocation and disorientation. In some cases an enemy system or unit has to be destroyed or damaged to degrade enemy decision-making. More importantly, though, the enemy has to fear losses.*³⁴

To enable decision-centric warfare, the concept leverages destruction, distributed formations, dynamic aggregation and disaggregation of forces, marked reductions in signature, and counter-C2 intelligence, surveillance, and reconnaissance actions designed to offer an effective response or confound adversary understanding of our operations. Clark argues for a relative advantage in cognitive capacity and decision making, with enablers for protecting friendly C2 systems and leveraging the same technologies to attack, distort, and degrade the decision making of opposing commanders.

Systems Warfare

Former Deputy Secretary of Defense Robert Work developed a Joint warfighting concept he called “systems warfare,” drawn from his extensive study of warfighting concepts. The central idea of his concept is Joint forces should aim to field battle networks that “operate better and faster than adversary operational systems, and ones that cannot be destroyed like the battle networks used today.”³⁵ The concept builds upon the mature and now diffused precision-strike competition and explores new competitive pressures, such as exploiting today’s emerging seventh military revolution of autonomy and human augmentation as well as vulnerabilities generated

33. Clark, Patt, and Walton, *Implementing Decision-Centric Warfare*, 23.

34. Bryan Clark, correspondence with author, September 30, 2021.

35. Robert O. Work, “A Joint Warfighting Concept for Systems Warfare,” Center for a New American Security, December 17, 2020, <https://www.cnas.org/publications/commentary/a-joint-warfighting-concept-for-systems-warfare>.

by the Information Age.³⁶ As Work notes, “The ability to out-range an enemy has become far more difficult with the development of invisible system strike capabilities such as cyber, counter-AI, and electronic warfare.”³⁷ His concept reinforces the importance of information-strike capabilities as an element of combat power. The battle networks, rather than the major platforms, are the key weapons systems and they confront each other directly via long-distance virtual strikes.

Like DCW, Work promotes the development of capabilities such as human-machine battle networks to exploit AI-enabled autonomy at scale. He contends these human-directed and algorithm-enhanced networks will lead consistently to better decisions that are made and acted upon faster than any opponent. Like Clark’s DCW, systems warfare has both an offensive and defensive character. Not only will systems warfare give the Joint force a decisive advantage in its own OODA cycle, its networks would also work directly against their opponent’s battle networks via cyberattack.³⁸ The concept underscores the need to identify critical nodes or systems as part of the enemy order of battle to strike at and attrit the adversary’s command functions.

Work incorporates the attrition and/or destruction of other components of the adversary’s forces and explicitly includes attrition from firepower into his concept, with the qualification that:

*. . . the object of these fires is not about the annihilation of the enemy force, but of disrupting and destroying the inner workings of the opposing system of systems. The specific targets chosen are those that, if destroyed, will allow the Joint Force to gradually gain an information and decision advantage in a systems confrontation.*³⁹

Thus, disruption and destruction are the primary defeat mechanisms of this concept, in search of an information advantage we can exploit. Yet, the human element is not ignored in systems warfare. In fact, the concept

36. F. G. Hoffman, “Will War’s Nature Change in the Seventh Military Revolution?,” *Parameters* 47, no. 4 (Winter 2017–18).

37. Work, “Systems Warfare.”

38. Osinga, *Science, Strategy and War*, 189–231.

39. Work, “Systems Warfare.”

assumes the operational system with the best people and better (algorithmic) processes will be at an advantage and outperform the adversary.⁴⁰

Assessment

The strength in both systems warfare and decision-centric warfare lies in their ability to exploit the expected benefits of AI-enabled cyber operations. The application of AI-enhanced decision support systems or autonomous weapons in military operations is a potential game changer.⁴¹ These capabilities will be relevant to improved fires and enhanced maneuver. AI-driven robotic swarms offer a step change in maneuver capability that can operationalize a form of maneuver that overwhelms defenses in conventional military operations.⁴² The dislocation that such maneuvers can cause should be significant, and the kinetic effectiveness of simple drone attacks in recent conflicts is suggestive of what the future holds.⁴³ These concepts seek to gain and hold a competitive edge in AI/machine learning. Of course, AI will be a double-edged sword.⁴⁴ Artificial intelligence will both sharpen the sword and also mandate (and hopefully provide) a strong shield and thick deception filter.⁴⁵ Joint force development efforts must urgently come to grips with exactly how to best employ and defend against these new technologies.

Systems warfare and DCW both exploit what European scholars call the synthetic element of modern warfare, which some scholars expect will alter warfare.⁴⁶ Decision-centric warfare stresses the integration of human thinking and machine speed—exploiting the best of human direction, directly or indirectly, while still maximizing rapid decision making. This thinking is consistent with assertions from recent scholarship arguing “the combination of the synthetic and the human is giving birth to new ways of war.”⁴⁷ Systems warfare disrupts, degrades, or destroys an adversary’s major command and control systems at the operational level and includes more traditional firepower directed at key nodes and critical vulnerabilities.

40. Work, “Systems Warfare.”

41. Kenneth Payne, *I Warbot: The Dawn of Artificially Intelligent Conflict* (London: Hurst, 2021). For a critical examination, see Sam J. Tangredi and Greg Galdorisi, eds., *AI at War: How Big Data, Artificial Intelligence, and Machine Learning Are Changing Naval Warfare* (Annapolis, MD: Naval Institute Press, 2021).

42. John Arquilla and David Ronfeldt, *Swarming & the Future of Combat* (Santa Monica, CA: RAND/National Defense Research Institute, 2000).

43. Franz-Stefan Gady and Alexander Stronell, “What the Nagorno-Karabakh Conflict Revealed about the Future of Warfighting,” International Institute for Strategic Studies, *Expert Commentary* (blog), November 23, 2020, <https://www.iiss.org/blogs/analysis/2020/11/nagorno-karabakh-and-the-future-of-war>.

44. National Intelligence Council (NIC), *Global Trends 2040: A More Contested World* (Washington, DC: NIC, March 2021), 67.

45. See the recommendations of the National Security Commission on Artificial Intelligence (NSCAI), *Final Report* (Arlington, VA: NSCAI, 2021), <https://www.nscai.gov/2021-final-report/>.

46. See introduction in Rob Johnson, Martijn Kitzen, and Tim Sweijts, eds., *The Conduct of War in the 21st Century: Kinetic, Connected and Synthetic* (New York: Routledge, 2021).

47. See conclusion in Johnson, Kitzen, and Sweijts, *Conduct of War*, 300.

While both systems warfare and DCW merit serious consideration by Joint force developers and policy officials, each approach could benefit from more historical analysis and a clearly stated theory of victory. At present, they offer assertions of operational advantage that have merit given the role of battle networks in modern forces. The value of AI in making better and faster decisions in an adversarial context remains speculative. However, it is worthwhile to posit AI as a desired capability in a future operating concept for validation in both gaming and experimentation.

Modernizing Defeat Mechanisms

Having examined the inherent theories of victory and their related defeat mechanisms in current concepts, this section explores how to update these mechanisms and obtain a common lexicon for their utilization in concepts and doctrine. In the past, such mechanisms represented the building blocks of operations by which commanders plan to apply combat power for specific desired effects and targets. While Joint and Marine doctrines are silent on defeat mechanisms, US Army doctrine reflects their potential.⁴⁸ Joint planning doctrine, however, does frame a relationship between desired military objectives and effects and tasks.⁴⁹ Since defeat mechanisms offer concrete ways of describing how such effects are created, they could be incorporated within existing Joint doctrine to facilitate the development of distinctive courses of action and tie desired outcomes to effects, effects to tasks, and then tasks to component commanders.

48. Jerry Lynes, retired US Marine Corps colonel, correspondence with author, June 19, 2021.

49. Joint Chiefs of Staff (JCS), *Joint Planning*, Joint Publication (JP) 5-0 (Washington, DC: JCS, 2017), IV-27.

Table 1. Defeat mechanisms and projected effects

Defeat Mechanisms	Components of Combat Power	Desired Effects	Targets	Culminating Mechanism
Destruction	Firepower	Attrition of capacity	Physical resources, forces, and platforms	Systems disruption/ disintegration
Dislocation	Maneuver	Terrestrial and temporal positional advantage	Cognitive state of theater or operational commanders	
Degradation	Primarily information/ cyber/EMS Can be achieved kinetically or by cyber weapons	Seeks to slow or diminish cognitive tasks, decision making, and control capacity	Operational capacity of selective adversary networks/ systems Attacks links between elements of battle systems	
Disorientation	Cyber or other information systems	Delay decision making and C2 capacity	Commanders at all levels via C2 systems	

Table 1’s first column reflects the defeat mechanisms introduced at the beginning of the article. The subsequent columns summarize the principal component of combat power associated with each defeat mechanism, the desired effect, and specific target most often associated with it. The final column captures what is considered the culminating mechanism—either systems disruption or disintegration, a product of skillful operational art and orchestration of effects in time and space.

These building blocks provide the underlying rationale behind a good concept or operational plan. The need to apply multiple mechanisms, orchestrated across time and space, is often overlooked. It is possible but

unlikely a single mechanism, including destruction, would suffice. It is more likely some combination of mechanisms will be employed to deny the opponent's strategic aims and force a resolution on favorable terms. In major contests with a peer competitor, plans will require such combinational efforts and the reciprocal effects of the mechanisms.⁵⁰ The correct combination and orchestration of these mechanisms is what makes operational art so potent and demanding. At present, Joint doctrine lacks the terminology to define and apply these mechanisms as components of operational design, though US Army doctrine acknowledges them.

Systems disruption is only achieved by creative combinations of some mix of the four defeat mechanisms. This term is adapted from Marine doctrine, which incorporates the idea of thinking of the opponent as a system. The doctrine argued against a slow erosion of an enemy's defenses and sought to penetrate the enemy system and tear it apart. It goes on to note "firepower is central to maneuver warfare."⁵¹ Yet, that firepower is used to "contribute to the enemy's systemic disruption."⁵² The systems approach is useful, but "systemic" implies a larger breakdown or collapse akin to strategic paralysis and should be avoided. This approach is likely an overreach for a Joint operational concept, especially for conflict against a large-scale peer.

The Army has used disintegration, the process of losing cohesion or strength, as a Joint concept as far back as the early 2000s.⁵³ The concept is analogous to systems disruption and superior to paralysis or dilemma creation. Both terms remain viable for doctrine and concept development. Both the Army and Marine Corps have organic firepower and maneuver capabilities, and each service has developed capabilities for information/cyber operations that can execute systems confrontation/destruction at the operational and tactical levels. Thus, their ability to degrade and disorient is considerable. Clearly, the Joint force can bring these mechanisms to bear to achieve systems disruption or disintegration. Using these terms

50. Eado Hecht, "Defeat Mechanisms: The Rationale behind the Strategy," *Military Strategy* 4, no. 2 (Fall 2014), 24–30.

51. US Marine Corps (USMC), *Warfighting*, Marine Corps Doctrinal Publication (MCDP) 1 (Washington, DC: USMC, 1997), 4–4.

52. On Boyd, see Ian T. Brown, *A New Conception of War: John Boyd, the U.S. Marines, and Maneuver Warfare* (Quantico, VA: Marine Corps University Press, 2018).

53. Douglas J. DeLancey, *Adopting the Brigadier General (Retired) Huba Wass de Czege Model of Defeat Mechanisms Based on Historical Evidence and Current Need* (Fort Leavenworth, KS: School of Advanced Military Studies, 2001); and US Joint Forces Command, *Major Combat Operations Joint Operating Concept*, Version 2.0 (Washington, DC: Department of Defense, 2006), 11.

clearly and consistently will facilitate dialogue, the increased understanding of plans, and the testing of proposed operating concepts.

Regrettably, the table fails to present the reciprocal interaction of the defeat mechanisms as they relate to the moral, cognitive, and physical spheres of warfare.⁵⁴ The drafters of MDO understand this interaction in the call for cross-domain applications. The critics ignore an extensive body of military history regarding psychological/cognitive impacts and instead stress physical attrition. Obviously, there are physical and kinetic components to warfare, but they generate cognitive and psychological effects as well as materiel losses. As anyone who has been punched in the nose realizes, physical events also have moral/cognitive impacts.

The systems warfare concept is the most complete presentation for achieving systems disruption at the operational level. Its strong focus on systems and networks, however, should not be interpreted by modern-day apostles of attrition as underplaying the necessity for destruction to minimize the opponent's ability to operate against us. Additionally, this concept leverages information as an instrument of combat power by including the destruction of systems and networks via *invisible strike* from offensive computer/cyber operations. The Joint force must also incorporate firepower and maneuver, including the eventual fielding of autonomous and augmented systems that will produce greater discrimination and speed in strike operations. These abilities will be necessary for future contests, particularly in missile defense and cyber systems, and in generating destruction of materiel and critical systems.

At the operational level of war, systems disruption or disintegration should be seen as the result of a deliberate combination of defeat mechanisms. This approach appears more plausible and relevant to this era than the much-acclaimed effect of *strategic paralysis* or cognitive dilemmas. Combinations of fires, maneuver, and cyberattack can generate cascading effects against selected vulnerabilities that severely disrupt the opposing force's ability to respond effectively. Degrading C2 systems and disorienting the information received by decision making via deception or disinformation further complicates the adversary's adaptation and responses. The opposing commander's ability to understand, assess, and adapt in reaction to these thrusts will be slow and ineffective. To adapt Liddell Hart's conception, the desired effect is not that "the sword drops from a paralysed hand," but that the sword cannot be wielded in a coherent

54. Consistent with Boyd. See the chart in Hecht, "Defeat Mechanisms," 25.

and lethal manner.⁵⁵ At the operational level, systems disruption captures the desired and achievable effects we seek and the transitory character of most cyber-based weapons.⁵⁶

Fire, maneuver, and information remain enduring elements in today's character of war. But they are increasingly connected and interactive. Modern warfighting concepts should reflect this reality, as should doctrine and operational art. The future requires a force capable of wielding both sword and shield to blind, confound, and defeat future adversaries. We need to weave and defend networks, while unraveling our opponent's at the same time. The destructive sword—by air, ground, and sea—will certainly be applied with purpose and violence when needed. Fire and maneuver, however, will be joined by operational C2 systems that link them and facilitate cross-domain applications that disintegrate the effectiveness of our opponents—and generate a decided edge for the Joint force. For these reasons, refining the thinking and application of defeat mechanisms represents a crucial aspect of operational art now and for the emerging age.

In sum, this assessment suggests critics have some valid points. The Army and Air Force—and by implication, Joint all-domain operations—should not be focused on the creation of multiple dilemmas or strategic paralysis as their end states. Yet, critics seem to believe physical actions only have physical effects. Fire and maneuver, physical and cognitive/moral forces—all interact in battle. There is little evidence in history of success that depends solely on one method, especially among major states. Disintegration or systems disruption become feasible when sought as the culminating product of an operational approach that employs and sequences multiple defeat mechanisms, orchestrated over time and space and directed at critical vulnerabilities.

Conclusion

Speaking at a change of command ceremony in Hawaii, Secretary of Defense Lloyd Austin correctly observed, “The way we’ll fight the next major war is going to look very different from the way we fought the last ones . . . In this young century, we need to understand faster, decide faster, and act faster. Our new computing power isn’t an academic exercise.”⁵⁷ Every age, Clausewitz reminds us, has its own peculiar forms

55. Liddell Hart, *Strategy*, 212.

56. Max Smeets, “A Matter of Time: On the Transitory Nature of Cyberweapons,” *Journal of Strategic Studies* 41, no. 1–2 (2018): 6–32.

57. Lloyd Austin, “Secretary of Defense Remarks for the U.S. INDOPACOM Change of Command,” US Department of Defense, April 30, 2021, <https://www.defense.gov/News/Speeches/Speech/Article/2592093/secretary-of-defense-remarks-for-the-us-indopacom-change-of-command/>.

of warfare.⁵⁸ The emerging age will evolve its own peculiar mode, one that responds to political, social, and technological changes. Anticipating future adversaries will be difficult but necessary.

The disruptive impact of new technologies makes what Peter Paret called the cognitive challenge of war harder to address.⁵⁹ Gady properly assesses that maneuver will be challenged in an age of ubiquitous surveillance. Victory will not come about as simply as the by-product of creating dilemmas for our opponent. Instead, victory will be the result of careful orchestration of several types of explicitly defined defeat mechanisms tailored to the mission and circumstances. Winning in the twenty-first century will require the layered combination of kinetic and nonkinetic capabilities, more than Gady's suggestion for an updated version of France's "methodical battle."⁶⁰ To succeed, we must master battle network competitions that weave the physical and psychological elements together.⁶¹

History favors institutions that examine their operating methods and continuously refine their future visions of warfare.⁶² There is a touch of speculation in these visions, and we need to encourage debate on the merits of unproven methods and respect the prospects of agency by our opponents.⁶³ Critics of emerging US concepts provide an invaluable service in bringing attention to the need for critical validation. To reiterate, we should drop the simplistic attrition versus maneuver debate and seek a more holistic understanding of warfare, one that reflects the reciprocal interaction of multiple sources of combat power. US military doctrine should adopt combinations of interactive tools and effects, using both firepower and maneuver to gain victory, which is what MDO and the emerging Joint warfighting concept seek. As Austin observed, this approach is not an academic exercise.

For the last 30 years, since Operation Desert Storm, the military defeat of opponents could be assumed by virtue of our overwhelming dominance in military power. Our officer corps has taken this assumption for granted their entire professional lives. That fact appears to have diluted operational doctrine and clouded concept development. It is time for US officers

58. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1987), 593.

59. Peter Paret, *The Cognitive Challenge of War: Prussia 1806* (Princeton, NJ: Princeton University Press, 2009).

60. Gady, "Manoeuvre vs Attrition," 143.

61. John Stillion and Bryan Clark, *What It Takes to Win: Succeeding in 21st Century Battle Network Competitions* (Washington, DC: Center for Strategic and Budgetary Assessments, 2015).

62. Williamson Murray and Allan R. Millett, eds., *Military Innovation in the Interwar Period* (New York: Cambridge University Press, 1996), 604–14.

63. Lawrence Freedman, *The Future of War: A History* (New York: Public Affairs, 2017), 287.

to gain an understanding of how to beat adversaries decisively in the twenty-first century.

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The Air Littoral: Another Look

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ABSTRACT: Assessing threats to the air littoral, the airspace between ground forces and high-end fighters and bombers, requires a paradigm change in American military thinking about verticality. This article explores the consequences of domain convergence, specifically for the Army and Air Force's different concepts of control. It will assist US military and policy practitioners in conceptualizing the air littoral and in thinking more vertically about the air and land domains and the challenges of domain convergence.

For the first time in more than six decades, the US military no longer dominates the skies over battlefields. In the largest battle of the last decade—the fight to recapture Mosul from the Islamic State in 2016–17—the adversary was able to access and exploit the air domain closer to the ground, even as US and coalition warplanes flew unimpeded in the skies high above the battlefield. Small, cheap commercial drones loaded with light explosives—effectively, tiny bombers—killed or wounded dozens of Iraqi soldiers.¹ The enemy air threat became so serious it nearly brought the Iraqi offensive “to a screeching halt,” when, according to General Raymond Thomas, the US Special Operations Forces commander, the enemy’s drones were “right overhead and underneath our air superiority.”² Battlefields in Nagorno-Karabakh, Syria, Ukraine, Yemen, and elsewhere have seen combatants employ small, cheap unmanned aerial systems to combat an adversary’s advantages in the air.³

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1. Joby Warrick, “Use of Weaponized Drones by ISIS Spurs Terrorism Fears,” *Washington Post*, February 21, 2017, https://www.washingtonpost.com/world/national-security/use-of-weaponized-drones-by-isis-spurs-terrorism-fears/2017/02/21/9d83d51e-f382-11e6-8d72-263470bf0401_story.html.

2. David Larter, “SOCOM Commander: Armed ISIS Drones Were 2016’s ‘Most Daunting Problem,’” *Defense News*, May 16, 2017, <https://www.defensenews.com/digital-show-dailies/sofic/2017/05/16/socom-commander-armed-isis-drones-were-2016s-most-daunting-problem/>.

3. Don Rassler, *The Islamic State and Drones: Supply, Scale, and Future Threats* (West Point, NY: US Military Academy Combating Terrorism Center, 2018), <https://ctc.usma.edu/wp-content/uploads/2018/07/Islamic-State-and-Drones-Release-Version.pdf>; John Wendle, “The Fighting Drones of Ukraine,” *Air & Space Magazine*, February 2018, <https://www.airspacemag.com/flight-today/ukraines-drones-180967708/>; Ben Hubbard, Palko Karasz, and Stanley Reed, “Two Major Saudi Oil Installations Hit by Drone Strike, and U.S. Blames Iran,” *New York Times*, September 14, 2019, <https://www.nytimes.com/2019/09/14/world/middleeast/saudi-arabia-refineries-drone-attack.html>; and Tom Kington, “Libya Is Turning into a Battle Lab for Air Warfare,” *Defense News*, August 6, 2020, <https://www.defensenews.com/smr/nato-air-power/2020/08/06/libya-is-turning-into-a-battle-lab-for-air-warfare/>.

The airspace between ground forces and high-end fighters and bombers is quickly emerging as the more challenging and important contest for air control.⁴ Termed the air littoral, this airspace generally located below 10,000 feet is defined as the “area from the Coordinating Altitude to the Earth’s surface, which must be controlled to support land and maritime operations and can be supported and defended from the air and/or the surface.”⁵ Just as the emergence of the submarine, the self-propelled torpedo, and mines during the early-twentieth century added subsurface threats in the contest for sea control, small autonomous drones, low-flying missiles, and loitering munitions increasingly present a threat to air control from below the altitudes of conventional air superiority.⁶ Put simply, relatively cheap and easy-to-access technologies are exponentially increasing the number of actors with access to the air littoral and the military capabilities to dispute its control.⁷

Addressing this threat demands more than technological solutions; it requires a paradigm change in American military thinking about verticality. Adding a third dimension, that of vertical space, to conceive of both the air and land domains as volumes, we propose a three-dimensional concept of air control in time, planar distance, and altitude.

A volumetric concept of air control directs attention to critical differences between the “blue skies,” where high-end air assets typically operate, and the air littoral. Bringing the air war closer to the ground fight will not only resurrect past Army–Air Force disputes about service roles and missions, it will also place the Army and Air Force’s different concepts of control in conflict. Whereas the Army is more likely to strive for control of the air littoral through localized persistent occupation, the Air Force is likely to pursue control through responsive, if fleeting, presence. Adversaries are certain to exploit the gap between these differing

4. See Jules “Jay” Hurst, “Small Unmanned Aerial Systems and Tactical Air Control,” *Air & Space Power Journal* 33, no. 1 (2019): 19–33.

5. This definition draws from the Joint doctrinal definitions of the maritime littorals. See Joint Chiefs of Staff (JCS), *Joint Maritime Operations*, Joint Publication (JP) 3-32 (Washington, DC: JCS, 2018), I-5, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_32pa.pdf.

6. Milan Vego, *Maritime Strategy and Sea Control: Theory and Practice* (New York: Routledge, 2016), 136–53.

7. See Thomas L. Friedman, *The Lexus and the Olive Tree: Understanding Globalization* (New York: Picador, 2000), 47–51.

concepts of control unless the US military moves quickly to close this conceptual seam.

Air Superiority

Air control centers on preventing *prohibitive* or *effective* interference with air, land, and maritime operations, thus securing the Joint force's freedom to maneuver and attack. Current Joint doctrine acknowledges differing levels of air control. These range "from no control, to a parity (or neutral situation) wherein neither adversary can claim any level of control over the other, to local air superiority in a specific area, to air supremacy over the entire operational area."⁸ Air forces typically aim to achieve at least air superiority, whether a theater-wide and enduring condition or one localized in time and geography for the achievement of mission-specific objectives.

Joint Publication JP 3-01, *Countering Air and Missile Threats*, defines air superiority as "that degree of control of the air by one force that permits the conduct of its operations at a given time and place without *prohibitive* interference from air and missile threats."⁹ The highest level of control of the air is air supremacy, wherein the enemy is "incapable of *effective* interference within the operational area using air and missile threats."¹⁰ For decades, the United States has attained air superiority, if not supremacy, in almost all of its military conflicts. Today, however, this superiority is no longer a given.

The Eroding Foundations of US Air Superiority

With the renewed emphasis on great-power competition, academic and policy debates have centered on whether the United States is losing its military-technological advantages.¹¹ While addressing high-end capabilities is important, these debates run the risk of missing how low-cost technological innovations will significantly alter the character of war. The democratization of technology—the declining costs of

8. See JCS, *Joint Air Operations*, JP 3-30 (Washington, DC: JCS, 2019), I-1, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_30.pdf.

9. JCS, *Countering Air and Missile Threats*, JP 3-01 (Washington, DC: JCS, 2018), I-4, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_01_pa.pdf. Emphasis added.

10. JCS, JP 3-01. Emphasis added.

11. Robert O. Work and Greg Grant, "Beating the Americans at Their Own Game: An Offset Strategy with Chinese Characteristics," Center for New American Security, June 6, 2019, <https://www.cnas.org/publications/reports/beating-the-americans-at-their-own-game>; James Maynika and William H. McRaven, *Innovation and National Security: Keeping Our Edge*, Independent Task Force Report No. 77 (New York: Council on Foreign Relations, 2019); and James Johnson, "The End of Military-Techno Pax Americana? Washington's Strategic Responses to Chinese AI-Enabled Military Technology," *Pacific Review* 34, no. 3 (2019): 351–78, <https://doi.org/10.1080/09512748.2019.1676299>.

computing power and the Internet's global reach, along with the dual-use nature of many current and emerging technologies—have made airpower available to a much broader range of state and nonstate actors.¹² In the past, financial, organizational, technological, and scientific hurdles limited the development and employment of air forces to major powers.¹³ Today, however, commercial drones repurposed for military use offer an affordable entry point into the air domain. These simple-to-operate systems have placed advanced capabilities in the hands of any adversary for a few thousand dollars or less, while the Internet has given millions of people easy access to information about how to repurpose commercial drones for military applications.¹⁴

America's strategic competitors also seek to exploit these developments. Both Russia and China have made large investments in high-end, asymmetric capabilities for exploiting the air littoral in future fights—whether they are conducting proxy wars or large-scale conventional conflicts.¹⁵ In 2019, Russia announced plans to add more than 300 short-range drones annually to its already large fleet to outfit its ground forces with small, cheap drones armed with miniature bombs.¹⁶ In eastern Ukraine, since 2014, Russian-backed fighters have used multiple drones, flying at different altitudes over target areas, to spot for artillery.¹⁷ Similarly, the Chinese have begun to integrate smaller, tactical drones into their tactical firepower targeting and damage assessments.¹⁸ Most worrying for the United States is the potential curtailing of the military's

12. T. X. Hammes, "Technologies Converge and Power Diffuses: The Evolution of Small, Smart, and Cheap Weapons," *Cato Institute Policy Analysis*, no. 786 (2016); T. X. Hammes, "Cheap Technology Will Challenge US Tactical Dominance," *Joint Force Quarterly*, no. 81 (2016): 76–85; T. X. Hammes, *Deglobalization and International Security* (Amherst, NY: Cambria Press, 2019); Audrey Kurth Cronin, *Power to the People: How Open Technological Innovation is Arming Tomorrow's Terrorists* (New York: Oxford University Press, 2019); and Audrey Kurth Cronin, "Technology and Strategic Surprise: Adapting to an Era of Open Innovation," *Parameters* 50, no. 3 (2020): 71–84. See also Alexander Boroff, "What Is Great-Power Competition, Anyway?" Modern War Institute, April 17, 2020, <https://mwi.usma.edu/great-power-competition-anyway/>.

13. Sebastian Ritchie, *Industry and Air Power: The Expansion of British Aircraft Production, 1935–41* (London: Routledge, 1997); and Ferenc Á. Vajda and Peter Dancey, *German Aircraft Industry and Production, 1933–1945* (Warrendale, PA: SAE International, 1998).

14. Anne Stenerson, "The Internet: A Virtual Training Camp?," *Terrorism and Political Violence* 20, no. 2 (2008): 215–33; and Marcus Schulzke, "Drone Proliferation and the Challenge of Regulating Dual-Use Technologies," *International Studies Review* 21, no. 3 (2019): 497–517.

15. Tyrone L. Groh, *Proxy War: The Least Bad Option* (Stanford, CA: Stanford University Press, 2019); and Andreas Krieg and Jean-Marc Rickli, *Surrogate Warfare: The Transformation of War in the Twenty-First Century* (Washington, DC: Georgetown University Press, 2019).

16. Patrick Tucker, "Russian Troops Will Be Getting Tactical Bomb Drones," *Defense One*, July 2, 2019, <https://www.defenseone.com/technology/2019/07/russian-troops-will-be-getting-tactical-bomb-drones/158179/>.

17. Phillip A. Karber, "Lessons Learned from the Russo-Ukrainian War: Personal Observations," Historical Lessons Learned Workshop, sponsored by Johns Hopkins Applied Physical Laboratory & US Army Capabilities Center (July 8, 2015), 12–16.

18. Elsa Kania, *The PLA's Unmanned Aerial Systems: New Capabilities for a "New Era" of Chinese Military Power* (Montgomery, AL: China Aerospace Studies Institute, 2018), 3–16.

ability to provide effective support to US, allied, and partner ground forces from the skies above.

Contesting the Air Littoral

By combining old and new technologies in innovative ways, adversaries will vie for control of the air littoral. Clusters of technological breakthroughs in nanotechnology, additive manufacturing (3D printing), materials science, robotics, and quantum computing will allow the employment of numerous small, cheap, smart, and highly lethal weapons.¹⁹ Beyond the power of sheer numbers, swarms of autonomous systems could confer qualitative advantages against lower numbers of exquisite US weapon platforms.²⁰

Swarm attacks complicate defenses because these systems disperse across the battlespace, quickly massing at chosen moments to strike, before swiftly breaking off and dispersing until the next attack. As Paul Scharre explains, “rather than fighting against a formation,” the defender “faces an insuppressible collection of targets that are, seemingly, everywhere and nowhere at once.”²¹ For example, swarms of lethal miniature aerial munitions, also known as loitering munitions, might “mine” the airspace, lying in wait to collide with high-value US weapons systems, like fighter jets and bombers.²²

The mere threat of collision could be enough to deny that airspace to expensive fifth- or sixth-generation fighters, which would allow the enemy to access and exploit the airspace to conduct quick strikes against military bases, airfields, and logistical rear areas.²³ The low profiles and small signatures of these systems will also make them hard to detect and track,

19. Klaus Schwab, *The Fourth Industrial Revolution* (New York: Crown Business, 2016), 1; and Hammes, “Cheap Technology,” 77–80.

20. Christian Brose, “The New Revolution in Military Affairs: War’s Sci-Fi Future,” *Foreign Affairs* 98, no. 3 (May/June 2019): 122–34; and Paul Scharre, *Robotics on the Battlefield, Part II: The Coming Swarm* (Washington, DC: Center for New American Security, 2014), 16–18. See also John W. R. Lepingwell, “The Laws of Combat: Lanchester Reexamined,” *International Security* 12, no. 1 (1987): 89–134.

21. Scharre, *Robotics on the Battlefield*, 29. See also Paul Scharre and Michael D. Horowitz, *An Introduction to Autonomy in Weapon Systems* (Washington, DC: Center for New American Security, 2015); M. L. Cummings, *Artificial Intelligence and the Future of Warfare*, research paper (London: Chatham House, 2017); Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (New York: W. W. Norton & Company, 2018); and Benjamin M. Jensen, Christopher Whyte, and Scott Cuomo, “Algorithms at War: The Promise, Peril, and Limits of Artificial Intelligence,” *International Studies Review* 22, no. 3 (2020): 526–50.

22. Leslie F. Hauck III and John P. Geis II, “Air Mines: Countering the Drone Threat to Aircraft,” *Air and Space Power Journal* 31, no. 1 (2017): 28; and Ashley May, “Drones Can Do Serious Damage to Airplanes, Video Shows,” *USA Today*, October 17, 2018, <https://www.usatoday.com/story/travel/nation-now/2018/10/17/drones-crashing-into-airplanes-quadcopters-damage-video/1657112002/>.

23. J. Noel Williams, “Killing Sanctuary: The Coming Era of Small, Smart, Pervasive Lethality,” *War on the Rocks*, September 8, 2017, <https://warontherocks.com/2017/09/killing-sanctuary-the-coming-era-of-small-smart-pervasive-lethality/>.

complicating defensive efforts.²⁴ China is actively pursuing such capabilities, having recently tested a swarm of 48 so-called “kamikaze drones” loaded with high-explosive warheads and launched from a truck and helicopter.²⁵ Possession of these capabilities is not limited to near-peer competitors. The commercial development of low-cost, lightweight advanced sensors and the spread of AI surveillance technology and small drones will place these systems within the reach of most combatants.²⁶

These threats will converge at the boundary between the ground and the blue skies, where high-end air assets typically operate, and transform what Giulio Douhet referred to as the “coastline of the air” into a “contested zone,” where adversaries can dispute control of the air.²⁷ This area of convergence and contestation constitutes the air littoral.²⁸

A New Paradigm in Air Superiority

To address these threats successfully, military planners must reconceptualize air control as a “volume rather than a flat bounded plane.”²⁹ In the past, control of the air was won or lost in the blue skies: obtaining superiority over the theater of operations generally amounted to control over all the altitudes. But air control was never absolute. For example, even after the Allies gained air superiority over Europe in 1944–45, the German Luftwaffe still managed to cause tactical problems for ground troops. The overall effect, however, was negligible.³⁰ US doctrine has traditionally reflected these realities, conceiving the degree of air control as a simple function of time and lateral space. Such characterizations are increasingly outmoded; control of the air littoral is rapidly decoupling from that of the blue skies.³¹ Accordingly, the concept of air control must evolve into a

24. Alexis C. Madrigal, “Drone Swarms Are Going to Be Terrifying and Hard to Stop,” *Atlantic*, March 7, 2018, <https://www.theatlantic.com/technology/archive/2018/03/drone-swarms-are-going-to-be-terrifying/555005/>.

25. David Hambling, “China Releases Video of New Barrage Swarm Drone Launcher,” *Forbes*, October 14, 2020, <https://www.forbes.com/sites/davidhambling/2020/10/14/china-releases-video-of-new-barrage-swarm-drone-launcher/?sh=3121d6892ad7>.

26. Steven Feldstein, *The Global Expansion of AI Surveillance* (Washington, DC: Carnegie Endowment for International Peace, 2019), <https://carnegieendowment.org/2019/09/17/global-expansion-of-ai-surveillance-pub-79847>.

27. Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (Washington, DC: Office of Air Force History, 1983), 17. The term contested zone comes from Barry R. Posen, “Command of the Commons: The Military Foundation of U.S. Hegemony,” *International Security* 28, no. 1 (Summer 2003): 22–24.

28. This definition draws from the Joint doctrinal definitions of the maritime littorals. See JCS, *Joint Maritime Operations*, JP 3-32 (Washington, DC: JCS, 2018), I-5, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_32pa.pdf.

29. Alison J. Williams, “Reconceptualising Spaces of the Air: Performing the Multiple Spatialities of UK Military Airspaces,” *Transactions of the Institute of British Geographers* 36, no. 2 (2011): 256.

30. Thomas Hughes, *Over Lord: General Pete Quesada and the Triumph of Tactical Airpower in World War II* (New York: Free Press, 1995).

31. Hurst, “Small Unmanned Aerial Systems,” 28.

more complex understanding, as a volume, localized in time, equidistant plane, and altitude.³²

This reconceptualization shows the urgent need to modify the air tasking order. The 72-hour tasking and planning cycle of the Air Operations Center will be too slow and inflexible to define operations effectively in a highly dynamic environment. The increasingly contested air littoral will require closer cooperation and coordination at lower echelons of command across all services and forces, necessitating the delegation and dispersion of Air Operations Center and air tasking order responsibilities authorities.

Importantly, conceptualizing air control as a volume highlights critical differences between the blue skies and the air littoral in four key areas: vertical and temporal compression, airspace congestion, theater- and operational-level assessment and planning, and domain convergence. First, compared to the blue skies, the air littoral is a relatively narrow flight corridor, confined by terrain and other vertical obstacles posing unique operational challenges.³³ Flying at low altitudes places aircraft within range of ground-based attacks and renders them more vulnerable by restricting the field of vision and making it harder to detect incoming threats. Further, the compressed size of the littoral offers little reaction time, as the short vertical distances within the littoral critically reduce the window for deploying evasive countermeasures to battlefield threats, such as loitering swarms of mini-drones launched from backpacks.³⁴ Significantly, the high speeds and long-turn radii typical of fifth- and sixth-generation fighters and bombers reduce their maneuverability and agility in confined airspaces like the air littoral, rendering them less effective and thus exposing a critical gap in US air superiority.³⁵

Second, compared to the blue skies, the air littoral is a high-density threat environment. As US air assets fly at lower altitudes over enemy-held territories, the airspace will approximate an “aerial minefield.”³⁶ The small size and proximity of the airspace to the land domain will enable adversaries to mobilize and coordinate a defensive response, much as the maritime littoral confers a home-court advantage to coastal defenders. Operating in the air littoral will require US forces to maintain a constant, all-domain, and

32. JCS, *Joint Air Operations*, I-1.

33. JCS, *Joint Urban Operations*, JP 3-06 (Washington, DC: JCS, 2013), I-3, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_06.pdf.

34. H. G., “Ruffling Feathers: Why Drones Could Pose a Greater Risk to Aircraft Than Birds,” *Economist*, January 26, 2018, <https://www.economist.com/gulliver/2018/01/26/why-drones-could-pose-a-greater-risk-to-aircraft-than-birds>.

35. Federal Aviation Administration, *Pilot's Handbook of Aeronautical Knowledge*, FAA-H-8083-25B (Oklahoma City, OK: US Department of Transportation, 2016), 14–41.

36. Posen, “Command of the Commons,” 22–30.

multidimensional state of alert.³⁷ Moreover, coordination challenges will intensify. Enemy threats and the increasing frequency with which other services, allies and partners, and commercial actors operate in and through the air littoral will complicate the operational environment. As the categorical distinction between unmanned aircraft and cruise missile vanishes, the military will need more than increasingly complicated procedural control measures for coordinating airspace control and joint fires support. Large numbers of manned and unmanned aerial systems will require real-time integration and deconfliction with numerous ground-based assets capable of massing large volumes of long- and mid-range fires. To better coordinate both tactical airspace and cross-domain fires, the United States may well need to expand the Joint Air-Ground Integration Center, including the Air Support Operations Center, down to the battalion or even company level.³⁸

Third, the absence of a fixed enemy order of battle will complicate theater- and operational-level assessment and planning. During the Cold War, the United States could build a reasonably accurate enemy order of battle and assume adversaries would become less effective over time as their capabilities degraded and they were forced to focus more on defense and rebuilding their capabilities. However, as adversaries begin to use 3D printing to regenerate small aerial drone and other weapons capabilities quickly and field them as fast as the rate of attrition, these assumptions will no longer hold. In this operating environment, a linear air superiority doctrine—the axiomatic belief in the need for a dedicated air superiority campaign to seize and maintain control of the skies before executing other missions—will be ineffective. Instead, the US air superiority paradigm must adapt to a real-time and localized model of air control, capable of achieving a protective bubble around ground forces and manned air assets at critical battlefield moments.

Finally, the air littoral, in traversing the air and land domains, increases interactions and interdependencies between those domains. Traditionally, each military service has focused on achieving dominance in its primary warfare domain. The Army sought to occupy and control territory through land actions, the Navy to command the high seas through fleet engagements, and the Air Force to gain air supremacy through offensive air operations. The challenge from the start was that no domain was wholly distinct from the others, such that each service sought to expand its reach into the other domains, albeit part of a single-domain orientation. The Army might use the air domain to employ

37. For a similar argument about the maritime littoral, see Yedidia Ya'ari, "The Littoral Arena: A Word of Caution," *Naval War College Review* 48, no. 2 (1995): 3.

38. Headquarters, Department of the Army (HQDA), *The Joint Air Ground Integration Center*, Army Techniques Publication (ATP) 3-91.1/Air Force Tactics Techniques Procedures (AFTTP) 3-2.86 (Washington, DC: HQDA, April 2019).

rockets and artillery to wear down an adversary's ground defenses. Similarly, the Air Force might attack enemy air bases and ground-based radar systems to suppress sortie generation.³⁹ Even as the concept of "jointness" was born to better coordinate such actions, the boundaries between the domains and the domain-centric service structures remained firmly intact.⁴⁰ The historical exception was the seam between the land and sea domains, where the Army and Navy meet in the maritime littorals, leading the Marine Corps to specialize in this trans-domain environment.⁴¹

The Army and Air Force adopted a different solution, based on differentiating the roles and missions of each service. As codified in the Key West Agreement, the Army retained organic air assets such as helicopters, surface-to-air missiles, and antiaircraft artillery, while the Air Force gained control of all strategic air assets and fixed-wing tactical air support.⁴² This uneasy compromise has often been a source of interservice friction. Increased interactions and interdependencies between the Army and the Air Force lay bare the fiction of domain separation in the air littoral. Although the solution is not a new Air Littoral Force, akin to the Marines in the maritime littoral, the Navy and Marine Corps concept of composite warfare has significant applicability to the air littoral, particularly as an alternative model for addressing Army–Air Force jurisdictional problems.⁴³

Vertical Reciprocity or Rivalry?

Exploiting the "vertical reciprocity" between the air and ground will confer significant operational and tactical advantages. But it is also certain to resurrect past Army–Air Force disputes about service roles, missions, and doctrine.⁴⁴ By exploiting the air littoral, land forces will be able to attack from multiple directions and threaten adversaries with vertical envelopment.⁴⁵ This ability to maneuver in the air littoral will increase the defensive challenge for ground forces, who will confront a "spherical challenge," with threats in both the horizontal and vertical

39. Everett Carl Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (New York: Frank Cass, 2005), 30–35.

40. William Dries, "Some New, Some Old, All Necessary: The Multi-Domain Imperative," War on the Rocks, March 27, 2017, <https://warontherocks.com/2017/03/some-new-some-old-all-necessary-the-multi-domain-imperative/>.

41. The authors thank Lieutenant Colonel Michael Kreuzer for suggesting this term.

42. Kenneth W. Condit, *History of the Joint Chiefs of Staff: The Joint Chiefs of Staff and National Policy, Volume 2 – 1947–1949* (Washington, DC: Office of Joint History, Office of the Chairman of the Joint Chiefs of Staff, 1996), 95–96.

43. Department of the Navy, *Composite Warfare: Maritime Operations at the Tactical Level of War*, Navy Warfare Publication (NWP) 3–56 (Washington, DC: Department of the Navy, December 2015).

44. Peter Adey, *Aerial Life: Spaces, Mobilities, Affects* (London: Wiley-Blackwell, 2010), 2.

45. George M. Dougherty, "Ground Combat Overmatch through Control of the Atmospheric Littoral," *Joint Forces Quarterly* 94, no. 3 (2019): 54–73; and Jules Hurst, "Robotic Swarms in Offensive Maneuver," *Joint Forces Quarterly* 87, no. 4 (2017): 105–11.

dimensions.⁴⁶ Brigadier General Walter T. Rugen, director of the US Army's Future Vertical Lift Cross Function Team, asserts the Army's exploitation of the "lower tier of the air domain" could well be "decisive" in future wars, allowing Army aviation to "hide in the clutter, show up at the time and place of our choosing to really create chaos in the enemy's decision cycle."⁴⁷

With adversaries seeking these same advantages, however, US ground forces may well come under aerial attack. US Air Force Chief of Staff General Charles Q. Brown Jr. reminds, "For decades, American, allied, and partner warfighters have felt safe with top cover and strategic deterrence our air forces have provided . . . These assumptions no longer hold true today."⁴⁸ An increasingly accessible and contested air littoral stands between the ground and the blue skies, threatening to eliminate effective Air Force top cover.

With US aircraft operating in the blue skies, the Air Force will become less responsive to the needs of land forces.⁴⁹ Anticipating this prospect, the Army has begun to expand its air and missile defenses, growing the number of short-range air defense battalions, adding missile-hauling Stryker vehicles, and assigning Stinger teams to support maneuver units.⁵⁰ At the same time, the Army seeks to develop long-range, land-based missiles, such as precision-strike missiles, long-range hypersonic weapons, and "Strategic Long-Range Cannon[s]."⁵¹ Every indication is that the Army seeks to operate in and contest the air littoral as a secondary line of effort to preserve freedom of movement. As the Army incorporates more

46. Kobi Barak, "The Sky is No Longer the Limit: The Need for a Ground Forces UAV Fleet and Multi-Dimensional Warfare Capabilities," *Dado Center Journal*, 11-12 (2017): 38–60, 40.

47. Garrett Reim, "US Army to Exploit Crucial Weaknesses in Russian, Chinese Air Defences," *Flight Global*, September 24, 2020, <https://www.flightglobal.com/helicopters/us-army-to-exploit-crucial-weakness-in-russian-chinese-air-defences/140311.article>.

48. Charles Q. Brown Jr., *Accelerate Change or Lose* (Washington, DC: US Air Force, 2020), 3, https://www.af.mil/Portals/1/documents/2020SAF/ACOL_booklet_FINAL_13_Nov_1006_WEB.pdf.

49. See Kamal J. Kaaoush, "The Best Aircraft for Close Air Support in the Twenty-First Century," *Air and Space Power Journal* 30, no. 3 (2016): 39–53, https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-30_Issue-3/F-Kaaoush.pdf.

50. US Army, *Army Air and Missile Defense 2028* (Huntsville, AL: US Army Air and Missile Defense Integration Division, 2019), https://www.smdc.army.mil/Portals/38/Documents/Publications/Publications/SMDC_0120_AMD-BOOK_Finalv2.pdf; and Gary Sheftick, "Army Rebuilding Short-Range Air Defense," *Army News Service*, July 3, 2019, https://www.army.mil/article/224074/army-rebuilding_short_range_air_defense.

51. Sydney J. Freedberg Jr., "Army Building 1,000-Mile Supergun," *Breaking Defense*, October 11, 2018, <https://breakingdefense.com/2018/10/army-builds-1000-mile-supergun/>; and L. Neil Thurgood, "Hypersonics by 2023," *Army AL&T Magazine*, September 4, 2019, <https://asc.army.mil/web/news-alt-ond19-hypersonics-by-2023/>.

organic air assets, however, it will surely resurrect past disputes with the Air Force about service roles and missions.⁵²

More fundamentally, it will place the Army and Air Force's different concepts of control in conflict, specifically notions of persistent occupation versus responsive presence. Military theorists and practitioners have long recognized the land and air domains have different operational advantages and limitations. In the land domain, the primary objective is to conquer and control territory, with armies still the main instrument for achieving that end. Indeed, armies are unique from navies and air forces, in that they are the only service able to provide a permanent occupation force in their primary domain.⁵³ In the words of Clausewitz, armies can "stand fast, as it were, rooted to the ground." To be sure, armies still must move and maneuver—what Clausewitz termed "the essence of attack"—but terrain, topographical features, and logistical networks impose significant constraints on speed, mobility, and maneuverability.⁵⁴ Control of the land domain is thus a function of the persistent occupation of territory, conferring to the Army battlefield advantages while simultaneously denying adversaries freedom of movement across the same ground.

In contrast, the Air Force concept of control in the air domain centers on responsive presence, not persistent occupation. Unlike armies, air forces cannot live in their primary domain, as aircraft and crews must eventually land to rest, refuel, and refit; the occupation of airspace may occur for a time, but it is ephemeral.⁵⁵ What airpower offers instead are rapid and lethal presence and the ability of aircraft and other airborne systems to bypass terrain that would otherwise impede the movements of ground forces for the quick delivery of effects across great distances.⁵⁶ Control of the air domain is thus mainly a function of the ability of air forces to access and

52. Valerie Insinna, "Air Force General Says of Army's Long Range Precision Fires Goal: 'It's stupid,'" *Defense News*, April 2, 2021, <https://www.defensenews.com/air/2021/04/02/air-force-general-says-of-armys-long-range-precision-fires-goal-its-stupid/>; Robert Brown, "AUSA Fires Back at Air Force: Long-Range Missiles Aren't 'Stupid,'" *Breaking Defense*, April 6, 2021, <https://breakingdefense.com/2021/04/ausa-fires-back-at-air-force-long-range-missiles-arent-stupid/>.

53. Julian S. Corbett, *Some Principles of Maritime Strategy*, reprint (Annapolis, MD: US Naval Institute Press, 1988), 16.

54. Clausewitz, *On War*, 285.

55. Phillip S. Meilinger, "Ten Propositions about Airpower" (student paper, Washington, DC: Air University, 1995), 2.

56. Douhet, *Command of the Air*, 7–9.

exploit the domain at a required time and place while denying those same advantages to the adversary.⁵⁷

These differing Army and Air Force concepts of control will inevitably come to the fore as the air littoral grows more congested and contested. Put simply, in responding to the threat, the Army is more likely to strive for control of the air littoral through localized persistent occupation, while the Air Force is more likely to pursue control through rapid presence to provide time-bound denial and fires. Thus, the Army is likely to expand its organic air defense capabilities to create a persistent air umbrella over its ground forces. By deploying drone swarms as an occupying force in the air littoral, the Army could gain localized air superiority and persistent aerial cover. General Kobi Barak, the former chief of Israeli Defense Force's ground forces, envisions "a type of mission-specific Iron Dome that could provide tactical protection for assembly areas, for forces preparing for an assault and for forward command centers and others."⁵⁸ A continuous aerial umbrella could also create kinetic and non-kinetic effects from the air, including persistent close-air support for ground forces.

Indeed, the Army is urgently developing a future system, Air-Launched Effects, which will launch swarms of mini-drones to blanket the battlefield with lethal and nonlethal fire.⁵⁹ Short of the Air Force ceding the air superiority mission in the air littoral to the Army, the growing mission overlap will cause a clash of air-centric and land-centric concepts of control. Closing this seam before adversaries can exploit it is imperative. The future contested environment demands the development of novel operational concepts.

Conclusion

This new and unprecedented littoral challenge to US air superiority calls for more than technological solutions. It requires a profound paradigm change in US military thinking about the air domain. To this end, we propose the US military update concepts of air control to account for a third dimension, that of vertical space, thus localizing air control in time, lateral space, and altitude. This reconceptualization directs attention to critical differences between the blue skies and the air littoral, including

57. JCS, *Joint Air Operations*, I-I.

58. Barak, "Sky No Longer the Limit," 41.

59. Jared Keller, "The Army Is Going All In on a Drone Swarm to Back Up Its Next-Generation Helicopters," *Task and Purpose*, August 25, 2020, <https://taskandpurpose.com/news/army-drone-swarm-air-launched-effects-contracts/>.

temporal and spatial compression, airspace congestion, theater- and operational-level assessment and planning, and domain convergence. With the air littoral traversing the air and land domains, the Army and the Air Force urgently need to close the gap between air-centric and land-centric concepts of control.

The first requirement should be the development of a roles and missions commission to conduct a comprehensive review of existing service roles and missions. The 1948 Key West Agreement (defining roles and missions) and the 1986 Goldwater-Nichols Department of Defense Reorganization Act (delineating service and regional combatant command responsibilities) helped contain interservice rivalry and built jointness. These roles and mission compromises, however, are increasingly misaligned with the emerging trans-domain operational environment. The commission should focus on capability gaps and battlespace seams associated with zones of domain convergence, such as the air littoral, and better delineation of responsibilities for long-range fires, air defense, and cross-domain command, coordination, and control.

The second requirement should be the development of Joint doctrine for the air littoral. Military leadership should clearly identify different types of air littoral operations and schemes of vertical maneuver and explore new organizational structures based on functional commands, such as composite warfare. Presently, the services are focused on technological solutions, specifically countering unmanned aerial systems. Gaining a competitive advantage in the air littoral, however, will also require reconciling the Army and Air Force's different concepts of control—whether the air littoral requires persistent occupation or a responsive presence capable of achieving localized air superiority at critical battlefield moments.

Above all, both services must think more vertically. For nearly four decades, both services have primarily concentrated on the horizontal plane or the lateral distance from the enemy. Recent discussions of the anti-access and area-denial challenge in the Indo-Pacific region follow a similar pattern.⁶⁰ The contemporary operating environment, however, requires an expanded multidimensional framework. The anti-access and area-denial threat aims to push American power projection forces outside their combat effective ranges, both laterally and vertically. The

60. Stephen Biddle and Ivan Oelrich, "Future Warfare in the Western Pacific: Chinese Antiaccess/Area Denial, U.S. AirSea Battle, and Command of the Commons in East Asia," *International Security* 41, no. 1 (2016): 7–48.

democratization of the air littoral represents the core vertical challenge, as it significantly expands the battlespace from the US and allied perspective.

For ground forces, the close battle now includes not only the area immediately in front of ground troops, but also the area immediately above them. Similarly, the deep battle is the area well ahead and well above the most forward-deployed ground forces. For air operations, the fundamental challenge is no longer rapidly closing the distance to conduct effective operations; it is vertical mobility and cross-domain fires. Visualizing either the ground or air fights laterally is no longer adequate. The military services must develop a new Joint all-domain framework grounded in both horizontal and vertical spaces.

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The Grand Strategic Thought of Colin S. Gray

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ABSTRACT: Colin S. Gray distinguished himself from other scholars in the field of strategic studies with his belief that grand strategy is indispensable, complex, and inherently agential. This article identifies key themes, continuities, conceptual relationships, and potential discontinuities from his decades of grand strategic thought. Gray's statement that "all strategy is grand strategy" remains highly relevant today, emphasizing the importance of agential context in military environments—a point often neglected in strategic practice.

With a career spanning from 1970 to his death in 2020, Colin S. Gray was a titan of modern strategic studies. His contributions to the field touched on most of the myriad dimensions of strategy and may be all but unsurpassable. He was also greatly respected as a scholar of grand strategy, though it was never the main subject of his books or articles. Much of his work frequently referenced grand strategy as a higher form of strategy, at times equivalent to statecraft.

This article compiles, organizes, and reconstructs Gray's overall grand strategic thought over the decades, identifying key themes, continuities, conceptual relationships, and potential discontinuities. It argues Gray's conception of grand strategy emphasizes the *agential context* of military strategy. War is more than a simple military contest: it inherently involves nonmilitary forms of power. Grand strategy as agential context is an essential reminder to military strategists the polity they represent can employ other methods—economic, diplomatic, and so forth—to wage war, and it is vital the various agencies wielding these dissimilar forms of power do not work at cross-purposes.

Gray's conception of grand strategy contradicts the mainstream interpretation particularly favored in the United States, in which grand strategy is identified as the master of policy. This view gained credence following Paul Kennedy's well-known remark that grand strategy "was about the evolution and integration of policies that should operate for decades, or even centuries."¹ Some scholars are wary of the expansiveness of this definition. Colin Dueck has carefully argued "grand strategy is not

1. Paul Kennedy, "Grand Strategy in War and Peace: Toward a Broader Definition," in *Grand Strategies in War and Peace*, ed. Paul Kennedy (New Haven, CT: Yale University Press, 1991), 4.

synonymous with foreign policy in general,” even though he also suggests “[i]t includes peacetime as well as wartime policymaking.”² Most scholars, however, have embraced it enthusiastically. Christopher Layne asserts, “[G]rand strategy is about determining a state’s vital interest—those important enough to fight over—and its role in the world.”³ More recently, Charles Martel has argued, “In effect, strategy tells us *what* policies to pursue, whereas foreign policy is about the *how* to do so. Missing is the broad question of *why* the state pursues such policies using particular strategies, which is the precise function of grand strategy.”⁴ In placing grand strategy above policy, authors have essentially turned it into ideology; particular grand strategies are specific ways of interacting with the rest of the world for the sake of interacting with the world in that specific way.⁵ As a crucial side effect, “[s]cholars—and, too often, policymakers—sometimes skip this step [of performing grand strategy] on the implicit assumption that if the plan is good enough, implementation will work itself out.”⁶

Basic Views on Grand Strategy

To appreciate Gray’s recurring invocations of grand strategy, one must begin with his basic views on the concept. His fundamental understanding of grand strategy has four dimensions: (1) the awareness that, in some ways, grand strategy is a compromise; (2) his preferred definition and what it encompasses; (3) the relationship between grand strategy and the general theory of strategy; and (4) the indispensability of grand strategy. These underlying perspectives set up all further elaborations.

Although Gray referenced grand strategy in earlier writings, after the end of the Cold War he came to believe it could serve as a compromise between two disparate scholarly camps. One camp, strategic studies, emphasized the continued relevance of military strategy, despite the relative peace of the 1990s. The other camp, security studies, argued military power was no longer relevant and the security agenda needed to be broadened to encompass myriad forms of security.⁷ Gray recognized grand strategy as a compromise

2. Colin Dueck, *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy* (Princeton, NJ: Princeton University Press, 2008), 10, 11.

3. Christopher Layne, *The Peace of Illusions: American Grand Strategy from 1940 to the Present*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell University Press, 2006), 13.

4. William C. Martel, *Grand Strategy in Theory and Practice: The Need for an Effective American Foreign Policy* (New York: Cambridge University Press, 2015), 4.

5. Adam Elkus, “Must American Strategy Be Grand?,” *Infinity Journal* 3, no. 1 (Winter 2012): 24–28.

6. Paul D. Miller, *American Power & Liberal Order: A Conservative Internationalist Grand Strategy* (Washington, DC: Georgetown University Press, 2016), 221.

7. Joshua Rovner, “Warring Tribes Studying War and Peace,” *War on the Rocks*, April 12, 2016, <https://warontherocks.com/2016/04/warring-tribes-studying-war-and-peace/>.

position for accepting the broadening—but not demilitarization—of security.⁸ This compromise understanding immediately separated Gray from scholars following the mainstream, academic, international relations-inspired approach to the field, which broadly defines grand strategy as the framework into which foreign policy fits.⁹

This middle way inspired Gray's favored definition of grand strategy: "The direction and use made of any or all among the total assets of a security community in support of its policy goals as decided by politics. The theory and practice of grand strategy is the theory and practice of statecraft itself."¹⁰ This description is broadly identical to his definition of strategy: "By strategy *I mean the use that is made of force and the threat of force for the ends of policy.*"¹¹ Though similar, there are key differences.

The first obvious difference is breadth. Grand strategy simply encompasses many more instruments of power than does strategy. Indeed, Gray suggests grand strategy is statecraft itself, which seems potentially at odds with his view of grand strategy as a middle way which provides a role for the military. Statecraft does not inherently require a military dimension in conception or specific practice and so seems closer to security studies than a middle way, which also encompasses military power. On the other hand, Gray did not specifically clarify whether or not any particular practice of grand strategy required the use of military power. While his writings never considered grand strategy without a military dimension, this absence could be due to the fact that strategy, rather than grand strategy, was almost always his primary topic. Considering statecraft without a military dimension in specific contexts was beyond the scope of Gray's writing but not beyond the scope of the concept.

The second difference concerns political direction. According to Gray, strategy was instrumental without any control over the overall purpose, while grand strategy also encompassed some degree of political *direction* over that purpose. The inclusion of direction establishes grand strategy as a level of analysis distinct from and superior to strategy. It also brings grand strategy closer to policy, which provides guidance for and direction of strategy.

The third difference between Gray's conceptions of strategy and grand strategy is the latter controls all instruments of national power, rather

8. Colin S. Gray, "Approaching the Study of Strategy," in *International Security and War: Politics and Grand Strategy in the 21st Century*, ed. Ralph Rotte and Christoph Schwarz (New York: Nova Science Publishers, 2011), 17.

9. See Hal Brands, *What Good is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush* (Ithaca, NY: Cornell University Press, 2014), 86.

10. Colin S. Gray, *The Strategy Bridge: Theory for Practice* (New York: Oxford University Press, 2010), 18.

11. Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 17.

than military force alone. He rarely enumerated the instruments of grand strategy, however, and was largely content with describing them as the total power available a polity. He provided a taxonomy of grand strategy only once, identifying the instruments of statecraft as diplomacy; trade and investment; economic and financial assistance; propaganda, information, and education; cultural influence; espionage, covert action, and political warfare; military assistance and arms sales; military power (threat or use of force); arms control; peacekeeping; and humanitarian assistance.¹² Notably, the list included positive inducements (such as various forms of assistance) as well as coercion, marking another difference between the coercive logic of strategy and grand strategy.

Nonetheless, Gray was adamant strategy and grand strategy should only be understood through the general theory of strategy, although again this statement may contradict other claims concerning grand strategy's equivalence with statecraft. "The general theory of strategy covers both grand and military strategy."¹³ The sibling relationship between strategy and grand strategy has three conceptual consequences. First, "[g]rand-strategic and military-strategic analyses interpenetrate . . . When, acting grand-strategically, policymakers select the mix of instruments they will employ, that selection must be influenced critically by the plausibility of the competing promises of net strategic effectiveness."¹⁴ The interpenetration of strategy and grand strategy is a recurring theme.

The second conceptual consequence is that both grand strategy and strategy are performative. Neither is simply about choices but also about how effectively those choices are implemented. "All military strategists, and most grand strategists, cannot perform their duties unless their schemes, great and small, are done, 'in the field,' by soldiers willing to be led in that physically and psychologically horrendous circumstance of the most acute personal peril."¹⁵ Notwithstanding the reference to specific military implementation, Gray believed performance was equally crucial for nonmilitary power.

The third conceptual consequence is, like strategy, grand strategy suffers from what Gray called the currency conversion problem. "The trouble is that there is a radical difference in nature, in kind, between violence and political consequence . . . this dilemma of currency conversion

12. Colin S. Gray, *Explorations in Strategy* (Westport, CT: Greenwood Press, 1996), 87.

13. Gray, *Strategy Bridge*, 19.

14. Gray, *Explorations in Strategy*, 86–87.

15. Gray, *Strategy Bridge*, 214.

is central to the difficulty of strategy.”¹⁶ That is, how does a strategist ensure any action leads toward the desired political consequence? Although it is fair to assert the currency conversion problem probably afflicts military power more than nonmilitary power, it is still relevant for grand strategy. Gray’s exploration of the relationship between strategic theory and grand strategy cements the differences between his understanding and that of the American mainstream, which typically ignores issues of performance and currency conversion.

The final foundational perspective Gray held about grand strategy was its indispensability, reflected in the natures of war, the enemy, and security. Gray asserted, “The necessity for some approximation to a grand strategy is revealed in literally every conflict conducted by all societies. In times of troubled peace as well as actual war, communities do not compete with their armed forces alone.”¹⁷ Gray recognized the enemy has input into the course and outcome of war, but he also understood this vote is grand strategic: “it does not follow that the terms of engagement can be dictated by American strategy. A smart enemy may succeed in finding ways to prosecute conflict asymmetrically, grand strategically and not only militarily.”¹⁸ To create and exploit asymmetric advantage in war, the enemy can also employ nonmilitary instruments.

Gray recognized the security problems any polity might face are inevitably multidimensional—and even if not, good (grand) strategy would try to overdetermine the outcome anyway, particularly given the difficulties of currency conversion. Thus, Gray suggested, “US policy and grand strategy would be all but certain to have to resort to several tools (for example, diplomacy, economic sanctions or assistance, and possibly some regular military deployment and maneuvering for political effect).”¹⁹

In contrast to Gray’s belief in the indispensability of grand strategy, some scholars have proposed alternatives to, or declared the end of, grand strategy.²⁰ This divergence stems primarily from basic definitional differences. Gray considers the employment of nonmilitary instruments generically mandatory, a sentiment not shared by all scholars or practitioners toward foreign policy frameworks.

16. Gray, *Strategy Bridge*, 136.

17. Gray, “Approaching Study of Strategy,” 17.

18. Colin S. Gray, *Maintaining Effective Deterrence* (Carlisle, PA: Strategic Studies Institute, 2003), 37.

19. Gray, *Explorations in Strategy*, 211.

20. See for example, Daniel W. Drezner, Ronald R. Krebs, and Randall Schweller, “The End of Grand Strategy: America Must Think Small,” *Foreign Affairs* 99, no. 3 (May/June 2020): 107–17; and Peter Layton, “Grand Strategy? What Does That Do for Me?,” *Strategist* (blog), Australian Strategic Policy Institute, July 23, 2012, <https://www.aspistrategist.org.au/grand-strategy-what-does-that-do-for-me/>.

In summary, Gray believed grand strategy: (1) obeys the dicta of the general theory of strategy even though it is closer to policy than strategy itself; (2) potentially employs inducements alongside coercion; and (3) is indispensable. Although there are a few points of potential inconsistency or vagueness, Gray's appreciation of grand strategy is intertwined with his understanding of strategy and war. His writings also reveal other interesting and important conceptual relationships between grand strategy and (1) geopolitics and strategic culture; (2) power; (3) war; and (4) policy. These elements all culminate in a final relationship between grand strategy and context.

Grand Strategy, Geopolitics, and Culture

Coincident with the first decade of Gray's career, three big ideas emerged—or reemerged—within strategic studies: geopolitics, strategic culture, and grand strategy.²¹ Gray's writings demonstrate close links between these three concepts, such that it is perhaps impossible to address one fully without mentioning the other two. This connection is perhaps most vividly demonstrated in Gray's 1991 article on geography and grand strategy, the first substantive section of which focuses on strategic culture.²²

Gray believed geopolitics and grand strategy are essentially synonymous, a view he enunciated early in his career. In the introduction to *The Geopolitics of Superpower*, he wryly noted, "Had the long-hallowed British verbal formula of 'grand strategy' not been expropriated to such a persuasive effect by Edward Luttwak, this book might have been called *The Grand Strategy of the United States*."²³ The essential equivalence between grand strategy and geopolitics is unsurprising given, first, Gray also equated grand strategy with statecraft and, second, geography is inescapable: "[a]ll politics is geopolitics," "[a]ll strategy is geostrategy."²⁴ While it does beg the question why he would use two different terms if they were essentially synonymous, no definitive answer appears in his published writings.

Geography was also crucial to Gray's appreciation of strategic culture: "The first-order subjects of interest to pursuit of the cultural perspective on strategy have to be geography and history," and further, "[t]he physical

21. Lukas Milevski, *The Evolution of Modern Grand Strategic Thought* (Oxford, UK: Oxford University Press), 109–10.

22. Colin S. Gray, "Geography and Grand Strategy," *Comparative Strategy* 10, no. 4 (1991): 311–29.

23. Colin S. Gray, *The Geopolitics of Superpower* (Lexington: University Press of Kentucky, 1988), 1.

24. Colin S. Gray, "Inescapable Geography," *Journal of Strategic Studies* 22, no. 2–3 (1999): 163.

geographies of particular security communities, including their spatial relations in all senses with other communities, always have had a large influence on strategic choice.”²⁵ Geography shapes preferences; preferences turn into choice; choices turn into history; and history in turn shapes new grand strategic preferences. Gray may have been inspired by well-known British warfare concepts, including a grand strategic-level cultural notion encompassing not just how to use—and not use—land power and sea power, but also financial power. Like Gray, authors such as Dueck and Alastair Iain Johnston identify close relationships between grand strategy and strategic culture.²⁶

Yet, this connection with strategic culture also betrays a limitation of Gray’s grand strategic thought. Gray understood the importance of tactical performance for strategic success and extended this principle to grand strategy as well. However, he rarely discussed grand strategic performance except when military activity contributes to it. Instead, whether encompassing the cultural dimension of grand strategy explicitly or not, he focused on the choice of instruments rather than their performance. This decision indicates the sheer difficulty of studying grand strategy as a middle way. It requires familiarity, if not mastery, of items in Gray’s taxonomy of grand strategic instruments—a list which includes wildly varied forms of power—and how they work. Total mastery requires not only a staggering array of various expertise, but also the grand strategic imagination to combine them effectively in thought or practice. The difficulty of this task—challenging for both Gray and the entire field—is the foremost factor inhibiting the development of the study of grand strategy.

Grand Strategy and Forms of Power

Although Gray rarely delved into the performativity of nonmilitary power, he remained aware vital differences existed among the plethora of instruments and orchestrating them simultaneously within a single conflict was a grave challenge.

To solve the question of how to coordinate various forms of power within a single grand strategic effort, Gray relied on two main starting points. The first was the role of geography. “The four geophysical environments for conflict—land, sea, air, and space—are distinctive as to technologies, tactics (and hence doctrines, i.e., how to fight), and operational art.”²⁷ By placing

25. Colin S. Gray, *Perspectives on Strategy* (Oxford, UK: Oxford University Press, 2013), 89, 90.

26. Dueck, *Reluctant Crusaders*; and Alastair Iain Johnston, *Cultural Realism: Strategic Culture and Grand Strategy in Chinese History* (Princeton, NJ: Princeton University Press, 1995).

27. Gray, “Geography and Grand Strategy,” 316.

physical demands and requirements on humans and their technologies, geography defines how power actually performs in conflict. It is possible to speak broadly of military power only to a certain point. Eventually, geographic specificities dominate and distinguish land power from sea power, air power, space power, cyber power, and nuclear power. However, there is still merit in studying military power writ large, as it remains collectively unique compared to nonmilitary power.²⁸

Nonetheless, military power does lead to an orchestration problem. It is not merely a question of how a strategist coordinates various forms of military power—that is, joint warfare—but of interchangeability: how to employ military and nonmilitary forms of power. “Instead of the threat or use of force, the grand strategist may be tempted to wage political, psychological, subversive, diplomatic, economic, or cultural war. Of course, the military instrument is wielded to psychological and political effect, and subversive war naturally must have psychological and political purposes. *Strategic effect is generic.*”²⁹ Although all forms of power are unique—military forms more so than nonmilitary—their consequences, in principle, should all be reducible to a unified framework.

While Gray did not truly develop such a unified framework, he did propose some broad insights. With military issues, he suggested its uniqueness demanded primacy among instrumental grand strategic considerations. “Although all of the instruments of policy are important, when the issue of the day is one of military security, questions of military strategy will assume preeminent importance. The other tools of statecraft—diplomacy, propaganda, economic pressure, subversion, and so forth—must be regarded as supporting elements in a context that privileges military behavior.”³⁰ Prescribing nonmilitary instruments a supporting role does not deny their importance in the conduct of war, however, as they may ease or unnecessarily exacerbate military strategic tasks.

Gray recognized the primacy of consideration military power enjoys is limited to outright military conflict. Politics may conduct conflicts with and through any of the instruments at their command, and in particular cases military power may be temporarily excluded. “Just as there are wars wherein, for example, the maritime or the air element is dominant, so

28. Colin S. Gray, *Fighting Talk: Forty Maxims on War, Peace, and Strategy* (Westport, CT: Praeger Security International, 2007), 66.

29. Gray, *Modern Strategy*, 162. Emphasis added.

30. Gray, *Fighting Talk*, 72.

there are conflicts wherein economic, political, or subversive instruments of grand strategy are accorded the status of leading edge.”³¹

While Gray’s engagement with most nonmilitary forms of power ultimately ended with these observations, he discussed soft power in more detail. Joseph S. Nye Jr. originated the concept, defining it as “the ability to get what you want through attraction rather than coercion or payments. It arises from the attractiveness of a country’s culture, political ideals, and policies.”³² While the original definition has been corrupted over time and the term is now essentially synonymous with nonmilitary power, Gray engaged with Nye’s original conception of soft power. Because soft power is uncontrollable, with a nature that is inherently attractive, rather than coercive or inducing, Gray questioned whether it could be considered a grand strategic instrument.³³ Despite its substantial theoretical and occasional real-world value, it is a form of power which exists beyond the scope of grand strategy, and perhaps policy as well. At times, soft power merely happens coincidentally, as an added benefit to the greater actions of a politician or grand strategist. In the context of the fungibility of power, it may sometimes achieve sufficient effect to replace partially or fully the need for some other instrument of power. But no sensible strategist would ever rely on its chance of occurring.

Gray’s final insight concerning the interchangeability of power is that the limits of fungibility are manipulatable, and can sometimes be pushed further than expected:

*The substitutes need not even be close in character. Competent strategy will find alternative means and methods, different people to command, and uses for machines that their inventors and initial military operators had not intended, in order to adapt in near real time to the challenge of necessity. This is not to claim that all military, or grand strategic, assets are fully fungible; of course, they are not. But the strategist needs to be a creative person, selected in part for his ability to conceive of different routes to an objective.*³⁴

Ultimately, however, Gray left these questions for his successors to develop: how to comprehend generic strategic effect in a way that encompasses all forms of power (except soft power), within the full performative dimension.

31. Gray, *Modern Strategy*, 163.

32. Joseph S. Nye Jr., *Soft Power: The Means to Success in World Politics* (New York: Public Affairs, 2004), x.

33. Colin S. Gray, *Hard Power and Soft Power: The Utility of Military Force as an Instrument of Policy in the 21st Century* (Carlisle, PA: Strategic Studies Institute, 2011), 30.

34. Gray, *Strategy Bridge*, 155.

Grand Strategy, War, and Complexity

Just as warfare occurs in war, with war the superior concept, so too does (military) strategy occur as part of grand strategy. As Gray points out, “War is a total relationship—political, legal, social, and military. Warfare is the conduct of war, generally by military means. A narrow focus upon warfare proper, which is natural enough for armed forces, can obscure the need to function grand strategically, in doing which military behavior is only one dimension of the effort, albeit a vital one.”³⁵ The grand strategic perspective therefore takes a certain priority, notwithstanding that in war the military contest is inevitably the most important. Gray suggests this priority is not necessarily one of significance but of analytical progression. Analysis of a security challenge begins with grand strategy and incorporates (military) strategy only once it is politically determined force will be employed.³⁶

The military instrument cannot simply be unleashed on its own, without first understanding the adversarial challenge and its context. To do so would, at best, be an inefficient use of a polity’s resources. At worst, it could lead to defeat or catastrophe.³⁷ Gray’s discussions of grand strategic failures frequently looked to twentieth-century Germany and the twenty-first-century United States as examples.

The complexity of grand strategy and war is also reflected in the number of agents responsible for conceiving and coordinating any grand strategy. This challenge overshadows the task of coordinating combined arms and joint warfare because the armed services are closer in perspective to one another than to nonmilitary perspectives. Moreover, as Gray observes, the coordination is constant, as the continuous adversarial interaction of war always creates new challenges:

*For a state to function well enough grand strategically, most of its interconnected parts need to do at least a minimum of what they have to do at a tolerable level of competence as contributors to a single war effort—when the grand strategy key is turned. Moreover, someone, actually several people, processes, and enforcers, are required if a war effort is to be maintained in the face of surprises.*³⁸

35. Colin S. Gray, *Irregular Enemies and the Essence of Strategy: Can the American Way of War Adapt?* (Carlisle, PA: Strategic Studies Institute, 2006), 11.

36. Colin S. Gray, *Categorical Confusion? The Strategic Implications of Recognizing Challenges Either as Irregular or Traditional* (Carlisle, PA: Strategic Studies Institute, 2012), 34.

37. Gray, *Fighting Talk*, 84.

38. Gray, *Strategy Bridge*, 129.

Finally, Gray understood grand strategy often posed a danger to itself due to its sheer complexity, which could obscure crucial elements of military power and attendant strategy.³⁹ Gray repeatedly emphasized the importance of tracking the essential elements of war, even while maintaining awareness of, and being prepared to act within, the full complexity of grand strategy and war:

*If one embraces grand strategy as well as its subordinate military strategy, the sheer complexity and diversity of agents, agencies, processes, and happenings, all influenced by enemies, friends, and neutrals, is apt to amount more to chaos than to order in any sense. Strategic theory acknowledges complexity, diversity, contingency, the unwelcome influence of the enemy's efforts, and so forth. But also it must insist upon the primary existential significance of an actual story arc to the course of strategic history.*⁴⁰

Grand Strategy and Policy

The variety of actors involved in grand strategic management—required both to master the full complexity of war and to direct the multiple instruments of grand strategy—led Gray to question how to differentiate policy and grand strategy. He realized his interpretation of grand strategy pushed it into a rarified conceptual atmosphere, making it at times closer to policy than to its foundational logic in strategy itself. Hence, he admitted in *Strategy and Politics*, “Statesmen and strategists, who might be regarded as behaving in a common category of responsibility, aspire to nudge their polity’s political and strategic situation along a path of adequate security. This text is closer in the spirit and focus to being a study of grand strategy than of strategy approached narrowly in a strictly military mode.”⁴¹

Gray struggled between diverging reality and theory. He admitted “[g]rand strategy undoubtedly is so close to policy that the two can seem indistinguishable. There is merit in Clausewitz’s rather more limited, highly apposite claim that ‘at the highest level the art of war turns into policy.’”⁴² Elsewhere, Gray tested himself more thoroughly against this line of thought that the highest levels of strategy become policy:

[E]ven though there is an obvious difference between a policy goal and a strategy to secure it, the intimacy of the connection between them is such that one could argue that insistence upon the

39. Gray, *Perspectives on Strategy*, 157–58.

40. Gray, *Strategy Bridge*, 176.

41. Colin S. Gray, *Strategy and Politics* (New York: Routledge, 2016), 8.

42. Gray, *Fighting Talk*, 84.

*distinction does more harm to understanding than it does good. On balance, and it is only on balance, this discussion maintains that the distinction between a policy objective and plans and actions for its intended achievement is valid, necessary, and sustainable under critical fire. However, we admit that policy and its execution should be so closely interwoven and continuously in dialogue that some apparent fusion of, and confusion between, the two is always likely.*⁴³

Because Gray's conclusion acknowledges both the inherent messiness of warfare in practice while maintaining the necessity of conceptual clarity in theory, it may prove dissatisfying to some scholars.

Conclusion: Grand Strategy as Agential Context

Gray's interpretation of grand strategy contains much potential conceptual depth yet to be explored but which may further develop grand strategy as an idea. He constantly reaffirmed "grand strategy [was] an essential level of behaviour in the general theory [of strategy]."⁴⁴ However, in order to encapsulate the meaning of Gray's grand strategic thought within his own thinking, one can rely on another word he used incessantly: context.

Gray always emphasized the importance of context, which could be understood as cultural, geographical, political, ethical, and so forth, with as many potential specific contexts as there are dimensions of strategy. As a context, grand strategy is unique. Unlike every other context or dimension of strategy, grand strategy can be considered an *agential* context. That is, the military agency inherent in strategy is situated within a broader context of grand strategy defined by simultaneous and complementary agencies of nonmilitary power.

*Military strategies must be nested in a more inclusive framework, if only to lighten the burden of support for policy they are required to bear. A security community cannot design and execute a strictly military strategy. No matter the character of a conflict, be it a total war for survival or a contest for limited stakes, even if military activity by far is the most prominent of official behaviours, there must still be political-diplomatic, social-cultural, and economic, inter alia, aspects to the war.*⁴⁵

43. Gray, *Strategy Bridge*, 113.

44. Gray, *Strategy Bridge*, 28.

45. Gray, *Strategy Bridge*.

Within a particular perspective on strategy which emphasizes strategic agency in war against a specific adversary, grand strategy is the master context. It encompasses all activity instrumentally relevant to defeating the enemy. Regardless of how deeply Gray, at any particular point in his career, delved into considerations and discussions of grand strategy, its contextual pressure on the practice of strategy is the single most consistent overarching theme in his grand strategic thought. As a repetitive drumbeat throughout his writing, this theme was a constant reminder to his readers that, though military power generally—and rightly—holds priority in war, it hardly ever produced the desired strategic effects and ultimate political consequences alone. “No matter how military the behaviour, and regardless of its geographical focus, all strategy is grand strategy.”⁴⁶ Gray’s understanding of grand strategy differs substantially from mainstream interpretations. While his assertions about the importance of understanding agential context—particularly the instrumental agencies surrounding military power—may be regarded as common sense, they are generally neglected in strategic practice.

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46. Gray, *Strategy Bridge*, 115.

Sherman and His Historians: An End to the Outsized Destroyer Myth?

Mitchell G. Klingenberg

ABSTRACT: For years, scholars have viewed the career of William Tecumseh Sherman in light of an antiquated destroyer myth and neglected his memoirs, which were written as a military textbook. This essay reviews Sherman's legacy and literature, both of which contributed to the advancement of modern military thought. His experiences may serve as a prescriptive text to servicemembers, providing critical lessons on military warfare and philosophy still relevant today.

William Tecumseh Sherman emerged from the American Civil War as a demon who practiced no restraint against noncombatants. This impression found widespread acceptance, especially among Lost Cause apologists. More than 150 years after the fact, the trope that Sherman initiated total war in America has colored popular, scholarly, and even professional military opinions. Even Henry James—foremost among literary modernists—regarded Sherman as a terrible “Destroyer.”¹ A scholar at the University of Chicago, writing under the spell of the Lost Cause and in the shadow of technological advances that marked World War II, claimed “from the military policies of Sherman and Sheridan there lies but an easy step to the total war of the Nazis, the greatest affront to Western civilization since its founding.”² Charles Royster's award-winning *The Destructive War: William Tecumseh Sherman, Stonewall Jackson, and the Americans* strengthened this association between the vengeful prosecution of war in nineteenth-century America and the federal commander.³ Other historians have perceived total war—the deliberate targeting of civilians and economic resources—as a distinctly American phenomenon, and Sherman as its key architect.⁴ Michael Fellman, in his critical psychohistory of Sherman, depicts the general as full of bloodlust and as a near lunatic who celebrated the destruction he wrought.⁵

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1. Henry James, *The American Scene* (New York: Harper & Brothers Publishers, 1907), 167.

2. Richard M. Weaver, “Southern Chivalry and Total War,” *Sewanee Review* 53, no. 2 (Spring 1945): 277.

3. Charles Royster, *The Destructive War: William Tecumseh Sherman, Stonewall Jackson, and the Americans* (New York: Alfred A. Knopf, 1991).

4. Lance Janda, “Shutting the Gates of Mercy: The American Origins of Total War, 1860–1880,” *Journal of Military History* 59, no. 1 (January 1995): 7–26; and T. Harry Williams, *The History of American Wars: From 1745 to 1918* (New York: Alfred A. Knopf, 1981), 312.

5. Michael Fellman, *Citizen Sherman: A Life of William Tecumseh Sherman* (Lawrence: University Press of Kansas, 1995).

Scholars no longer regard the Civil War as total, a revision that should have absolved Sherman of waging limitless war against the South as his fiercest critics alleged, yet students of the general seem unable to escape the destroyer myth.⁶ Some have added nuance to old views and conclude Sherman's hard-war policies were grounded in his tremendous intellect, respect for law, intuitive grasp of modern democracies at war, or grand strategic vision.⁷ Others have breathed new life into the destroyer narrative. For example, a student monograph from the US Army School of Advanced Military Studies claimed federal operational and strategic ends necessitated Sherman's use of total war.⁸ Predictably, in writing against old myths, or in refashioning them, scholars have added to their durability.

By accepting the destroyer narrative and viewing Sherman's campaigns through the prism of total war, students of war have lost sight of Sherman. They have ignored Sherman's lessons in the realm of operational art derived from campaigning across the upper and lower South: lessons, Sherman believed, that in logistics as well as "grand and minor tactics . . . added new luster to the old science of war."⁹ These lessons shaped the general's postwar thought and came with serious implications for the American profession of arms. Emphasis on Sherman's contribution to American military strategies of annihilation and maneuver have obscured the general's influence on the institutional development of the US Army.¹⁰ Linking Sherman's mastery of logistics to federal strategy in the Civil War is warranted, but absent other considerations, it neglects the fact that Sherman took his knowledge and experiences and arrived at the conviction that, in future wars, American officers should possess the command faculties to perform what he had accomplished. It was largely for this reason Sherman established postgraduate professional schools for US Army soldiers, the purposes of which were to produce ideal staff officers with experience of military operations at a "model Post."¹¹

6. Mark E. Neely Jr., "Was the Civil War a Total War?," *Civil War History* 37, no. 1 (March 1991): 5–28; Mark Grimsley, *The Hard Hand of War: Union Military Policy toward Southern Civilians, 1861–1865* (New York: Cambridge University Press, 1995); Wayne Wei-siang Hsieh, "Total War and the American Civil War Reconsidered: The End of an Outdated 'Master Narrative,'" *Journal of the Civil War Era* 1, no. 3 (September 2011): 394–408; D. H. Dilbeck, *A More Civil War: How the Union Waged a Just War* (Chapel Hill: University of North Carolina Press, 2016); and Aaron Sheehan-Dean, *The Calculus of Violence: How Americans Fought the Civil War* (Cambridge, MA: Harvard University Press, 2018).

7. John F. Marszalek, *Sherman: A Soldier's Passion for Order* (Carbondale, IL: Southern Illinois University Press, 2007); and James Lee McDonough, *William Tecumseh Sherman: In the Service of My Country, A Life* (New York: W. W. Norton & Company, 2016).

8. Christopher S. Hoffman, *Major General William T. Sherman's Total War in the Savannah and Carolina Campaigns* (Fort Leavenworth, KS: US Army Command and General Staff College, 2018).

9. William T. Sherman, "The Grand Strategy of the Last Year of the War," in *Battles and Leaders of the Civil War*, ed. Robert Underwood Johnson and Clarence Clough Buel, vol. 4 (New York: De Vinne Press, 1888), 250.

10. Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1977), 148–52; B. H. Liddell Hart, *Sherman: Soldier, Realist, American* (Cambridge: Da Capo Press, 1993); and Jay Luvaas, *The Military Legacy of the Civil War: The European Inheritance* (Lawrence: University Press of Kansas, 1988), 216–25.

11. Marszalek, *Sherman*, 442.

To understand Sherman as a whole, it is necessary to look beyond the Civil War and take a longer view of his US Army career. Sherman's record was not bound to his grasp of strategy or military operations; nor was it confined to his understanding of democracies or modern industrial societies at war. Rather, a holistic view of Sherman places the commander within the wider stream of Army institutional history. This view would do less to scrutinize Sherman's tenure as Commanding General of the US Army (a post noted for the frustration it brought to Sherman) as a missed opportunity for Army reform. Similarly, Sherman's establishment of the Artillery School of Practice in 1875 at Fort Monroe, Virginia, and the School of Application for Infantry and Cavalry at Fort Leavenworth, Kansas, in 1881, merit reassessment. Hardly evidence of Sherman's "conservative nature regarding military science," the creation of these postgraduate, professional-military institutions demonstrates how critical it was for Sherman that future soldiers apply military science of the day to campaigning, all with an eye toward fighting the next large-scale war.¹² Finally, Sherman must be understood as he viewed himself: as a teacher of war. Described in great detail in the *Memoirs of General W. T. Sherman*—a prescriptive text full of recommendations for military practitioners that has been misunderstood by scholars and warfighters alike—Sherman's campaigns yielded lessons that later found application as subsequent generations of US Army officers studied and practiced the art of war.¹³

Tethered to His Time?

Sherman's biographers have grasped some of these features, but only in part. Several have noted Sherman's intent to "bring the Line and Staff into closer harmony" during his tenure as Commanding General of the Army and thereby mitigate organizational problems that resulted from the general in chief's inability to requisition supply from the various bureaus and departments within the War Department.¹⁴ This arrangement, which Sherman regarded as an "absurdity," had long hindered the effectiveness of military organization. The question of who controlled the army and its resources—the commanding general or the secretary of war—was vigorously contested and never totally resolved.¹⁵ Yet with little variation, interpretations of Sherman's postwar efforts as a military reformer converge upon the conclusion that, insofar as he pursued postwar reforms, he attained modest results because he failed to end insoluble rivalries between the line, staff, and civil authorities.¹⁶

12. Marszalek, *Sherman*, 442.

13. William T. Sherman, *Memoirs of General W. T. Sherman*, ed. Charles Royster (New York: Library of America, 1990).

14. "Tenth Anniversary Meeting," *Journal of the Military Service Institution of the United States* 10, no. 37 (March 1889): 141.

15. Sherman, *Memoirs*, 896, 932–33; William B. Skelton, "The Commanding Generals and the Question of Civil Control in the Antebellum U.S. Army," *American Nineteenth Century History* 7, no. 2 (June 2006): 153–72.

16. Richard Allen Lewis, "Years of Frustration: William T. Sherman, The Army, and Reform, 1869–1883" (PhD diss., Northwestern University, 1968).

Liddell Hart's classic assessment of Sherman offers a case in point. He concludes of Sherman's supposed failure and subsequent decision to travel overseas to escape the fraught nature of civil-military politics, "if [Sherman] could not maintain his own world he could at least enlarge his knowledge of the world."¹⁷ Similarly, Fellman has noted, to whatever extent Sherman encouraged reform in some abstract sense, the general in chief nevertheless remained a "narrow and inflexible conservator of a tiny military elite" who fought least for change when it mattered most.¹⁸ John Marszalek's classic study provides a robust assessment of Sherman's tenure as commanding general, but it dwells on Sherman's political fights with the Congress and with the administration of President Ulysses S. Grant. Marszalek concedes "in many ways, Sherman . . . tried to hang on rather than innovate," and perceives in Sherman a basic pragmatism oriented toward "[convincing] a hostile nonmilitary world that army officers were professionals."¹⁹ Steven Woodworth also notes the political feuds that marked the commanding general's tenure—Sherman famously refused in 1873 to submit his annual report to the War Department, citing the secretary of war's control of the Army, and in 1874 moved his headquarters to St. Louis to escape Washington politics—even as it reiterates Sherman's unwavering commitment to military professionalism.²⁰ James Lee McDonough devotes only a handful of pages in the weightiest of Sherman biographies to the commanding general's attempts at military reform and reaches similar conclusions.²¹

Studies of US Army preparedness and professionalization in the postwar years are similarly limited. They view Sherman as too moored to the Civil War, which he perceived to be authoritative, since it was—at least in the American view—the definitive military event of the nineteenth century. Scholar-strategist J. P. Clark, in *Preparing for War: The Emergence of the Modern U.S. Army, 1815–1917*, contends such officers as Sherman "held a more rosy view of generalship during the war and consequently were more inclined to believe that drastic changes to the army's means of preparing officers for war were not necessary."²² Like Marszalek, Clark considers this view an innate conservatism. While Clark acknowledges Sherman and his peers were not "unthinking traditionalists," still in "deriving their identity from conflict" they shared a common "conceptual horizon."²³ Clark concludes that for Sherman the Civil War as an "intellectual tether limiting how far the

17. Liddell Hart, *Sherman: Soldier*, 412–13.

18. Fellman, *Citizen Sherman*, 291.

19. Marszalek, *Sherman*, 443.

20. Steven E. Woodworth, *Sherman: Lessons in Leadership* (New York: Palgrave Macmillan, 2009), 171–73.

21. McDonough, *William Tecumseh Sherman*, 665–69, 684–85.

22. J. P. Clark, *Preparing for War: The Emergence of the Modern U.S. Army, 1815–1917* (Cambridge, MA: Harvard University Press, 2017), 129.

23. Clark, *Preparing for War*, 129.

profession could stray from past forms,” an assessment that does not square with the Commanding General of the Army who declared, in 1883, the nation, having “passed through its measles and whooping-cough period,” stood “at the opening of a new epoch” and “on the threshold of a new era.”²⁴

Assessments of Sherman’s conservatism, whether framed in his failed pursuit of organizational reform, or in his purportedly modest capability to theorize about the future of war, miss the mark. They diminish lessons the Civil War bequeathed to the profession of arms and present Sherman as an uncritical soldier whose instincts were oriented toward preserving an institutional status quo. It is true, as commanding general, Sherman underscored the necessity of practical learning and familiarity with the duties of company-level command believing the company was “the basis of all good armies,” hence, good company commanders in time would prove competent generals.²⁵ It is also true Sherman did not place equal emphasis on the instruction of senior-level command, or what the US Army now considers strategic leadership as a category of professional knowledge.

Yet, to interpret these points as evidence of Sherman’s conservatism is to miss how he viewed intellect and practical action as working in concert to advance sound knowledge of the principles of campaigning and warfighting. For example, Sherman displayed great interest in professional military literature and nurtured the intellectual curiosity of officers, even penning short, analytical responses to articles he read in the *Journal of the Military Service Institution of the United States*.²⁶ Sherman served on the Military Service Institution’s board that selected awards for the most insightful and original articles published in the journal.²⁷ In his remarks on the institution’s tenth anniversary, Sherman emphasized all US Army and Navy officers should read widely in times of peace on matters historical, legal, and ethical, in addition to the latest professional literature.²⁸ Yet, he also cautioned soldiers in their scholarly pursuits should not neglect “the rudiments . . . the squad, company and battalion drill, the care of men, horses, wagons, etc., and the thousand and one things learned by absolute contact with soldiers but not from books.”²⁹ Sherman was “wily” and inquisitive, quick to talk, and always eager to hear the lessons his brothers-in-arms derived from their war

24. Clark, *Preparing for War*, 129; William T. Sherman, discussion response to Albert G. Brackett, “Our Cavalry: Its Duties, Hardships, and Necessities at Our Frontier Posts,” *Journal of the Military Service Institution of the United States* 4 (1883): 392.

25. A. C. Sharpe, “Organization and Training of a National Reserve for Military Service,” *Journal of the Military Service Institution of the United States* 10, no. 37 (March 1889): 17.

26. William T. Sherman, “Military Law,” *Journal of the Military Service Institution of the United States* 1, no. 1 (January 1880): 129–32.

27. “Annual Prize Essay,” *Journal of the Military Service Institution of the United States* 3, no. 12 (1882): 501.

28. “Tenth Anniversary Meeting,” 140.

29. “Tenth Anniversary Meeting,” 140.

experiences.³⁰ Even so, Sherman demonstrated little patience in the postwar years for criticisms of his campaigns from officers who lacked the skills, as he saw it, to “move a battalion properly, in the presence of the enemy, from Fort Monroe to Newport News.”³¹ Implicit in this statement is Sherman’s knowledge, acquired through extensive campaigning, that the movement of armies required skill. If an officer could not move a battalion, how could he possibly hope to move an army?

While the Civil War provided the dominant paradigm for Sherman, the practical lessons he derived from the war were not unimportant. The Civil War was the first large-scale conflict in global history in which railroads found widespread use and influence in military operations. This fact, and the federal use of waterways to move troops and supplies, bore significant consequences on unprecedented scales for the organization of logistics and expanded spheres of joint warfighting.³² Military operations in the theaters of the Civil War occurred in zones that dwarfed entire swaths of Europe. The distance from Baton Rouge, Louisiana, to Richmond, Virginia, for instance, exceeds the distance from Moscow to the Franco-German frontier.³³ Moreover, the topography in these theaters of operation proved uniquely difficult.³⁴

Sherman’s successes in the war, accomplished in its most difficult theater of operations, required careful intellectual study, tremendous attention to detail, and a wealth of personal experience. Sherman drew from geographical knowledge of the South he had acquired firsthand 20 years before.³⁵ Possessed of great imagination and a strong artistic sense, Sherman was able to map and picture roads in his mind.³⁶ In the recesses of his mind were hidden immediate solutions for the minute-to-minute problems encountered during the 1864 Savannah Campaign, especially how to feed, supply, and

30. E. Shippen, “General Sherman,” *United Service: A Monthly Review of Military and Naval Affairs* 5 (April 1891): 340.

31. Sherman quoted in John P. Wisser, “Practical Instructions in Minor Tactics,” *Journal of the Military Service Institution of the United States* 8, no. 30 (June 1887): 138.

32. Earl J. Hess, *Civil War Supply and Strategy: Feeding Men and Moving Armies* (Baton Rouge: Louisiana State University Press, 2020), 3–4.

33. Willey Howell, “Lieutenant-General Grant’s Campaign of 1864–65, I,” *Military Historian and Economist* 1, no. 2 (April 1916): 113–36; Willey Howell, “Lieutenant-General Grant’s Campaign of 1864–65, II,” *Military Historian and Economist* 1, no. 3 (August 1916): 274–95; Arthur L. Wagner, *Strategy: A Lecture Delivered by Colonel Arthur L. Wagner, Assistant Adjutant-General, U.S.A., to the Officers of the Regular Army and National Guard at the Maneuvers at West Point, Ky., and at Fort Riley, Kansas, 1903* (Kansas City, MO: Hudson-Kimberly Publishing Company, 1904), 28–29; and Williamson Murray and Wayne Wei-siang Hsieh, *A Savage War: A Military History of the Civil War* (Princeton, NJ: Princeton University Press, 2016), 6.

34. Sherman, “Grand Strategy Last Year,” 250; Sherman, *Memoirs*; and Hess, *Civil War Supply*.

35. William T. Sherman, *Address of General William T. Sherman to the Officers and Soldiers Composing the School of Application at Fort Leavenworth, Kansas, October 25, 1882* (Leavenworth, KS: 1882), 8; and Sherman, “Grand Strategy Last Year,” 252.

36. William T. Sherman, “To John Sherman,” in *Sherman’s Civil War: Selected Correspondence of William T. Sherman, 1860–1865*, ed. Brooks D. Simpson and Jean V. Berlin (Chapel Hill: University of North Carolina Press, 1999), 786.

protect his army in hostile territory.³⁷ These were herculean efforts that “taxed and measured forethought, energy, patience, and watchfulness” with utmost severity.³⁸ Prior to the campaign, Sherman knew by county the number of horses, hogs, beeves, and bushels of corn the land contained and how best to feed his army.³⁹ His memoirs are chock-full of references to provisions and the movement of men, mules, and materiel.⁴⁰ Additionally, they demonstrate the empirical habit of mind required for careful mathematical tabulations.

Leadership for Sherman was not mere adherence to a particular theory of command that moved soldiers by moral or physical example. Rather it was a precise knowledge of an army’s integral parts and a firm understanding of how all elements combined to produce unity of action—all to the end that a commander must act to keep his army intact and project power. “To do noble deeds is the end,” Sherman declared in 1889. He continued, “Action and intelligence must be combined.”⁴¹ Interpreted in this light, officers at the Artillery or the Infantry and Cavalry Schools were not merely participants in mundane forms of garrison duty, but rather practitioners learning to integrate practical knowledge of field armies with relevant study of military theory.

By the eve of the twentieth century, the Infantry and Cavalry School at Fort Leavenworth had clearly established itself as an institution where officers acquired practical field experience and engaged in serious intellectual work. Required readings featured books useful for an Army officer on the frontier such as William Carter’s *Horses, Saddles, and Bridles*, but also covered high-level matters, such as staff-level planning and execution of military operations, and constitutional, international, and military law.⁴² Students attended lectures on a variety of military subjects. They considered the historical development of field and coastal fortifications. Lectures on the military geographies of Canada, Chile, Mexico, and Central America demonstrated evidence of a widening strategic self-awareness and sense of

37. Victor Davis Hanson, *The Soul of Battle: From Ancient Times to the Present Day, How Three Great Liberators Vanquished Tyranny* (New York: Free Press, 1999), 212; and Henry Davenport Northrop, *Life and Deeds of General Sherman: Including the Story of His Great March to the Sea* (Cleveland: Lauer & Mattill, 1891), 562–63.

38. Thomas M. Vincent, “The Military Power of the United States, Indicated During the War of the Rebellion, 1861–’65, By: 1) The Mobilization and Disbandment of the Volunteer Forces. 2) The Logistical Measures, Attaching to the Staff Departments and Corps. In Other Words, the Science of the Staff,” *Journal of the Military Service Institution of the United States* 2, no. 5–8 (1881): 262.

39. Albert G. Brackett, “General William T. Sherman,” *United Service: A Monthly Review of Military and Naval Affairs* 5 (June 1891): 578.

40. Sherman, *Memoirs*, 649, 653, 658–61, 879–82.

41. “Tenth Anniversary Meeting,” 141.

42. William H. Carter, *Horses, Saddles, and Bridles* (Leavenworth, KS: Ketcheson & Reeves, 1895); Thomas M. Cooley, *The General Principles of Constitutional Law in the United States of America* (Boston: Little, Brown, and Company, 1880); William Winthrop, *Military Law and Precedents*, revised, 2 vols. (Boston: Little, Brown, and Company, 1896); and *Regulations and Programme of Instruction of the U.S. Infantry and Cavalry School, Fort Leavenworth, Kansas, 1895* (Leavenworth, KS: United States Infantry and Cavalry School, 1895).

American military power on an international scale.⁴³ Officers theorized about military technologies and their effects in shaping the character of modern war.⁴⁴ Nonetheless, they also took wider views, studying how nations of the world “[embraced] all preparations made and considerations entertained to meet the contingency of war”—in a word, military policy.⁴⁵

Scholars have long advanced the view that Sherman did not intend for the institutions he established to become laboratories of military thought. Drawing from Sherman’s correspondence, Marszalek and Clark claim his interest in postgraduate education for officers apparently went no further than the Artillery School of Practice and later the Infantry and Cavalry School, and that cultivating an intellectual habit of mind in officers through formal education was not among Sherman’s goals for these institutions.⁴⁶ Such interpretations accord with the findings of Timothy Nenninger, Carol Reardon, and Todd Brereton in their classic studies of education and professionalism in the officer corps.⁴⁷ It is perhaps true Sherman could not have imagined how the curriculum at the Infantry and Cavalry School would evolve over time, and it would be an exaggeration to cite him as the individual solely responsible for the sort of learning that happened there. Nevertheless, claims that Sherman possessed only modest designs for professional military education flatten the general’s well-documented plans for practical and intellectual officers to command the Army in the future and misunderstand the prescriptive nature of his memoirs.⁴⁸

The Memoirs as Prescriptive Military Text

Sherman began work on his memoirs sometime after 1870, and in 1875, D. Appleton and Company in New York published the *Memoirs of General W. T. Sherman* as a two-volume set. The *Memoirs* were an instant sensation,

43. C. H. Muir, *An Historical Sketch of Permanent Fortifications: A Lecture Delivered before the Class of Officers at the United States Infantry and Cavalry School, Fort Leavenworth, Kansas, October 29th, 1896* (Leavenworth, KS: United States Infantry and Cavalry School, May 1897); and Arthur Lockwood Wagner et al., *Military Geography: Lectures in the Department of Military Art, Delivered before the Class of Officers at the U.S. Infantry and Cavalry School, Fort Leavenworth, Kansas, 1893–1895* (Leavenworth, KS: United States Infantry and Cavalry School, 1895).

44. Joseph T. Dickman, *Balloons in War: A Lecture Delivered before the Class of Officers at the United States Infantry and Cavalry School, Fort Leavenworth, Kansas, March 27th, 1896* (Leavenworth, KS: United States Infantry and Cavalry School, April 1896).

45. Joseph T. Dickman, *Military Policy and Institutions: A Lecture Delivered before the Class of Officers at the United States Infantry and Cavalry School, Fort Leavenworth, Kansas, January 16th, 1896* (Leavenworth, KS: United States Infantry and Cavalry School, December 1896), 5.

46. Marszalek, *Sherman*, 442; and Clark, *Preparing for War*, 130–31.

47. Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881–1918* (Westport, CT: Greenwood Press, 1978), 21–31; Carol Reardon, *Soldiers and Scholars: The U.S. Army and the Uses of Military History, 1865–1920* (Lawrence: University Press of Kansas, 1990), 14; and T. R. Brereton, *Educating the U.S. Army: Arthur L. Wagner and Reform, 1875–1905* (Lincoln: University of Nebraska Press, 2000), 13–14.

48. Russell F. Weigley, *History of the United States Army* (New York: MacMillan Publishing Company, 1967), 273.

selling thousands of copies at seven dollars apiece, though how much they profited Sherman in the long run seems unclear.⁴⁹ Admirers wrote to him expressing their approval. But the *Memoirs* also generated political opposition and resulted in a pamphlet war, prompting Sherman to issue a revised and expanded edition in 1886.⁵⁰ On the whole, however, appreciation for Sherman's reminiscences—buoyed by praise from Ulysses S. Grant—surpassed criticisms of the work.⁵¹ In an appendix to his three-volume history of the Civil War, a leading European scholar declared Sherman's memoirs were of “incomparable value” to the historian.⁵²

Although Sherman's memoirs are amongst the most-cited sources for students of the Civil War seeking to understand his military career, historians have neglected the specific way he describes his military experiences and his purposes for taking this approach. One critic dismisses Sherman's memoirs as self-serving, treats them as a medium through which the general settled old scores, and gives the impression the text is unreliable.⁵³ Other scholars have wrongly assumed Sherman intended merely to write about the war as a historical event, and as a result the *Memoirs* have been underutilized as an instructional text. More than the fascinating anecdotes they contain, the *Memoirs* shed light on Sherman's knowledge of warfighting and its organizational demands. They invite students of war to see firsthand the complex dynamics of leading a field army in large-scale combat operations. Only in analytical works of Civil War logistics and supply have the *Memoirs* received proper treatment in this regard.⁵⁴

Similarly, students of military history have not wrestled with the important question of why Sherman published his memoirs. Russell Weigley's 1962 assertion, that Sherman deliberately composed the *Memoirs* to influence future generations of military practitioners, and his later observation that Sherman's achievement “[was] almost unique among such literary efforts in their thoughtfulness about the future of war,” have gone almost unnoticed.⁵⁵ This failure illuminates the disconnect between what historians profess

49. Charles Royster, “Note on the Text,” in Sherman, *Memoirs*, 1121; McDonough, *William Tecumseh Sherman*, 709; and Marszalek, *Sherman*, 457–58.

50. See entry for 1875 in Charles Royster, “Chronology,” in Sherman, *Memoirs*, 1112.

51. John Russell Young, *Around the World with General Grant: A Narrative of the Visit of General U. S. Grant, Ex-President of the United States, to Various Countries in Europe, Asia, and Africa, in 1877, 1878, 1879: To Which Are Added Certain Conversations with General Grant on Questions Connected with American Politics and History*, vol. 2 (New York: American News Company, 1879), 290–91.

52. Louis-Philippe-Albert d'Orléans, *History of the Civil War in America*, vol. 3 (Philadelphia: Porter and Coates, 1888), 853.

53. Fellman, *Citizen Sherman*.

54. Earl J. Hess, *Civil War Logistics: A Study of Military Transportation* (Baton Rouge: Louisiana State University Press, 2017); and Hess, *Civil War Supply*.

55. Russell F. Weigley, *Towards an American Army: Military Thought from Washington to Marshall* (New York: Columbia University Press, 1962), 83; and Weigley, *History United States Army*, 273.

to know about operational military history and what students of the war actually know about its crucial aspects. Memoirs of the war published in the postbellum era were legion but contributed little to the advancement of military thought.⁵⁶ As Weigley wrote:

*Sherman sought throughout his Memoirs to underline the strategic, tactical, and logistical lessons of the war. Conspicuously among the memoirists, he wrote a concluding chapter in which he tried to sum up the military precepts suggested by his experience. No other Civil War memoir comes so close to being a military textbook.*⁵⁷

Indeed, Sherman so desired the principles he derived from his wartime experiences to be prescriptive, he titled the ultimate chapter (in the first edition of his memoirs) and the penultimate chapter (in the revised and expanded edition) “Military Lessons of the War.” The instructive character of his memoirs is best understood in the context of Sherman’s conviction, expressed in an 1885 paper read before the Military Service Institution of the United States, that memoir and biography—the record of history—are “philosophy teaching by example.”⁵⁸

There are also deeper meanings to “Military Lessons of the War.” Much of the chapter functions as a philosophical reflection, in the Clausewitzian sense, on the nature of armed conflict. Sherman makes explicit references to the Crimean and Franco-Prussian wars and their military lessons.⁵⁹ Sherman wrote this chapter after his African, European, and Mediterranean tours from 1871 to 1872—during which he visited Austria, Egypt, England, France, Germany, Ireland, Italy, Malta, Russia, Spain, Scotland, Switzerland, and Turkey—a panoramic event that enabled him to travel to European battlefields and to engage in careful, comparative evaluation of military policy.⁶⁰ Travel also afforded Sherman opportunities to ponder the character of modern warfare in an international context.⁶¹ Conditions in the United States, he concluded, diverged significantly from those in much of Europe. Hardly evidence of his conservatism, this fact points to Sherman’s eagerness to consider alternative modes of military policy—as well as his boundless enthusiasm for studying armies, fortifications, and military schools—and to draw his own conclusions.⁶²

56. Weigley, *Towards an American Army*, 83.

57. Weigley, *Towards an American Army*, 83.

58. Sherman, *Memoirs*, 873; William T. Sherman, “The Militia,” *Journal of the Military Service Institution of the United States* 6, no. 21 (March 1885): 3.

59. Sherman, *Memoirs*, 887.

60. Royster, “Chronology,” in Sherman, *Memoirs*, 1111; Sherman, *Memoirs*, 893–94; William T. Sherman, “Sherman on Franco-Prussian Battlefields: Extracts from General William T. Sherman’s Diary of His European Tour in 1872,” *Century Magazine* 58, no. 2 (June 1899): 278.

61. Sherman, *Memoirs*, 885.

62. See, for instance, William T. Sherman, “General Sherman in Russia: Extracts from the Diary of General W. T. Sherman,” *Century Magazine* 57, no. 5 (March 1899): 866–75.

Far from being a provincial theorist tethered to the American Civil War, Sherman possessed a cosmopolitan outlook and demonstrated a willingness to graft, wherever useful, the best of European military thought and practice into his profession of arms.

These points have escaped Sherman biographers. Although Liddell Hart possessed impressive knowledge of Sherman's role as a military theorist, and perceived in his 1864 and 1865 campaigns the apotheosis of the indirect approach, he is silent on the theoretical aspects of Sherman's *Memoirs*.⁶³ Marszalek concludes, curiously, the *Memoirs* contain "too little insight into [Sherman's] philosophy of war."⁶⁴ Noteworthy among Sherman's chroniclers for his attention to the *Memoirs* as a work of military science is British historian Brian Holden Reid, who observes Sherman's opus reflected the commanding general's military priorities and was unique in revealing its author's "prime interest in the technical military dimensions of the war."⁶⁵ Alone of all Sherman scholars, Holden Reid correctly perceives the value of the *Memoirs* as less in their historical qualities—though they introduced important correspondence and official records from the Civil War into public view—than in their contribution to the advancement of military thought and Army professionalization in the United States.⁶⁶

Sherman outlined numerous lessons in his memoirs, encompassing an array of subjects pertinent to warfighting and developing a future fighting force: unit organization from company to corps; campaign logistics and supply; communications and technology; provisions and subsistence, as well as the nutrition and health of soldiers in a field army; the importance of education for civilian officers, and for officers trained at the United States Military Academy; the requisite size of the peacetime army to maintain preparedness and allow for rapid mobilization; the necessity of reforming the command structure of the army by subordinating bureaus under the auspices of the War Department to the authority of the commanding general; civil-military relations; and the discipline, habits, courage, and intelligence required of a general officer.⁶⁷

As with his precise campaign summaries, Sherman offered astute local insights in "Military Lessons of the War." His observation that the corps was "the true unit for grand campaigns and battle" and should maintain a

63. B. H. Liddell Hart, "The Signpost that was Missed," *Infantry Journal* 41, no. 6 (November–December 1934): 405–11; and Liddell Hart, *Sherman: Soldier*, 418–19.

64. Marszalek, *Sherman*, 462.

65. Brian Holden Reid, *The Scourge of War: The Life of William Tecumseh Sherman* (New York: Oxford University Press, 2020), 451–52.

66. Holden Reid, *Scourge War*, 452.

67. Sherman, *Memoirs*, 873–99.

complete staff and possess all means for independent action, in any theater, pointed to how the US Army would fight in future wars.⁶⁸ Additionally, this chapter demonstrates Sherman's belief in the promise of military education. While the Civil War proved capable volunteer officers could rise from civilian life, Sherman wrote, even these officers expressed regret at not having studied the "elementary principles of the art of war," a knowledge that might have spared them the hard experience of learning military operations in the "dangerous and expensive school of actual war."⁶⁹

Not long after the *Memoirs* appeared, Sherman's lessons made strong impressions on younger officers looking to shape the intellectual culture of their profession. Upon first glance, little is surprising about this impact since the *Memoirs*, like Grant's and General Philip Sheridan's reminiscences, were recommended reading for lieutenants preparing for US Army careers.⁷⁰ Almost immediately, however, Sherman's memoirs assumed a greater stature. On subjects ranging from tactics to telegraphic communications, and as a historical record, young officers appealed to the *Memoirs* as an authoritative text.⁷¹ This trend continued into the twentieth century. American soldiers in the new US Army drew from Sherman's experience in military policy, noting the need for an abundant supply of well-trained regulars to anticipate mobilization, and from Sherman's expertise in logistics, citing the *Memoirs* for the distance an army could operate away from its base of supply.⁷² Drawing from the *Memoirs*, and from Sherman's recommendation to abolish the knapsack as an article of US Army equipage, a French officer cited Sherman's 1864 experience as a helpful guide for determining the maximum weight an infantryman could carry without compromising combat effectiveness.⁷³ Hoping to avoid the casualties claimed in World War I, officers of the interwar period saw in Sherman's aversion to pitched battle a blueprint for success in future armed conflicts.⁷⁴

68. Sherman, *Memoirs*, 876.

69. Sherman, *Memoirs*, 878.

70. James A. Moss, *Officers' Manual* (Springfield, MA: F. A. Bassette Company, 1906), 39; and "From the U.S. Military Academy, April, 1903," *Journal of the United States Cavalry Association* 14, no. 49 (July 1903): 152.

71. John Bigelow Jr., "The Sabre and Bayonet Question," *Journal of the Military Service Institution of the United States* 3, no. 9 (1882): 79; F. C. Grugan, "The Use, Development and Influence of the Electric Telegraph in Warfare," *Journal of the Military Service Institution of the United States* 3, no. 11 (1882): 380; L. W. V. Kennon, "Considerations Regarding the 'Battle Tactics' of Infantry," *Journal of the Military Service Institution of the United States* 7, no. 25 (March 1886): 20, 43, 45; and W. S. Scott, "Kilpatrick's Raid Around Atlanta, August 18th to 22d [sic], 1864," *Journal of the United States Cavalry Association* 3, no. 10 (September 1880): 270.

72. H. B. Ferguson, "Recruitment, Mobilization, and Concentration," *Journal of the United States Infantry Association* 4, no. 3 (November 1907): 382–83; and John B. Barnes, "Theater of War," *Journal of the United States Infantry Association* 4, no. 4 (January 1908): 596, 598, 603.

73. Sherman, *Memoirs*, 882; and Carre, "Historical Review of the Load of the Foot-Soldier—Concluded," trans. P. L. Miles, *Journal of the United States Infantry Association* 5, no. 6 (May 1909): 932.

74. Bernd Greiner, "'The Study of the Distant Past is Futile': American Reflections on New Military Frontiers," in *The Shadows of Total War: Europe, East Asia, and the United States, 1919–1939*, ed. Roger Chickering and Stig Förster (Washington, DC: German Historical Institute and Cambridge University Press, 2003), 248–49.

Conclusion

In January 1865, while planning his advance against Charleston, South Carolina, from Savannah, Georgia, Sherman summoned naval lieutenant Stephen Luce, commander of the USS *Pontiac* (then conducting joint operations with Sherman's army), for a command council. "On reporting to headquarters," Luce recalled in later years, "General Sherman indicated in a few, short, pithy sentences, and by the aid of a map, his plan of campaign." The plan impressed Luce, who likened the experience to a religious conversion: "After hearing General Sherman's clear exposition of the military situation the scales seemed to fall from my eyes . . . It dawned upon me that there are certain principles underlying military operations which it were well to look into; principles of general application whether the operations were conducted on land or at sea."⁷⁵

From this council Luce learned there existed "such a thing as a military problem; and there was a way of solving it; or, what is equally important, a way of determining whether, or not, it was susceptible of solution." Luce concluded the secretary of the navy should possess a staff, and, to fulfill their duties, officers of this staff should undertake "a special course of study."⁷⁶ So inspired, Luce in 1884 helped establish the US Naval War College in Newport, Rhode Island, and served as its first president.⁷⁷ Sherman's contributions to the intellectual heritage of the US Navy are also born of the fact that, at Alfred Thayer Mahan's request, the general read and commented on a series of lectures that Mahan delivered at the Naval War College and later published in the compendium *Naval Strategy*.⁷⁸ Thus Sherman, the founder of the Army's Command and General Staff College and the inspiration for the Naval War College, ought to be known as the father of joint professional military education.

Academic historians who have neglected operational art and order-of-battle military history, or who view Sherman entirely through the prism of the Civil War, may be forgiven for seeing him in light of the old destroyer myth. It is perhaps unreasonable to expect specialized treatment of Sherman's acumen for military operations in studies written for popular readerships. All the more reason, then, to celebrate the

75. S. B. Luce, "Naval Administration, III," *Proceedings of the United States Naval Institute* 29, no. 4 (December 1903): 820–21.

76. Luce, "Naval Administration, III," 820–21.

77. Ronald H. Spector, "Professors of War: The Naval War College and the Modern American Navy" (PhD diss., Yale University, 1967), 44–52.

78. Alfred Thayer Mahan, *Naval Strategy: Compared and Contrasted with the Principles and Practice of Military Operations on Land; Lectures Delivered at U.S. Naval War College, Newport, R. I., between the Years 1887 and 1911* (Boston: Little, Brown, and Company, 1911), 124.

publication of Holden Reid's *The Scourge of War*, the latest installment in Sherman literature.⁷⁹ Holden Reid probes Sherman's intellect and moves the iconic figure beyond familiar conversations of total war; he assesses Sherman's US Army career at various command echelons from the bottom up to see Sherman's successes and failures at the tactical, operational, and strategic levels of war. On the subject of Sherman's tenure as commanding general, Holden Reid is the most thorough to date and points to new directions in Sherman scholarship.

Operational military historians and military practitioners, however, must be judged more harshly for neglecting the technical lessons Sherman bequeathed to the field. As one historian has written, the soldiers who matriculate through and commence from the US Army Command and General Staff College are Sherman's heirs.⁸⁰ Their vocation has been shaped by the model of professional military education Sherman established, and their future success as staff officers requires a mastery of the principles and skills he learned throughout the campaigns of the Civil War and sought to carry into the future. The lessons of Sherman's era may seem anachronistic to soldiers in the twenty-first century, but any mode of thought that views conditions of the historical present as above and beyond the circumstances of the past is hardly original, let alone helpful. The fact that the question, "Is the study of military history worth while?" (as one soldier put it in 1929), springs forth perennially reveals more about the practitioners who pose it than the usefulness of the past they ignore.⁸¹

Any view that assumes inevitable progress and boundless, revolutionary increases in the complexity of military operations will have its blind spots, and if warfighters are to be empathetic students of the past, they must see through the kind of analysis that comes on the cheap. Such worthy insights require careful study of history, delineating not only its differences from the present, but its continuities. Servicemembers of the twenty-first century should remember their predecessors in the Civil War era, the postbellum period, and every age since have typically regarded their epochs as exceptional and as uniquely marked by unthinkable advances in military science. They have always considered the future of warfare with uncertainty, believing it contained far greater

79. Holden Reid, *Scourge of War*.

80. Thomas Bruscino, "Introduction: Sherman's Heirs" (unpublished manuscript, consulted January 2021). Cited with the permission of the author.

81. C. M. Bundel, "Is the Study of Military History Worth While?" *Infantry Journal* 34, no. 3 (March 1929): 225–38.

complexities than armed conflict in any previous age.⁸² As students of war seeking to anticipate and comprehend its future, members of the Joint force should read the *Memoirs of General W. T. Sherman* to remind themselves they are not unique, and even their circumstances, while different, are not unprecedented. In the process, they can encounter and emulate William Tecumseh Sherman, one of war's greatest practitioners in any context.

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82. Dickman, "Balloons in War"; and J. Halpin Connolly, "War in a Mechanistic Civilization," *Infantry Journal* 46, no. 4 (July and August 1939): 306.

On “The US Army and the Pacific: Challenges and Legacies”

Brian McAllister Linn

This commentary responds to David M. Finkelstein’s article, “The US Army and the Pacific: Challenges and Legacies,” published in the Autumn 2020 issue of *Parameters* (vol. 50, no. 3).

In his *Parameters* article, David M. Finkelstein invites countries that presume to “question US willingness to defend American interests and those of our allies and partners [to] please review the historical record.”¹ One might expect the head of the Center for Naval Analyses’ China section to recall Sun Tzu’s stricture to put yourself beyond the possibility of defeat first before seeking to defeat an enemy. Any historically informed other country could quickly review that record, which includes, in barely a century, the Siberian intervention debacle, our passivity toward Japan’s aggression in China in the 1930s (the USS *Panay*), the abandonment of the Nationalist Chinese and South Vietnam, and the over half-century’s imprisonment of the USS *Pueblo*. More relevant to *Parameters*’ readership, and especially Army officers, is that a review of the historical record does reveal two things Finkelstein fails to acknowledge. The first is a tradition of the US Navy drawing the Army into its Pacific strategic agenda. The second is that while jointness is a laudable objective, there are not only fundamental differences between sea power and Landpower, but between the US Army’s and Navy’s core interests.

Finkelstein dismisses the accusation that the United States is an “external actor” and “latecomer interfering in Asian security affairs.” He asserts the region’s importance to “our national well-being” dates “to the earliest days of our country as a maritime trading nation.” Indeed, he alleges the United States’ “permanent military presence” in the region has been manifest since 1835, with the creation of the East India Squadron. That the establishment of this squadron coincided with a maritime trade shipping narcotics and armaments to Asia and exporting its indentured labor goes unsaid. Moreover, it was neither economic nor national interests that prompted a US Navy commodore to defy his government’s instructions to remain neutral and instead assist a British attack against Chinese forces during the Opium Wars. In short,

1. David M. Finkelstein, “The US Army and the Pacific: Challenges and Legacies,” *Parameters* 50, no. 3 (Autumn 2020): 113–19, <https://press.armywarcollege.edu/parameters/vol50/iss3/11/>.

contrary to Finkelstein's altruistic narrative, from the beginning both our nation and our Navy's foray into the Pacific provides ample justification for Asian suspicion of our commercial and security motives today.

One of Finkelstein's arguments for an expanded Army role in the Indo-Pacific is its alleged "firm foundation of continuity of presence and a deep operational legacy." But the historical record undermines this assertion. The Army's permanent presence only began in 1898 after Commodore George Dewey's Asiatic Squadron shattered the antiquated Spanish squadron at Manila Bay. Army leaders, who had naively assumed the Navy might have warned them of this initiative, were soon ordered to send an expedition to the Philippines. The Army captured Manila with relative ease—though the Navy claimed the credit. Far more difficult was the Army's long and bloody conquest of the archipelago to secure the strategic results of Dewey's cheap one-day, one-off tactical stroke.

This pattern of the Navy looking to the Army to resolve its problems continued with the emergence of the nation's first true joint strategic problem: defending the new Pacific empire. The Navy insisted on a Philippine base to maintain its battle fleet in Asian waters but refused to commit that fleet to defend it. During the Japanese-American war scare of 1907, the Army's planners discovered the Navy had stationed its four armored cruisers in Japanese harbors. Its sole Pacific-based battleship could not depart from the West Coast for two months and only two ancient monitors and a few torpedo boats defended the Philippines. At that time the Army had 15,000 soldiers—almost a quarter of its total personnel—in the archipelago. With few exceptions, insisting the Army stay to fight for an Asian base it declined to defend remained the Navy's position for the next three decades. The consequences played out tragically in 1942 when the Asiatic Fleet departed the Philippines; those soldiers left behind suffered the greatest land defeat in the nation's history.

For Army strategists studying the Pacific's legacy and challenges, I offer three strategic truths proposed by the great naval strategist Julian Corbett over a century ago. First, one of the great benefits of maritime power is the freedom it offers a nation to *limit its military commitments*. Second, *naval forces are able to sail away from their commitments* and armies are not. A final and related point is Corbett's observation that "*command of the sea*" may be general or regional, fleeting or permanent. The United States' "uncontested military dominance" in the Pacific after World War II was a temporary condition and a reversal of previous

policy. The United States (and its Navy) had conceded *regional* maritime supremacy in the Far East to the British throughout the nineteenth century and to Japan implicitly after 1907 and explicitly in 1922 with the Washington Naval Treaty's 5-5-3 ratios. The *Pueblo* Incident might be taken as indicative of an insignificant naval power's ability to impose *fleeting local command* over its waters. Indeed, only by the most qualified definition of *uncontested* can Finkelstein substantiate his claim for American military dominance in the Pacific since World War II.

The Army serves the nation and it will go where the nation bids. But its strategists must rigorously study costs, benefits, dangers, and likely consequences. Appeals to a faux-historical narrative should have no place in their assessment. A balanced analysis of the Army's "deep operational legacy" in the Pacific—the controversial pacification of the Philippines, the humiliation of Bataan, the bitter interservice battle over the central or southwestern Pacific, the "Big Bugout" and the Korean stalemate, and the still embittering Vietnam War—should be as much a source of caution as an incentive.

Army strategists would do well to question Navy-generated demands for expansion in the Pacific and examine their historic legacy there. They could start with one of their own "Old China Hands." In a 1969 letter to an Army War College student concerned about Vietnam, General Matthew Bunker Ridgway outlined the following strategic principles:

. . . identify what are and what are not our vital national interests. Commit armed forces only in a situation that lies clearly within the zone of those interests, and where all other means offer little or no hope of being effective. Recognize that the world has radically altered since the days of 'gunboat diplomacy', or when, as in the case of Great Britain in the 19th century, a small military commitment might be rewarded with large national gains. Reject any political involvement that might gradually commit us to military efforts that could jeopardize our basic security or those vital national interests which cannot be compromised.²

2. Matthew B. Ridgway to Gerald G. Gibbs Jr., letter, October 18, 1969, in Gerald P. Gibbs, "United States Policy Towards Future Wars of National Liberation (student paper, Army War College), US Army Heritage and Education Center, Carlisle, PA.

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The Author Replies

The author declined to respond.

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Book Reviews

ARMED FORCES AND SOCIETY

Women as War Criminals: Gender, Agency, and Justice

By Izabela Steflja and Jessica Trisko Darden

Reviewed by Dr. Heather S. Gregg, professor of military strategy,
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Holding perpetrators of war crimes accountable became a focus of post-conflict justice in the twentieth century and has continued to be a critical component of war termination today. Despite several high-profile post-conflict tribunals, ranging from the genocide in Rwanda to the bloody conflict in the former Yugoslavia, few women have been brought to trial as war criminals—and even fewer have received sentences equal to their male counterparts. *Women as War Criminals* investigates this contrast, seeking to understand this bias and its underlying conditions and “provide a more holistic approach to women and justice” (9).

At the heart of their argument, Izabela Steflja and Jessica Darden contend “women as war criminals go unnoticed because their very existence challenges our deeply held assumptions about war and about women” (3). They focus on the social and political contexts that produce gender and racial stereotypes and note women are often victims of violent conflicts. For this reason, post-conflict justice has focused on bringing perpetrators of these crimes—most often men—to trial and overlooked the possible role of women. These stereotypes describe women as inherently peaceful, nurturing, and motherly and assume women engage in atrocities either because they are monsters or they have been manipulated by male leaders, thus denying the women agency in their acts. Steflja and Darden also highlight the growing body of literature supporting the *Women, Peace, and Security Act of 2017* and its emphasis on women as peacemakers and not perpetrators of violence—another bias downplaying the role of women as perpetrators of war atrocities. Ultimately, gender-based stereotypes about women help explain the paucity of women brought to justice as war criminals.

The authors test their argument through four short cases of women brought to trial for war crimes across several cultures and conflicts: Biljana Plavšić, the former president of the Bosnian Serb Republic (Republika Srpska), and her role in directing mass murder and rape in Bosnia and Herzegovina; Pauline

Nyiramasuhuko, former minister for women and family development in Rwanda, and how she facilitated the rape and murder of women in the Rwandan genocide; Lynndie England, a former enlisted US Army Reserve soldier, tried by Army courts-martial for violations of the Uniform Code of Military Justice in connection with the torture and prisoner abuse at the Abu Ghraib prison in Baghdad, Iraq; and Hoda Muthana, an American-born Yemeni woman who emigrated to Syria and joined ISIS.

Steffja and Darden examine the women's court cases, noting where gender stereotypes were used as a defense. For example, all four women used the defense of being mothers to challenge their charges, implying the nurturing nature of mothers could not allow for murder, rape, or torture. Interestingly, Plavšić used this defense—having no children of her own—as “the Mother of the Serb nation” in Bosnia to seek a lesser charge and sentence (11).

Critically, each of the defenses centered on the women being manipulated by men to perpetrate war crimes, including Nyiramasuhuko, who ordered the rape of fellow women in Rwanda, and England, whose courts-martial focused on her intellectual challenges and coercion by male soldiers. From these cases, the authors conclude: “A man made me do it’ remains a plausible defense” (122). In other words, these women were presented as lacking agency and were thus not responsible for their actions. Despite this fact, each of the women defended their actions outside of court, including in media interviews, memoirs, and biographies.

Notably, Steffja and Darden propose racial bias also played a role in the verdicts and sentencing of the perpetrators. Nyiramasuhuko, a Black African woman, is the only woman still in prison. Muthana, an Arab Muslim, remains in Syria for her ISIS affiliation and has not been granted permission to return to the United States. By contrast, Plavšić and English, both White Western women, are free; therefore, the authors surmise “white women can negotiate plea deals, but Africans certainly cannot, not even the Christian Nyiramasuhuko” (127).

Women as War Criminals concludes “women war criminals are a long-standing phenomenon” requiring greater attention in post-conflict literature (121). The implications of the authors’ research are important to understanding the role women play as active and willing participants in war and holding them accountable for the atrocities they choose to commit. It points to the need for the *Women, Peace, and Security Act of 2017* to include the role of women not only as peacekeepers, but as war makers. Finally, the book offers a cautionary note on the use of gender-based stereotypes in trial defenses: women can and do perpetrate war crimes and should be held accountable.

BIOGRAPHY

Agent Sonya: Moscow's Most Daring Wartime Spy

By Ben Macintyre

Reviewed by Dr. W. Andrew Terrill, professor emeritus, US Army War College

Ben Macintyre's *Agent Sonya* is an insightful and important biography of Colonel Ursula Kuczynski, who went by the code name Sonya throughout her long and eventful career as a spy for the Soviet military intelligence (GRU). She was born in 1907 into a wealthy German family, with a father who was sympathetic to communism and supportive of the Soviet Union. At 17, she described herself as a member of the German Communist Party and participated in a number of communist events. Macintyre often simply calls her Ursula due to her use of false identities and various surname changes through marriage. He describes her as a brilliant, ambitious, adventurous, and risk-addicted operative who was dedicated to her craft as a Soviet intelligence agent.

Ursula's transformation from a communist activist to a Soviet agent occurred when she traveled to Shanghai, China, with her first husband. Like most European expatriates, Ursula lived in the privileged international settlement portion of the city and had little contact with the Chinese. In her community of expatriates, she met the "radical American writer, Agnes Smedley," whose work she greatly admired (18). Smedley worked with Soviet intelligence and felt Ursula was worth recruiting as a GRU operative. Moscow agreed, and Smedley set up a meeting between Ursula and Richard Sorge, the most senior Soviet GRU agent in Shanghai at that time, who would eventually become one of Stalin's most important spies. Ursula agreed to work with Sorge and help the communist cause in any way she could. This agreement was an important commitment as the Chinese Public Security Bureau ruthlessly hunted down both Chinese and foreign communists, and as a German Jew she could expect no help from Nazi diplomats.

Sorge trained Ursula in the fundamentals of clandestine action and encouraged her to take advantage of her penchant for languages and study Russian. Later, she agreed to attend a seven-month intelligence training course in Moscow, despite having to leave her family. After completing the training, Ursula was sent

to Japanese-controlled Manchuria to help arm, supply, and finance communist Chinese resistance forces while evading the ruthless Japanese secret police, the Kempeitai.

Following her successful work in the Far East, Ursula was sent to Poland, where she felt her assignment was little more than serving as a “secret postman” (143). GRU headquarters concurred she was being underused and sent her to Switzerland to recruit her own team of agents to infiltrate Nazi Germany. While she did excellent work there, Moscow later ordered her to leave due to an increased danger of being discovered and even deported to Germany (since she had entered Switzerland on a German passport). With few other options, Ursula divorced her husband and married a British communist and member of her network, Len Beurton. She then left for the United Kingdom, arriving in February 1941 as a legal immigrant and resuming her activities as a GRU agent.

Macintyre notes that unlike Soviet agents, Nazi spies were not active in the United Kingdom between 1939 and 1945 due to the quick detection of their radio transmissions by codebreakers at Bletchley Park. Throughout the war, the Nazi danger remained the central concern for British domestic security force, MI-5, while Soviet espionage was of only limited interest. These priorities helped Ursula advance in her work and become the handler for one of the most important spies in history, the expatriate German physicist and lifelong communist, Klaus Fuchs. Fuchs appeared to the British to be uninterested in politics, except for opposing the Nazis, and correspondingly was allowed to begin working on their nuclear research project in June 1941.

As his research progressed, Fuchs became increasingly unhappy the West was not sharing its atomic secrets with its Soviet ally. This discontent led him to contact Soviet intelligence and offer to obtain secret information on their behalf. Eventually, Fuchs was assigned to Ursula, who supervised his intelligence-gathering activities. She worked with Fuchs for about a year until he was assigned new handlers after he was sent to the United States to participate in the US Manhattan Project. After the war, the British arrested Fuchs when US codebreakers cracked portions of previously indecipherable Soviet messages. Ursula was implicated in Fuchs’s espionage but not conclusively. After several badly bungled MI-5 interrogations and the defection of one of her agents to British intelligence, Ursula and her children successfully fled to East Germany, where she was considered a hero. She died there in July 2000.

Macintyre is a leading contemporary writer on historical intelligence topics, and this book is one of his best. He interviewed all of Ursula’s living family members and numerous other people involved in her story. Ursula’s own writings later in life, which encompassed both fiction and nonfiction, also

proved useful as did declassified MI-5 files and the surviving publicly available records of other intelligence services.

Agent Sonya is interesting because of its detailed consideration of the espionage activities of human spies, although it is clearly outdated on the use of technology. Ursula's career also illustrates how small mistakes in the fields of intelligence, counterintelligence, and general security can lead to serious consequences. There are numerous lessons in the book about how espionage and counterespionage activities should be addressed to maximize their potential for success and how such activities can be bungled.

IRREGULAR WARFARE

Special Operations: Out of the Shadows

Edited by Christopher Marsh, James D. Kiras, and Patricia J. Blocksome

Reviewed by Major Zachary Griffiths, director, Commander's Action Group,
Special Operations Joint Task Force Operation Inherent Resolve

In the last 20 years, US Special Operations Command has doubled in size and tripled in budget. But has research into special operations kept pace? *Special Operations: Out of the Shadows* introduces academic special operations research to nonspecialists while delving into the field's "debates and cutting edge research" (4). Skillfully assembled by the editors of *Special Operations Journal*, this volume includes updated articles previously published in the journal and newly written chapters.

This publication marks an important milestone in special operations studies—publishing an initial volume of works. *Special Operations* offers a more generalized and American focus than *Special Operations from a Small State Perspective* (2017), which explored Scandinavian special operations. Other special operations research can be found in *PRISM: A Journal of the Center for Complex Operations*—which published Austin Long's "The Limits of Special Operations Forces" and "Special Operations Doctrine: Is It Needed?" by Charles T. Cleveland, James B. Linder, and Ronald Dempsey in 2016—or focused outlets such as *Special Operations Journal*.

Special Operations is divided into theoretical and applied sections. The editors open the theoretical section with a strong chapter on the history of and research into special operations. Then, James D. Kiras in chapter 2 and Christopher Marsh, Mike Kenny, and Nathanael Joslyn in chapter 3 debate whether special operations needs a comprehensive theory. In chapter 4, Kevin L. Parker rejects formalizing a human domain of conflict but calls on other domains to integrate human factors. Homer W. Harkens in chapter 5 offers information on the evolution of special warfare as a concept that both novices and experts will find valuable. Dan Cox's chapter 6 describes terrorism's connection with insurgency and concludes with important recommendations for unconventional warfare practitioners. The theoretical section concludes with Ben Zweibelson's call for greater incorporation of design thinking in special operations in chapters 7 and 8.

The applied section connects special operations with contemporary security issues. Richard Rubright, leading with chapter 9, argues the United States must weigh the costs and benefits of employing proxy forces in pursuit of our goals because of the challenges in controlling their actions. In chapter 10, Charles K. Bartles offers a well-grounded view of the debate over the Gerasimov Doctrine and concludes with a valuable discussion of Russian irregular warfare organizations. Paul S. Lieber and Peter J. Reiley in chapter 11 provide an accessible and practical guide to combating ISIS radicalization efforts with psychological operations grounded in social science. In their respective chapters, James M. DePolo in chapter 12 and Steven R. Johnson in chapter 13 describe the evolution of American foreign security cooperation organizations and how the authorities for military support to countering transnational terrorism have evolved. The editors conclude by offering direction for special operations research, with emphasis on understanding contributions to space and cyber operations.

Special Operations offers a rich bibliography—more than 17 pages—of peer-reviewed articles, history, military journals, military doctrine, and official government publications which provides fodder for future research in a notoriously difficult subject to study. Unfortunately, few authors drew on student papers from the Naval Postgraduate School special operations/irregular warfare curriculum or the service staff colleges. Despite their mixed quality, many of these papers could offer important unclassified perspectives into issues facing operational special operations forces that are ripe for further study.

Unfortunately, as a collective work, *Special Operations* encourages special operations forces to do more without acknowledging the opportunity costs. For example, Zweibelson acknowledges the high costs of leaders investing “their own valuable time” and a “special operations design education [that] needs to mirror the long-term operator development glide path” (81, 89). However, he never supports his assertion that “long term deliverables will undoubtedly return on the investment in [unrecognizable] ways” (96). With flat and declining budgets, what areas should be cut to make room for increasing the countering of transnational crime or increasing design thinking? *Special Operations* neither articulates targets for cuts nor makes compelling cases for the new ideas.

The individual chapters vary in quality and scope, a tension exacerbated by aiming for both novice and expert audiences. Generally, shorter chapters, like those by Parker on human factors and Harkins on special warfare, were more engaging and challenging than their longer counterparts. Similarly, Lieber and Riley structured their psychological operations chapter around utilizing a compelling method to defeat ISIS radicalization. In a few places, the authors descended into jargon (see “change poet” on page 85), but terms were generally defined and acronyms minimized throughout (85).

Acceptable for novices and experts interested in the field's debates, *Special Operations* will inspire students in developing their research projects and reveal new perspectives to academics studying irregular warfare and related topics.

Nonstate Warfare: The Military Methods of Guerillas, Warlords, and Militias

By Stephen Biddle

Reviewed by Ben Wermeling, defense and operations research analyst

For much of the twenty-first century, the American military has spent considerable effort fighting nonstate actors such as al-Qaeda and the Taliban. This effort has sparked considerable scholarly and military interest in nonstate actors among the United States and Western countries. Much of the resulting literature assumes nonstate actors primarily wage guerilla or irregular warfare. In recent years, though, some nonstate actors have used methods associated more with conventional warfare. In the Donbas War, for example, Ukrainian separatists fought from entrenched positions using heavy weaponry, including tanks and artillery, to hold ground. Stephen Biddle explores these variances in military behavior in *Nonstate Warfare: The Military Methods of Guerillas, Warlords, and Militias*.

Biddle's central argument asserts the military methods of nonstate actors can be predicted by their internal politics and perceived stakes in conflict, as well as the state of military technology available. Early chapters elaborate on this theory. First, Biddle describes a spectrum of military behavior based on common understandings of irregular and conventional warfare and provides a system to code this behavior by considering factors such as the willingness of combatants to contest territorial control and their distinguishability from noncombatants.

The sophistication of military technology plays a substantial role in determining optimal behavior along this spectrum. Increasingly, lethal weapons provide incentives for both state and nonstate militaries to employ methods closer to the midspectrum. Such weapons require militaries to operate from concealed and covered positions in dispersed groups, as opposed to massed formations, to limit casualties. Demands for greater dispersion make it more challenging for states to concentrate their usually larger militaries to crush nonstate forces that

try to contest territory, making relatively conventional methods more viable for nonstate forces. In particular, Biddle contends the proliferation of precision-guided weapons, like anti-tank missiles, since the late-twentieth century has given nonstate actors a much better capability to contest territory.

Midspectrum warfighting requires coordination and specialized, interdependent roles to be effective. Not all nonstate actors will be able to master complex techniques such as combined arms operations or fire and movement tactics. Nonstate actors with more mature institutions and high perceived stakes in conflict are more likely to implement midspectrum methods and perform them effectively. Mature institutions allow greater trust and coordination among the elites and their factions within nonstate groups. Additionally, if elites perceive high stakes in the conflict, such as their possible death or imprisonment, they are more willing to incur the expensive costs of training personnel in midspectrum warfare.

The case studies—selected based on their ability to test the theory—are well chosen: Hezbollah, Jaysh al-Mahdi, the Somali National Alliance, the Croatian National Guard, the Serbian Army of Krajina, and the Viet Cong. Biddle's choices will lead to greater confidence if the theory predicts outcomes correctly and more accurately than prior theories. Other explanations of nonstate actors' military behaviors include whether they come from tribal cultures that supposedly encourage irregular warfare or the degree of materiel superiority their state opponents possess. To gather sufficient granular detail to code military behavior, Biddle conducted interviews with participants in most of the conflicts analyzed.

The varied case studies offer interesting insights and comparisons while providing solid evidence for the new theory. Several examples are instructive. Hezbollah comes from a tribal background and receives Iranian support, much like Jaysh al-Mahdi did before its disbandment. Despite facing the powerful state militaries of Israel and the United States, the military methods of the two groups differed significantly. Hezbollah had mature institutions and perceived high stakes in the 2006 Lebanon War, which facilitated the organization's remarkably conventional methods in battle, unlike Jaysh al-Mahdi.

When the Americans intervened in the Somalian Civil War, the Somali National Alliance fought more conventionally on the margin despite hailing from a tribal society and fighting a superpower. American efforts to kill insurgent leadership drastically raised the stakes of the war compared to the earlier skirmishes to loot resources.

The Viet Cong, as described in the last case study, was a sophisticated organization fighting for existential stakes; however, it waged predominantly guerilla warfare. When the Viet Cong attempted more conventional warfighting

in the Tet Offensive, American forces inflicted severe losses. The light 1960s-era weapons (from a time before widespread precision firepower) could not stop massed state forces from overrunning the Viet Cong's positions with relative ease.

The book concludes with inferences about future warfare. Given the proliferation of increasingly lethal weaponry, both state and nonstate actors still face increasing incentives to converge on midspectrum military methods, further narrowing differences in behavior. In this probable future environment, Biddle suggests the US military adopt a lighter, updated variation of its legacy force structure with more dismounted elements, rather than a more radical transformation that focuses on very irregular or conventional forces. This structure would maximize the military's capability against the modal future opponent while maintaining the residual ability to fight enemies using methods toward the edges of the spectrum of military behavior.

Nonstate Warfare is timely since nonstate actors in recent decades have used more conventional military methods and little research has attempted to explain the differences in nonstate military behavior. Biddle's thorough coding methodology to operationalize military behavior offers a more precise understanding of warfare than the guerilla/conventional dichotomy, replacing vagueness with conceptual clarity. His well-researched case studies strongly support his theory. An area for minor improvement would be a more significant differentiation of assessed wartime stakes, which would provide a more nuanced analysis. Though beyond the scope of the book, a theory explaining nonstate warfighting before the twentieth century would also be valuable.

The book's main insights, that state and nonstate actors face similar incentives and that their chosen military methods differ in degrees rather than categories, have important implications for both military professionals and scholars. *Nonstate Warfare* is highly recommended reading for both groups.

MILITARY HISTORY

Battlegrounds: The Fight to Defend the Free World

By H. R. McMaster

Reviewed by Dr. John C. Binkley, adjunct professor of history,
Loyola University of Chicago

After four tumultuous years of the Trump administration, the Biden-Harris administration needs to reset American foreign policy. H. R. McMaster—a retired US Army lieutenant general and the former national security advisor to President Donald Trump—addresses this issue in *Battlegrounds: The Fight to Defend the Free World*. He clearly notes any reset of American foreign policy must focus on a group of important battleground nations that will decide the direction of America's future in the world, as well as the state of democratic institutions in the United States and the West.

While McMaster may have been tempted to write a tell-all book memorializing his experiences in the Trump administration, he rejected that opportunity to write a primer which outlines the direction of an American foreign policy reset. In doing so, he focuses on what he considers key battleground arenas: China, Iran, the Middle East, North Korea, Russia, and South Asia. He also recognizes collateral arenas such as environmental and climate politics and the future role of democratic institutions, all issues a Biden-Harris administration cannot ignore.

McMaster, who received a PhD in history from the University of North Carolina at Chapel Hill, is well known for his seminal study of the Vietnam War, *Dereliction of Duty* (1997). Consequently, as a historian and foreign policy practitioner, he analyzes each battleground and reviews the historical background of each battleground arena to understand the policy situation as it existed at the end of the Trump administration. In each case, he finds American foreign policy over the last several administrations, and in some cases over much longer periods of time, was fundamentally flawed. While each battleground arena has its peculiarities based on historical and geographic dynamics, the underlying reasons for the flawed policies are twofold: a tendency of American policy to be driven by *strategic narcissism* and, conversely, an absence of *strategic empathy*.

Strategic narcissism is “the tendency to view the world only in relation to the United States and to assume that the future course of events depends primarily on US decisions or plans” (15). Strategic empathy is the ability to appreciate the desires and goals of other nations and their people and to understand these groups can affect policy regardless of America’s desires. This two-sided policy failure has warped America’s ability to understand the dynamics at work in the battleground nations, placing blinders on American policymakers.

After a historical overview, McMaster discusses how America should deal with each battleground. While the specific proscriptions offered vary from battleground to battleground, there are commonalities among them. First, he suggests American foreign policy needs to be robust and, in fact, very hawkish in nature. In this regard, he is willing to confront adversaries and friends alike. This robust almost aggressive policy is particularly clear regarding China, Iran, North Korea, and Russia. He argues the United States should push back against Russian aggression in the Ukraine and Russian disinformation worldwide. Similarly, the United States needs to confront Chinese movements in the South China Sea and China’s theft of Western intellectual and technological property.

In both cases, McMaster makes a great deal of sense. Moreover, his analysis of North Korean interests and motivations for developing a nuclear weapon seems to be spot on. In the case of Iran, he notes the nation must ultimately make a decision: either receive the benefits of a responsible member of the international community or exist in isolation. McMaster understands the Joint Comprehensive Plan of Action—which the Obama administration hoped would halt Iran’s nuclear arms program and that the Trump administration scrapped—only addresses a symptom of the difficult relationship between Iran and the West. Constant pressure is the only approach that may force Iran to choose the path toward responsibility.

Second, as a student of the Vietnam War, McMaster correctly recognizes the flaws in that war being repeated in Afghanistan and Iraq. These include the failure to develop a long-term strategy, which can gain the support of the American people, and a lack of appreciation for the social aspect of the wars. Having said that, readers might wonder how McMaster would gain public support for what appears to be an open-ended conflict.

Third, McMaster seems willing to apply tough love to erstwhile allies such as Pakistan and the countries of the Middle East. Pakistan’s role as a nuclear power makes its relationship with America more important than the situation in Afghanistan.

Though a good read, *Battlegrounds* has one major flaw—or, in this case, an omission. While McMaster claims to be absolutely apolitical, which partially explains his decision to limit writing about the Trump administration, he actually makes a political choice by virtue of his criticisms of the Obama

administration and what he considers a new left slant of Democratic foreign policy. He sees lack of consistency and trust to be two great problems of American foreign policy. Yet, he seems unwilling to confront the Trump administration for exacerbating these problems. At the same time, while he wants the United States to push back against Putin's aggression, he ignores Trump's obsequious approach toward the Russian leader. In short, while he is readily willing to blame other administrations for their faults, he fails to confront the impact of Trump's actions.

While readers can agree or disagree with McMaster's recipe for America's foreign policy success, they cannot ignore the issues he raises. Consequently, I heartily recommend the book for anyone interested in the future direction of American foreign policy.

Atomic Salvation: How the A-Bomb Attacks Saved the Lives of 32 Million People

By Tom Lewis

Reviewed by Michael E. Lynch, research historian,
US Army Heritage and Education Center

In *Atomic Salvation*, Tom Lewis explores the question of whether or not the use of the atomic bomb in World War II was necessary to end the war against Japan. Today this question has taken on a moral and emotional dimension, as many people conflate the strength of the two relatively small atomic bombs used on Hiroshima and Nagasaki with the power of today's nuclear weapons, concluding they were overkill and unnecessary. Reality, however, shows conventional fire bombing raids on Tokyo were far more devastating and caused greater casualties than either of the two atomic bombs. While *Atomic Salvation* purports to be an "exhaustive analysis" of the necessity of using the atomic bomb, it presents little new information (7).

Lewis argues the atomic bomb was necessary and its deployment saved many more lives than it took. Analyzing the potential lives to be saved based on projected daily casualty figures from the fighting in the Pacific and using plans for Operation Downfall, the pending invasion of the Japanese Islands projected to last until the end of 1946, he calculates the potential

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2020

364 pages

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casualties for both the Allied and Japanese people would have totaled more than 32 million people.

Lewis reaches the right conclusion, but he does so by repeating—and in many cases excessively quoting—experts who have already reached this conclusion. His extensive reliance on Richard B. Frank's *Downfall: The End of the Imperial Japanese Empire* (1999), John Toland's *The Rising Sun: The Decline and Fall of the Japanese Empire, 1936–1945* (1970), Edwin P. Hoyt's *Japan's War: The Great Pacific Conflict* (1986), Stephen Harper's *Miracle of Deliverance: The Case for the Bombing of Hiroshima and Nagasaki* (1985), and others make it difficult to discern if he has added any new information. Indeed, the bibliography is almost devoid of primary sources. Additionally, Lewis uses Gar Alperovitz as a straw man to attack specious arguments for not using the atomic bomb, which is all too easy to do. On a positive note, he extensively cites the *US Strategic Bombing Survey* and correctly identifies errors within the survey.

The book badly needs additional editing. A good editor could have helped Lewis avoid careless mistakes such as typos, culturally incorrect spellings, incorrect rank or position descriptions, purple prose such as “to say that time was of the essence would be the understatement of the 20th century,” and glitches such as five separate footnotes in one sentence (199).

In addition, Lewis's careless writing led him to make some egregious factual errors. There are many examples, but chapter 18 provides two errors on successive pages. On page 296 Lewis identifies Charles Sweeney as the pilot of the *Enola Gay* (Sweeney flew *Bock's Car* over Nagasaki), and on page 297 he features a globe showing atomic tests around the world. The caption, and Lewis's apparent intention, indicates tests in the United States, but the photograph features Asia. Last, his tendency toward repetition led him to repeat an entire block quote from chapter 2 in chapter 17.

A work of this kind calls for a certain amount of conjecture about what might have happened had the invasion taken place, but Lewis's speculation steered him to hyperbole. For instance, he alleges the American public would have been so outraged if the United States had decided not to use the bomb that “armed insurrection would have been a very real possibility” (250). He also argues President Harry S. Truman had no choice but to use the bomb because “he would have been deposed from office by public revolt or military coup, and a more co-operative leader installed” (250).

While Lewis uses some sources well, he fails to understand the background of some of the authors. Key examples include Paul Fussell, a US Army infantry officer, and William Manchester, a US Marine, whose memoirs and recollections he cites extensively. He treats their first-person accounts respectfully, but seems not to understand they both survived the war and became widely

respected historians. Manchester's experiences as a Marine rifleman are evocative, but Lewis adds little to what Manchester published himself. One of Manchester's best known works is the biography *American Caesar: Douglas MacArthur 1880–1964* (1978), which Lewis could have profitably used to explore the issues of war termination and the pending invasion from the point of view of the General of the Army who commanded the Southwest Pacific Theater. In conclusion, *Atomic Salvation* would be twice as good if it were half as long—and if it added new facts to an already well-documented argument.

The American War in Afghanistan: A History

By Carter Malkasian

Reviewed by Dr. John Nagl, visiting professor, national security studies,
US Army War College

Few Americans not of Afghan blood understand the United States' involvement in Afghanistan better than Carter Malkasian, who led the Garmser district support team for nearly two years during the Obama administration. From that experience, Malkasian wrote *War Comes to Garmser* (2013), a small classic of counterinsurgency literature that led Marine General Joseph Dunford Jr., then commanding the effort in Afghanistan, to take Malkasian as his political adviser. Malkasian stayed on as the special assistant for strategy during Dunford's service as chairman of the Joint Chiefs of Staff, continuing to focus on the war in Afghanistan, and has now written—what is likely to be for many years to come—the definitive work on the American war in Afghanistan.

Malkasian's analysis begins with America's significant involvement in supporting resistance fighters to the Soviet invasion of Afghanistan in 1979. Assisted by the Americans, the Afghan mujahideen demonstrated the fighting qualities that earned Afghanistan the moniker "the graveyard of empires" and defeated the Soviet Union. Included among the mujahideen supporters was a Saudi named Osama bin Laden.

After the Soviet withdrawal, the United States displayed little interest in Afghanistan for a decade. Afghanistan's descent into chaos was snapped partially into order when the Taliban imposed a strict version of sharia law on the troubled country. The Taliban also provided a home base for bin Laden from which he planned and executed the attacks of September 11, 2001. They refused

to hand him over to the United States for justice, resulting in an American invasion that turned into the country's longest war—bin Laden's plan executed almost to perfection, although he did not live to see its final chapter.

Malkasian explores the war in exacting detail, focusing on south and east Afghanistan and the two principal antagonists: the Americans and the Taliban. He covers the initial US invasion, which led to the collapse of the Taliban regime in December 2001, and the critical failure to engage the Taliban in the government that emerged afterward, which he calls a “narrow and inflexible approach [that] contravened diplomatic wisdom to bring adversaries into a . . . political settlement” (76). It proved the first of many missed opportunities. Bin Laden slipped across the border into Pakistan, where he would remain in hiding—but continue to exercise leadership of al-Qaeda—for the next decade.

Pashtun tribal leader Hamid Karzai became the interim—and later the elected—president of Afghanistan and a small force of approximately 8,000 troops from the United States and 5,000 from allied nations, mostly NATO, began building a new Afghanistan that would not again serve as a safe haven for terrorists. American attention turned to Saddam Hussein's Iraq, which had played no role in the attacks of September 11 but nonetheless became the next target in President George W. Bush's War on Terrorism. As an insurgency exploded in Iraq, the Taliban took advantage of the lack of American attention and gained strength in Afghanistan. President Barack Obama saw no alternative but to surge tens of thousands of troops to fight against the Taliban insurgency. However, he announced a withdrawal date that reassured the Taliban they could wait the Americans out, leading many to remark, “Americans have the watches, but the Taliban have the time to wait” (various). Vice President Joseph Biden argued against the surge of troops into Afghanistan, recommending a smaller US troop commitment to conduct counterterrorism and train Afghan security forces, but was overruled.

President Donald Trump believed the war in Afghanistan was not in America's interest and repeatedly threatened to withdraw all US troops; his commitment to ending the war led to a negotiated agreement with the Taliban that this withdrawal would be accomplished by May 1, 2021. By then, however, Biden was president; he delayed the withdrawal date first to September 11 and then to August 31, 2021, continuing to commit to that date even as a resurgent Taliban seized power over Kabul on August 15, 2021. A US and international airlift evacuated Americans and many Afghans who had assisted the United States in its longest war outside of the country. After an absence of two decades, Taliban rule returned to Afghanistan.

Malkasian spreads the blame for America's failures in Afghanistan widely, noting the Russian, Iranian, and Pakistani support for the Taliban, as well as

American impatience, wavering commitment, and failure to understand the Afghan people. Most of all, however, he pays tribute to the Taliban, who “stood for what it meant to be Afghan” because they “embraced rule by Islam and resistance to occupation, values that ran thick in Afghan history and defined an Afghan’s worth” (454). An Afghan government supported by an outside power could not inspire the same degree of cohesion and devotion fostered by the Taliban.

The final reckoning on this fifth war in Afghanistan remains to be calculated. Nearly 2,500 US troops were killed and more than 20,000 wounded; while Afghan casualties are unknowable, the total probably exceeds half a million. Al-Qaeda was dealt a heavy blow, but the Islamic State took on its mantle of jihad and remains a strong presence in post-America Afghanistan. An Afghan people who have experienced democracy and freedom face an uncertain and deeply troubling future. Their eagerness to leave Afghanistan during the troubled final weeks of August suggests the suffering of this unfortunate country will continue for decades to come.

While the American people broadly support the end of the mission in Afghanistan, if not the manner in which it was conducted, there is still no guarantee American involvement is truly over, just as there was no guarantee when the Soviet Union withdrew in ignominy three decades ago. To be ready for that eventuality—and to build a force that is truly capable across the entire spectrum of conflict—military professionals can find no better preparation than a thorough contemplation of Malkasian’s *The American War in Afghanistan*.

Strangling the Axis: The Fight for Control of the Mediterranean during the Second World War

By Richard Hammond

Reviewed by Dr. James D. Scudieri, senior research historian,
US Army Heritage and Education Center

In *Strangling the Axis: The Fight for Control of the Mediterranean during the Second World War*, Richard Hammond takes a wider view of the war on Axis commercial shipping in the Mediterranean during the Second World War. He starts with a very effective introduction, a mere 10 pages, that outlines the following eight chapters. Chapter 1 summarizes prewar strategy and plans, while chapters 2 through 8 are chronological, in increments of five to seven months, starting in June 1940 and ending in May 1943. The conclusion integrates the introduction with the narrative chapters.

The central theme of the book is the lack of a holistic historical accounting of the effects of the Allied war on Axis shipping beyond noting impacts on the land war in North Africa (4, 6). Previous histories have highlighted the impacts of the anti-shipping war on the North African land war, but inadequately. Hammond concludes the increasing efficacy of British anti-shipping operations, attacking not only traditional sea lanes but also coastal shipping, exercised a deadly impact on Axis maritime strength. What the British lacked in capacity—described in detail—they compensated for with their de facto forward positioning for most of the Desert War. Hammond believes the historiography—with its excessive emphasis on the land motor transport—has failed to acknowledge this impact (142).

Hammond's coverage is sweeping and comprehensive. He presents his evidence by building a solid foundation in the relevant Italian and German documents, besides the Allied sources and the historiography. His wider war goes beyond the swirling armor-centric actions in the Western Desert campaign, and analyzes operations throughout the Mediterranean and Aegean regions. Each chapter is well organized, integrating maritime operations with land operations in considerable but concise detail. Hard statistics document Axis sustainment requirements, shipping losses by cause, and supply tonnages lost and delivered. Readers can follow developments in the air, on land, and on

the sea as independent missions became more joint. In a sense, Hammond's commitment to a more holistic analysis provides much in terms of the current joint functions.

His analysis of British efforts includes land-based airpower, naval aviation (both carrier-borne and shore-based), submarines, and surface warships. Interestingly, British political and diplomatic concerns on rules of engagement early in the war limited military options, for example unrestricted maritime warfare, with some lasting through early 1942 (28–30). Worse, British submarines were low-end boats technologically, and they had relatively poor-quality torpedoes and insufficient stocks of the latest designs (46, 71).

Hammond devotes a lot of attention to the fielding of more effective aircraft types, covering other enablers and joint techniques on the opposing sides. For example, he discusses the advance of Allied and Axis signals intelligence, the British introduction of air-to-surface vessel radar, more effective Italian anti-submarine warfare skills, and British use of operational research, such as systems analysis. He also showcases the evolution of command-and-control structures. Unsurprisingly, Malta retains its historical significance.

Sheer attrition cost the Axis not only tons of supplies lost at sea, but also numerous hulls. These shipping losses themselves became a prohibitive cost. New Axis construction and even Vichy acquisitions could not replace the attrition. Hammond states outright Axis shipping losses became precarious starting in September 1942 and precipitated a broader Mediterranean collapse around October 1942 (10, 127, 166). By May 1943, the Axis could not conduct a Tunisian “Dunkirk.” The stubborn Axis defense and successful evacuation of Sicily clouded their dire strategic situation. Abandonment of Corsica, Sardinia, and some Aegean possessions presaged a broader Mediterranean collapse due to their isolation (169–72, 200–3).

Hammond's articulation commendably avoids hyperbole. He admits when the anti-shipping war contributed little to the land war. One example is the initial British offensive against the Italians in North Africa in 1940 and another is the Allied Operation Husky on Sicily (49–50, 191–92).

This review offers one caveat. While Hammond has balanced his narrative with the related land operations admirably, he is perhaps too accepting of the typical criticism of British Army equipment, especially tanks, compared with their German counterparts in 1941 through early 1942. The first tank battles in the Western Desert underlined deficient British combined arms, rather than inferior equipment.

Strangling the Axis raises numerous issues related to security today. The Allied war on Axis shipping in the Mediterranean took place in three domains across the

length and breadth of a sea line of communications. Current developments in great-power rivalry and preparations for large-scale combat operations suggest several potential variations. Maritime power still moves the bulk of physical goods among nations. Future conflict in five domains could commence hostilities well before traditional warfare, for example cyber and space interference with shipping lanes. If traditional warfare breaks out, what vulnerabilities would beckon, both along the sea lanes and to anti-access and area-denial actions at ports of departure and arrival? How should Army multi-domain operations and Joint all-domain command-and-control concepts evolve and prepare?

Loss and Redemption at St. Vith: The 7th Armored Division in the Battle of the Bulge

By Gregory Fontenot

Reviewed by Gregory J. W. Urwin, professor of history, Temple University

Ever since S. L. A. Marshall published his flawed 1947 bombshell, *Men against Fire: The Problem of Battle Command*, historians have debated the effectiveness of the US Army in the European theater of operations during World War II. Eminent scholars such as Russell F. Weigley and Martin van Creveld have credited the ultimate American victory to greater numbers, superior artillery and air support, and more abundant resources. Meanwhile a younger generation of historians—including Ohio State University alumni Michael D. Doubler, Russell A. Hart, and Peter R. Mansoor—have argued that while the more seasoned German *Landser* may have outclassed the American GIs in their initial encounters, the Americans learned from hard experience and eventually became a worthy opponent.

A former tank battalion commander and a distinguished veteran of Operation Desert Storm, Gregory Fontenot analyzes the trials and ultimate triumph of the 7th Armored Division from the perspective of a professional soldier. *Loss and Redemption at St. Vith* is a detailed operational history of the US 7th Armored Division during the Battle of the Bulge (December 16, 1944 to January 25, 1945). Drawing extensively on American and German archival materials, with interviews, and correspondence conducted with several veterans, Fontenot grounded his grassroots research on a thorough reading of earlier histories of the Ardennes Offensive, an approach that armed him with an obvious mastery of the subject.

Although Fontenot seems to have discovered his passion for researching military history at the Command and General Staff College at Fort Leavenworth, Kansas, his book complements the scholarship of the Ohio State University scholars and demonstrates the “underappreciated excellence of the US Army’s average units as compared to the 1944 edition of the German Army” (286). While apologists for the American soldier often highlight the performance of the 1st Infantry Division, the 82nd Airborne Division, the 4th Armored Division, and other elite formations, Fontenot reminds readers that “plain old vanilla draftee divisions” like the 7th Armored Division, the “Lucky Seventh,” bore the brunt of the fighting in the American advance across northwest Europe (285).

When three German armies containing 28 divisions launched Adolf Hitler’s Ardennes Offensive nine days before Christmas in 1944, the Lucky Seventh received orders to proceed to St. Vith. From their position along a strategic road and railroad junction, on what became the northern flank of the enemy penetration, the division denied the Germans the use of the road and rail networks that passed through St. Vith for six crucial days. By midnight on December 18, the Lucky Seventh linked up with the battered elements of other American divisions to cover 52 miles of front line. This tenaciously held, horseshoe-shaped line badly upset German timetables and helped thwart Hitler’s last desperate bid to change the course of the war.

Like other American armored divisions, the Lucky Seventh was a balanced combined-arms formation designed for offensive operations based on fire and movement. It served under the command of Brigadier General Robert W. Hasbrouck, an officer whose tank corps–cavalry school background disposed him to execute the Army’s armored doctrine faithfully. During the struggle for St. Vith, Hasbrouck preferred to conduct an active defense, issuing his subordinates mission-oriented orders and fighting his units as flexible task forces. Strong defensive positions, experienced and aggressive leaders, and a basic adherence to solid doctrine—enhanced by inspired displays of initiative—enabled the defenders of St. Vith to fend off eight German divisions until severe attrition and the weight of enemy numbers forced the surviving Americans to retreat across the Salm River.

In the following weeks, First Army restored the 7th Armored Division to fighting shape, which allowed the unit to join the counterattack on January 20, 1945. After three days of fierce fighting, the Americans retook the previously lost ground at St. Vith and blotted out any shame the division’s personnel felt over abandoning the town earlier in the campaign.

Fontenot claims the initiative exercised by junior American officers and private soldiers played a decisive role in shaping the outcome of the Battle of the Bulge.

He repeatedly stresses the importance of leadership in every situation and emphasizes that a unit's performance depends on the quality of its officers. Additionally, he also admits he considers Hasbrouck the book's central character, although Hasbrouck shares the stage with other American officers whose judgment and adaptability contributed to denying St. Vith to the *Wehrmacht* for nearly a week.

Loss and Redemption at St. Vith is a significant contribution to World War II historiography. It provides apologists with an additional case study to plead their cause and dissects one of the Army's biggest battles in terms that officers serving today can readily understand.

Between Five Eyes: 50 Years of Intelligence Sharing

By Anthony R. Wells

Reviewed by Andrew Ziebell, Army Reserve officer

In *Between Five Eyes: 50 Years of Intelligence Sharing*, Anthony R. Wells attempts to present both a personal story of a fascinating career and a comprehensive history of intelligence sharing. Wells, who began his intelligence analysis career in 1968, shares his deep understanding of the history of intelligence and the relationship between the “Five Eyes”: the United States, the United Kingdom, Canada, Australia, and New Zealand. Unfortunately, he loses the thread of his narrative quite often, and either the personal angle or the historical angle would have been better discussed alone.

The subtitle of the book refers to the period of time Wells served in—or on the periphery of—the intelligence community. He emphasizes the Five Eyes relationship as a truly special one, yet readers will find a wide range of historical background that falls well outside this scope and adds little to the narrative. Indeed, his description of his early activities with naval intelligence and his role in assessing the Soviet submarine threat conjures up images of Tom Clancy's *The Hunt for Red October* (1984).

While Wells' well-researched historical accounts are drawn from the most authoritative sources, his logic can be difficult to follow. Many chapters are repetitive and appear to have been written separately with little consideration for how they might fit together into a coherent story. In chapter 6, “Intelligence

Roles, Missions, and Operations, 1990–2018,” Wells strays far afield into the history of Bletchley Park during World War II. He details the reading of Soviet messages in the post-war era and the failure to foresee the Chinese intervention in Korea and the Soviet occupation of Prague in 1968. Within the same chapter, readers learn about the importance of signals intelligence—from the Arab-Israeli conflicts to the Falklands crisis to the Soviet invasion of Afghanistan. Overall, Wells delivers little information on intelligence roles, missions, and operations between 1990–2018 and frustratingly less background on his contributions.

Despite the book's title, Wells often refers to Canada, Australia, and New Zealand only in passing or as an afterthought rather than providing concrete examples of their contributions to the Five Eyes. This oversight may be a product of his perspective from the positions he held in the United States and the United Kingdom rather than an intentional slight, but it does disservice to their significant involvement.

Perhaps the greatest shortfall of the book is the lack of coverage given to two of the most significant events of the early-twenty-first century. The shortest chapter of the book, “September 11, 2001 and Its Aftermath,” spends little time reflecting upon the intelligence failures that led to 9/11. Wells also sidesteps the recent debate about the decision by the UK government to accept the US assessment of Saddam Hussein's weapons of mass destruction program and his alleged support of terrorist networks, and he mentions the Chilcot Report only once. This omission is unfortunate as the 2016 report—published after a seven-year inquiry—condemned the British intelligence community for not challenging the US findings. Given the space devoted to so many topics far outside the purported scope of the book, this omission is an odd choice.

Despite these criticisms, Wells excels in synthesizing his knowledge and experience to assess current trends and offer predictions about the future. *Between Five Eyes*—in particular the final two chapters on emerging threats and the Five Eyes community in the twenty-first century—is a useful primer on the future of intelligence and the challenges the community faces. This is, after all, the purpose of intelligence gathering and analysis: to confirm what is known, fill in what is unknown, and posit possible outcomes. While Wells provides readers with much information, he unfortunately leaves them with more questions than answers.

STRATEGY

How ISIS Fights: Military Tactics in Iraq, Syria, Libya and Egypt

By Omar Ashour

Reviewed by Dr. Robert J. Bunker, director of research and analysis,
C/O Futures, LLC

Omar Ashour—an associate professor of security and military studies in the Doha Institute for Graduate Studies in Qatar and director of the Strategic Studies Unit in the Arab Centre for Research and Policy Studies—has written a superb and pithy book on Islamic State (IS, ISIS) warfighting approaches and the organization’s various iterations in Egypt, Iraq, Libya, and Syria.

Ashour first reviews the current literature on the Islamic State, focusing on explanations—including variables such as population, local support, and geography—related to “how and why weaker armed nonstate actors (ANSAs) beat or survive stronger armed state actors (ASAs)” (4). He then develops his central research emphasis and seeks to answer: “How did IS fight and why did it militarily endure and expand in Iraq, Syria, Libya and Egypt?” (15–16).

How ISIS Fights is divided into a foreword, acknowledgments, table and abbreviations listings, six chapters, a bibliography, and an index. The foreword—written by Larry P. Goodson, a professor at the US Army War College—highlights the groundbreaking findings and the extensive nature of the fieldwork, interviews, and review of primary sources (ISIS publications and videos) underpinning the research project. The chapters, whose titles betray the tactical subtleties of these specific operational environments, consist of: 1) an introduction which sets out the project methodology and parameters; 2) the Islamic State fighting style in Iraq (Fallujah, Mosul, and Ramadi); 3) the Islamic State fighting style in Syria (Raqqa Governorate); 4) the Islamic State fighting style in Libya (Derna and Sirte); 5) the Islamic State fighting style in Egypt (actually the Sinai); and 6) a conclusion regarding ISIS after territorial defeats and research findings.

The case studies follow a logical and consistent format: context, battlefront(s) focus, offensive and defensive descriptions, battlefront(s) analysis, tactics/innovations, and post-territorial operational environment futures. The notes are extensive and in English, although at times the original Arabic language sourcing is apparent. Ashour clearly understands the tactical and operational nuances of each case study and provides supporting tables to organize the material. Infantry weaponry and suicide-operations—especially vehicle-borne improvised explosive devices, given the ISIS deficiency in artillery—play heavily in the various tactical approaches, as does the increasing use of weaponized commercial drones. Ashour also discusses ISIS’s ability to shift rapidly between terrorist, insurgent, and conventional tactics and specific battlefront variations.

The only real criticism of the book is its highly analytical and dense writing—readers will need multiple reviews of the material to absorb its complexity. This complexity, however, is why the research effort is so highly valued for post-graduate study. A few new acronyms appear in the work: “iALLTR - Intelligence; absorb/recruit; loot; lead; transfer” and “SCCLC - Soften-creep; coalition-build; liquidate-consolidate (modus operandi)” along with a number of improvised explosive device variations such as “HBIEDs – house-borne improvised explosive devices” (vii, viii). Further, readers should remember Jihadi/Salafi terminology is crucially peppered throughout the book and should be embraced as a component of the ISIS reality construct to understand better the opposing force mindset.

Ashour’s research findings focus on understanding ISIS combat performance, utilizing “the four variables of combat effectiveness, military effectiveness, expansion, and endurance” as a conceptual lens (197). This focus highlights ISIS attributes such as fighter-types, unit-cohesion, autonomization, combat-multiculturalism, iALLTR, and SCCLC. A categorization of tactics highlighted in table 6.1 identifies the 16 types identified (206). While the micro-, meso-, and macro-level factors analysis is a bit complex, it pans out with the insights gained.

Of the many research findings provided, this one ultimately stands out: “The organisation rapidly adapted to changing environments and situations” (209). ISIS exhibits a strategic and operational flexibility setting it apart from other ANSAs. Ashour indicates the organizational decision-making process of ISIS—its feedback loop (akin to a tactical level observe, orient, decide, act loop)—allowed constant exploitation of the rapidly shifting battlefront environments where its forces were deployed. The stronger ASAs kept reacting to ISIS adaptations, and thus, constantly lost the operational initiative.

How ISIS Fights is a no-nonsense, compact book that effectively bridges the scholar-practitioner divide in defense and security studies by filling a critical gap in ISIS threat characterization—a global insurgent entity still very active throughout the Middle East, Africa, and other geographic regions. Students at the US Army Command and General Staff College, the US Army War College officer educational levels, and scholars and professionals deeply focused on counter-ISIS research and operations will find it useful. While great-power conflict has rapidly become the new *raison d'être* of US national military strategy, and rightly so, the ISIS hydra—while pretty much dismembered—still has some bite left in it.

Mars Adapting: Military Change during War

By Frank G. Hoffman

Reviewed by Colonel J. P. Clark, PhD, strategist, US Army

In *Mars Adapting*, Frank G. Hoffman—a research fellow at the National Defense University—turns his attention to the question of military adaptation in war. Hoffman was a contributing author to the 2006 Army-Marine Corps Field Manual (FM) 3-24, *Counterinsurgency* (2006), coined the term hybrid warfare, and served as a lead author for the 2018 *National Defense Strategy* (2018). Though there has been an increase in attention paid to military change, Hoffman is again blazing a path many others will soon follow. *Mars Adapting* deserves close scrutiny, and readers will be amply rewarded for doing so.

Hoffman's title indicates his principal focus: changes made in response to the surprises of war. Within that context, he considers everything from small local adjustments to significant institution-wide shifts. He examines organizational dynamics similarly. *Mars Adapting* explicitly seeks to fill the gap in bottom-up studies in the literature, but does not exclude the top-down. Some of the most interesting passages examine the complex interactions between local adaptations and those made from on high.

To illustrate the processes of military adaptation, Hoffman employs four case studies drawn from the modern US military experience: submarines in World War II, air power in the Korean War, the Army in Vietnam, and the Marine Corps in Iraq. Inevitably, every author employing case studies faces

difficult choices in establishing the boundaries from which the cases will be drawn and then in determining whether to examine more cases for diversity or fewer cases for greater depth and nuance. In both respects, Hoffman chose well.

Hoffman limits the case studies to the last century of US military experience. While this decision will undoubtedly draw criticism as too narrow a selection upon which to provide a universal guide to military adaptation, this pragmatic choice is beneficial for intended readers. All the case studies occurred within an organizational context similar enough to today's environment to be readily applicable. Cases from militaries with markedly different structures, practices, or cultures—or from the more distant US past when the organizational context was quite different—would have diminished the book's value. For instance, it would be anachronistic to fault the Civil War-era Army for not having an official center for lessons learned, but neither would a detailed accounting of the best practices of the Army of the Potomac be of direct value.

The use of fewer case studies to allow for a deeper examination sets *Mars Adapting* apart from similar books offering more but disappointingly cursory cases. Hoffman's chapter-length case studies, grounded in a mixture of secondary sources and archival research, are the right vehicle to grapple with the complexities of adaptation. Rather than simplistic good or bad examples of adaptation, each case study presents a mixture of results so readers gain a greater appreciation for the interlocking challenges of adaptation. For instance, in the chapter on the Army in Vietnam, Hoffman shows there was an evolution in tactics. That adaptation, however, occurred within a rigid conceptual framework set by Generals William Westmoreland and William DePuy, which locked the units of Military Assistance Command, Vietnam, into seeking ways to fight attritional battles more effectively on the enemy's terms. It was adaptation but not of the type that led down a productive strategic path. One critical insight from these cases is that adaptation takes time. Even the most successful instances required 18 to 24 months for full institutionalization.

Hoffman also presents a theoretical framework for military adaptation. Well versed in the relevant literature across multiple disciplines, he offers an excellent summation of the field in the first two chapters. The academic study of military change has been largely dominated by international relations theorists, most notably Barry Posen and Stephen Peter Rosen, and Hoffman gives that school of thought due attention. In developing his theory, he draws more heavily on the scholarship of military historians Theo Farrell and Williamson Murray and the field of organizational learning theory.

Mars Adapting makes two important theoretical contributions. The first contribution is a model for adaptation that accounts for both top-down and

bottom-up change in a process of inquire, interpret, investigate, integrate, and institutionalize. The second contribution is a list of attributes that define any organization's capacity to adapt: leadership, organizational culture, learning mechanisms, and dissemination mechanisms.

Hoffman's model and attributes will contribute to academic inquiries and help practitioners think systematically and rigorously about military adaptation. Both communities will benefit from the case studies, and the nuanced examples within the case studies will stimulate further thought. Perhaps inevitably, the model and attributes seem more descriptive than prescriptive. They provide a useful taxonomy for analysis but do not fully capture why certain leaders or organizations have the creative spark of successful adaptation while others fall short. This is consistent with one of Hoffman's major findings: adaptation is a difficult and complex process.

Hoffman fittingly concludes with a set of questions for further exploration, situating the book at the start of a long conversation rather than at its end. *Mars Adapting* is required reading for all scholars and practitioners interested in the questions it raises.

Military Coercion and US Foreign Policy: The Use of Force Short of War

Edited by Melanie W. Sisson, James A. Siebens, and Barry M. Blechman

Reviewed by Steven Metz, professor of national security and strategy,
US Army War College

Coercion is an important component of American statecraft and strategy—vital enough it is taught in the core course at the US Army War College. It first became the subject of rigorous social science analysis in Thomas C. Schelling's 1966 *Arms and Influence*. The central idea of coercion is adroit threats can, under certain conditions, allow states to attain strategic objectives without war. The key is to clarify expectations of the adversary and make them believe there will be painful consequences if they do not comply. Like deterrence, coercion requires capability, communication, and credibility. But, where deterrence is designed to forestall a potential adversary's action, coercion is active and immediate and is intended to make an adversary stop or change its current actions.

In 1978, Barry M. Blechman and Stephen S. Kaplan expanded Schelling's initial concept, publishing a series of case studies assessing when coercion works or does not work. Today's renewed great power competition increases the potential risks and costs of a major war—protracted conflict is always more likely among equal adversaries—and thus makes effective coercion even more important. For this reason, the editors and contributing authors of *Military Coercion and US Foreign Policy* have updated Blechman and Kaplan's efforts with recent case studies.

Military Coercion and US Foreign Policy has two purposes: “to provide information about the conditions under which particular types, sizes, and uses of the US military increased or decreased the likelihood of coercive success during the period 1991–2018” and “to determine how uses of the US military were, or were not, integrated with other tools of foreign policy in ways that enhanced or degraded US credibility” (10). As with its predecessors, *Military Coercion and US Foreign Policy* aims to harness social science and history to shape security policy, rather than solely to advance knowledge. The book is more a work of praxis than theory.

The first three chapters lay out the theoretical framework and are followed by five case studies covering Syria, Iraq and Iran, the Balkans, Russia, and China—all written by renowned experts. The conclusions are unsurprising to anyone who has thought seriously about the use of force in statecraft. For instance, what is threatened “can be determinative”; the clarity and specificity of threats and demands affect the outcome; deploying forces into a region from outside it often augments the credibility of a threat; and last, sanctions and military coercion do not “partner well,” since sanctions indicate a willingness to rely on methods of compliance other than force (164–65). For coercion to work, an adversary must feel certain military force will be used if they fail to comply. The intricate psychology of coercion creates challenges for the United States. As the editors of the book explain:

... messages are filtered through the target actor's strategic culture, domestic political culture, and by the temperament, experiences, and predispositions of its leadership. Messages thus inherently are vulnerable to misinterpretation, an eventuality made more likely by the inconsistencies in the statements made by policymakers, particularly when allies are involved, and by a lack of specificity in the nature of threats and demands levied (168).

Put differently, effective coercion requires clarity and consistency—two things US policy often lacks. The book argues coercion will be more important but also more difficult for the United States in an era of great-power competition.

The period covered in the book, 1991–2018, was one of clear US primacy. The failure of coercion—or its clumsy application—was not disastrous as the power disparity between the United States and its adversary amplified the credibility of threats. But with greater parity between the United States and its potential adversaries, particularly China, there will be less room for error and stricter requirements for a threat to be credible. Thus, the book’s editors conclude, “pursuit of US interest in the coming decades . . . will require a discipline in the planning and in the implementation of coercive strategy that the relatively permissive environment of the last 30 years most often did not” (176).

While the book’s contributors are all top-tier security experts, some chapters are better than others. Despite this discrepancy, the editors and authors succeeded in updating the original work of Schelling, Blechman, and Kaplan and provide an updated framework for analysis to inform policy in an increasingly dangerous time. Every senior military leader, foreign policymaker, and strategist should read this book.

TECHNOLOGY AND WAR

War at the Speed of Light: Directed-Energy Weapons and the Future of Twenty-First-Century Warfare

By Louis A. Del Monte

Reviewed by Jeffrey Caton, president, Kepler Strategies LLC

Louis A. Del Monte's *War at the Speed of Light: Directed-Energy Weapons and the Future of Twenty-First-Century Warfare* is a difficult book to categorize. Akin to the allure of a richly illustrated sideshow tent, the book's glossy cover and dire warnings of future disasters may entice prospective readers. But when the veil is drawn, the interior reveals contents incongruent with expectations. Del Monte claims over 30 years of experience with technology, and his recent books include *Genius Weapons* (2018) and *Nanoweapons* (2017), as well as a book on time travel. Curiously, a search of scholarly and professional publication databases reveals few earlier works.

In the introduction, Del Monte vows to describe “the ever-increasing and revolutionary role of directed-energy weapons in warfare” (1). He posits that “the nature of warfare is changing in three fundamental ways”: through artificial intelligence, directed-energy weapons, and reliance on electromagnetic energy. He promises that “this book delineates the threat that directed-energy weapons pose to disrupting the doctrine of mutually assured destruction (MAD)” (1). Del Monte touches on aspects of these topics, but never delves into a critical dialogue for any of them.

Del Monte divides the book into four major sections. The first section, “The Game of Cat and Mouse,” has three chapters designed to provide historical context. The contents are a hodgepodge of Cold War issues and warfare technology culminating in a review of the Third Offset Strategy (popularized by Secretary of Defense Chuck Hagel in 2014), as well as Del Monte’s construct of a “Fourth Offset” based on alliances, technology, and the threats of Russia and China (47). In sum, the chapter is an unnecessary prelude that forewarns readers of Del Monte’s op-ed approach to the book: personal opinions supported by a medley of facts that favor his narrative. Neither the exercise of critical thinking nor the addition of opposing dialogue are luxuries the author abides.

The second section, “Directed-Energy Weapons,” serves as the 85-page heart of the book, organized into four chapters on laser, microwave, electromagnetic pulse, and cyberspace weapons. The discussion on lasers is superficial and highlights only a few US systems currently under development. Absent is any mention of the successful missile engagements by the Missile Defense Agency’s Airborne Laser Test Bed in 2010. In fact, the entire Missile Defense Agency merits only a single sentence in the book. Instead, Del Monte rehashes a few Soviet-era laser devices (for example, the Sary Shagan facility) covered in better detail in the 1986 DoD publication *Soviet Military Power*.

The credibility of Del Monte’s arguments is often questionable. He summarily dismisses the technological advances of President Ronald Reagan’s Strategic Defense Initiative as irrelevant for directed-energy discussions. Also, Del Monte oversimplifies many complex matters into a *fait accompli*. For example, his reasoning why the United States should fear an EMP attack by rogue nations is the assertion: “President Richard Nixon conducted foreign policy by attempting to convince enemy leaders he was irrational and volatile . . . Nixon was acting. North Korea and Iran are not” (127). Simply put, there is too much tangential conjecture and too little thoughtful analysis.

With regard to cyberspace weapons, Del Monte harangues about Russian interference in US elections and offers a confusing perspective on electronic warfare. His only cyberspace-specific issue is a recap of the 2010 Stuxnet as “the first-ever cyber weapon” (135). Yet, in 2008, Operation Buckshot Yankee transformed how the Department of Defense defends in cyberspace. Also, the 2007 Russian cyberspace attacks on Estonia helped lay the foundation for NATO’s Cooperative Cyber Defence Centre of Excellence. Del Monte mentions neither.

The book’s third section, “Shields Up, Mr. Sulu,” is a thankfully short (23 pages) digression on directed-energy countermeasures and force fields that adds little to the book except more references to *Star Trek*. Del Monte offers only “bug bounties” as cyberspace countermeasures and an anemic four pages to present Army, Navy, and Air Force electronic warfare countermeasures (158). He also offers a lesson in plasma physics and a generic discussion of a Boeing patent for a plasma force-field concept.

The final section, “The Coming New Reality,” covers autonomous warfare, space warfare, and MAD. Within a jumbled three chapters, Del Monte doubles down on his rejection of particle-beam weapons as directed energy. While this is certainly convenient, he fails to recognize the Department of Defense and the rest of the world do consider particle-beam weapons as directed energy. In fact, strategic defense initiative programs successfully

demonstrated particle-beam technologies for directed-energy application in 1989. Del Monte also seems unaware that US space defenses routinely trained for the threat of Soviet anti-satellite weapons as well as high-altitude nuclear detonation and electronic attacks in the 1980s and 1990s.

Del Monte's final chapter, "Not Gambling with the Fate of Humanity," showcases his alarmist nature and shallow knowledge of national security doctrine. He undercuts his discussion of MAD by contorting its underlying premise to be "a belief that small nuclear states, having fewer nuclear weapons, can deter aggression by large nuclear nations" (214). The culminating revelations are Del Monte's whimsical guidelines to "eliminate nuclear weapons . . . use autonomous weapons only under human supervision . . . [and] arm autonomous weapons only with conventional warheads" (221).

War at the Speed of Light makes no serious contribution to the fields of the technical, military, and national security arts and sciences. Simply put, this is a book to avoid in lieu of much better subject material freely available to the public. To be fair, Del Monte has admirers. Indeed, his chapter endnotes appear to be extensive and are a redeeming quality of the tome. Unfortunately, the bounty of information contained in the credible sources is rarely shared with readers. While there is little doubt Del Monte would be a competent high-school physics teacher, the book clearly demonstrates that authoritative discussions of future warfare technology and national security are best left to others.

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Submissions to the US Army War College Press must address strategic issues regarding US defense policy or the theory and practice of land warfare while exhibiting the highest standards of research and scholarship. Actionable strategic, policy, or instructional recommendations must be included. For more information, visit <https://press.armywarcollege.edu>.

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2. Articles: 5,000 words or less.
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Soldiers from Charlie Company, 2-116th Cavalry Brigade Combat Team, Idaho Army National Guard, practice combined arms battalion, squad-level infantry movements on the Orchard Combat Training Center, January 20, 2019. The training combined dry fire rehearsal culminating in a live fire exercise.

Photo by Thomas Alvarez

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Chopper Pickup

An Alaska Army National Guard UH-60L Black Hawk helicopter lands to pick up Air Force special warfare airmen during small unit training at Joint Base Elmendorf-Richardson, Alaska, November 18, 2020. Conducted under physical and mental stress, small-unit training reinforces fundamental combat skills and fosters team cohesion.

Photo by Alejandro Pena, US Air Force

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