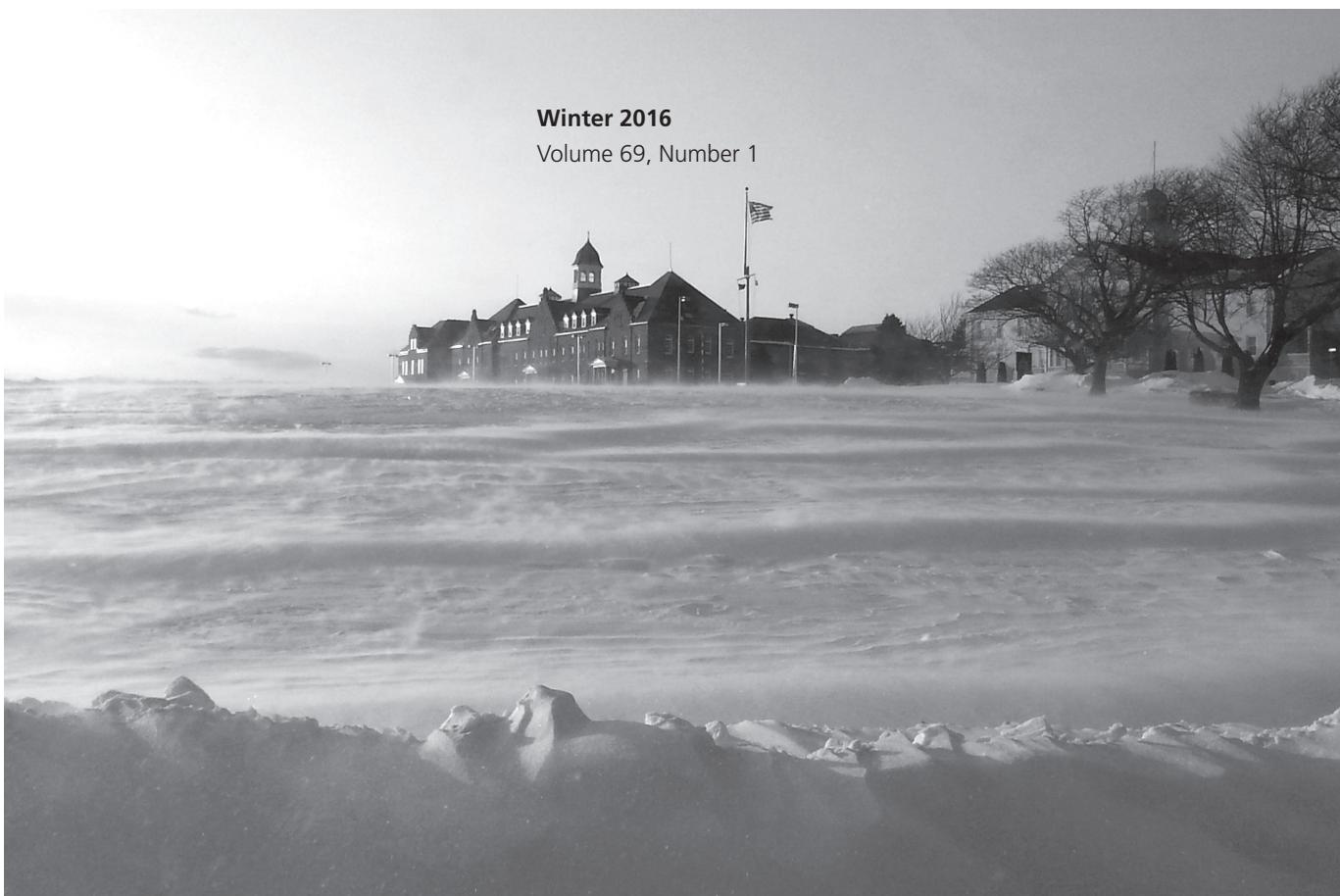


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FROM THE EDITORS

As the United States Navy reportedly prepares to mount a direct challenge to China's island-building project in the South China Sea, it is appropriate to focus renewed attention on this long-standing irritant in the relationship among China, its neighbors in the region, and the United States. In "America's Security Role in the South China Sea," Andrew S. Erickson, of the Naval War College's China Maritime Studies Institute, in a presentation originally offered as testimony before the Subcommittee on Asia and the Pacific of the House Foreign Affairs Committee in July of 2015, provides a succinct overview and analysis of the issue. He contends that "China's combination of resolve, ambiguity, activities, and deployments has corrosive implications for regional stability and international norms. That's why the United States now needs to adjust conceptual thinking and policy to stabilize the situation and balance against the prospect of negative Chinese behavior and influence."

It has long been assumed that the most likely trigger of a clash of arms between China and the United States is Taiwan. Given China's increasingly provocative behavior in the South China Sea (as well as in the East China Sea with respect to Japan), we should revisit this assumption. China's interest in these areas is not an existential one to the same extent as its well-advertised interest in Taiwan. But this makes it all the more important to develop a general understanding of the dynamics of Chinese crisis behavior across a variety of scenarios. In "The Evolution of Interstate Security Crisis-Management Theory and Practice in China," Alastair Iain Johnston sets out to do exactly that. In a pathbreaking analysis that encompasses a growing Chinese academic literature as well as the organization and organizational culture of China's military and security bureaucracies, Johnston shows that Chinese crisis-management thinking has been shaped to a surprising extent by the tradition of American, or more broadly Western, theorizing on crises originating in the Cold War. While emphasizing that this tradition is in many ways in tension with traditional Chinese attitudes toward war, he suggests that there may be an opening here for a productive dialogue between the two nations. Alastair Iain Johnston is the Governor James Albert Noe and Linda Noe Laine Professor of China in World Affairs at Harvard University.

The recently coined military term of art "antiaccess and area-denial" (A2/AD) appears in discussions primarily of China's ability to interpose significant naval

and air power between its shores and the American military presence in the Asia-Pacific region. Jonathan Altman, in “Russian A2/AD in the Eastern Mediterranean: A Growing Risk,” makes the novel and important argument that the new Russian presence in Syria and the eastern Mediterranean generally raises very similar issues for the United States and its allies in that region. What remains to be seen is whether Russia will be able to establish a permanent Syrian base that will inevitably change the strategic calculus—particularly for the United States, but also notably for Israel—in a dangerously volatile part of the world. Jonathan Altman is a program analyst with Systems Planning and Analysis, Inc.

Alfred Thayer Mahan taught that a robust commercial fleet is an inseparable component of maritime power. Today it is fashionable to argue or assume that the virtual disappearance of an American merchant fleet in recent times gives the lie to this idea. But does it? In “The U.S. Merchant Marine: Back to the Future?,” Christopher J. McMahon makes the case that the nation’s current reliance on foreign-flagged vessels poses an unacceptable danger, both economically and strategically. Rear Admiral McMahon, U.S. Maritime Service (Ret.), is currently Emory S. Land Chair of Merchant Marine Affairs at the Naval War College.

It is no secret that military organizations tend to dislike change. In “Systems of Denial: Strategic Resistance to Military Innovation,” Andrew Hill and Stephen Gerras provide an anatomy of this phenomenon in a larger context that includes innovation in business and in theories of science, and offer recommendations for overcoming it. At a time when truly paradigm-challenging thinking appears to be increasingly at risk, even in the academy (is global warming really “settled science?”), it is important to ponder these issues and their implications for professional military education. Andrew Hill and Stephen Gerras are professors in the Department of Command, Leadership, and Management of the Army War College.

If the American way of war is overwhelmingly focused on its kinetic dimension, the Chinese tend to take a more holistic approach, with special emphasis on psychological and legal instruments. But the use of law, both international and domestic, as an instrument of irregular or asymmetric warfare is not confined to nation-states. As Michael T. Palmer and J. Michael Johnson argue in “Undersea Lawfare: Can the U.S. Navy Fall Victim to This Asymmetric Warfare Threat?,” activist environmental organizations of varying motivations have proved capable of posing obstacles to American naval activities, especially active sonar testing for purposes of antisubmarine warfare, that often rise above the level of mere annoyance. They suggest it is time for the Navy to treat this “lawfare” with the seriousness it deserves. Captain Michael T. Palmer is a Navy Judge Advocate General Corps officer; Rear Admiral J. Michael Johnson (Ret.) is a former naval aviator.

Finally, we are pleased to note that this column once more has a plurality of authors, with the arrival in October 2015 of the new Managing Editor of the Naval War College Press, Robert Ayer. Rob is a retired U.S. Coast Guard captain and longtime military professor at the Coast Guard Academy, and brings superb editorial skills to a demanding assignment. We trust Rob's Newport experience will be a pleasant and productive one.

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Our editorial offices are now located in Sims Hall, in the Naval War College Coasters Harbor Island complex, on the third floor, west wing (rooms W334, 335, 309). For building-security reasons, it would be necessary to meet you at the main entrance and escort you to our suite—give us a call ahead of time (401-841-2236).

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Robert Ayer, Managing Editor

AMERICA'S SECURITY ROLE IN THE SOUTH CHINA SEA

Testimony by Andrew S. Erickson before a Hearing of the House Foreign Affairs Committee, Subcommittee on Asia and the Pacific, 23 July 2015.

Allow me to share my assessment of the current situation in the South China Sea, followed by my recommendations concerning how the U.S. government should understand the situation and how it may best work to address it.

Emerging Situation

A major Chinese narrative regarding the South China Sea is one of unreciprocated restraint. But Chinese leaders have clearly had an ambitious long-term vision of some sort, backed by years of efforts, themselves based on long-standing claims encapsulated in an ambiguous “nine-dash line” enclosing virtually all of the South China Sea.

Beijing's stance regarding South China Sea sovereignty issues is categorical and steadfast. In a position paper rejecting outright the Philippines' recent initiation of international arbitration regarding their bilateral dispute, China's Ministry of Foreign Affairs states,

China has indisputable sovereignty over the South China Sea Islands (the Dongsha [Pratas] Islands, Xisha [Paracel] Islands, the Zhongsha Islands [whose main features include Macclesfield Bank and Scarborough Shoal] and the Nansha [Spratly] Islands) and the adjacent waters.*

Despite all its rhetoric, actions, developmental efforts, and apparent preparations, however, China has repeatedly declined to disclose the precise basis for, the precise nature of, or even the precise geographical parameters of its South China Sea claims. As the U.S. Office of Naval Intelligence documents, China “has never published the coordinates of the “nine-dash line” that it draws around virtually the entire South China Sea—perilously close to the coasts of its neighbors, all of

* “Summary of the Position Paper of the Government of the People's Republic of China on the Matter of Jurisdiction in the South China Sea Arbitration Initiated by the Republic of the Philippines,” Ministry of Foreign Affairs of the People's Republic of China, 7 December 2014, available at www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1217149.shtml.

whom it has disputes with. It has not “declared what rights it purports to enjoy in this area.”* Beijing still has not specified whether or not it considers the South China Sea to constitute a “core interest.” Given China’s statements and actions to date, however, there is reason for concern that it is determined to maintain expansive claims based on unyielding invocation of the “nine-dash line.”

Island Seizure History. China’s military and paramilitary forces have a half-century-plus history of capturing islands and other features, many in the South China Sea. It appears that Beijing long harbored ambitions to seize significant numbers of South China Sea islands, and indeed took several occupied by Vietnam in 1974 and 1988 even though severely limited in sea and air power at that time. Such operations have not received sufficient analytical attention. In some respects, they may have been more complex than previously appreciated outside China. For example, maritime militia forces appear to have been employed in the 1974 Paracels conflict, the 2009 *Impeccable* incident, the 2012 Scarborough Shoal standoff, and the 2014 *Haiyang Shiyou 981* oil rig standoff.† It is important to note that in none of these cases—nor in recent Chinese cutting of the cables of Vietnamese oil and gas survey vessels or Chinese intimidation of Philippine forces at Second Thomas Shoal—did the United States intervene to stop Chinese actions.

Regarding the above-mentioned cases that occurred since the end of the Cold War, this is, in part, because Washington does not take a position on the relative validity of South China Sea countries’ sovereignty claims per se. Instead, what the United States opposes consistently is (1) the use of force, or the threat of force, to resolve such disputed claims; and (2) attempts to limit freedom of navigation or other vital international system-sustaining norms.‡

Industrial-Scale Island Construction. That brings us to recent events, which I believe have precipitated today’s hearing—and rightly so. In 2014, China greatly accelerated what had long been a very modest process of “island building,” developing land features in the Spratlys and Paracels on a scale and [with a] sophistication

* Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century* (Washington, D.C., 2015), p. 39, available at www.oni.navy.mil/.

† For Paracels, 万启光 [Wan Qiguang], 南海水产公司志 [A Record of South China Sea Fisheries Company] (Beijing: 海洋出版社 [Ocean Press], 1991), pp. 115–33. For Scarborough Shoal, Andrew S. Erickson and Conor M. Kennedy, “Tanmen Militia: China’s ‘Maritime Rights Protection’ Vanguard,” *The National Interest*, 6 May 2015, available at nationalinterest.org/. For *Haiyang Shiyou 981*, Andrew S. Erickson and Conor M. Kennedy, “Meet the Chinese Maritime Militia Waging a ‘People’s War at Sea,’” China Real Time Report (中国实时报) (blog), *Wall Street Journal*, 31 March 2015, blogs.wsj.com/.

‡ Daniel R. Russel, Assistant Secretary, Bureau of East Asian and Pacific Affairs, “Remarks at the Fifth Annual South China Sea Conference” (The Center for Strategic and International Studies, Washington, D.C., 21 July 2015), available at www.state.gov/.

that its neighbors simply cannot match, even collectively over time.* “Features” is the key word here, because many were previously small rocks or reefs not legally considered “islands.” Then China used some of the world’s largest dredgers to build up some of the most pristine coral reefs above water with thousands of tons of sand, coral cuttings, and concrete. U.S. Pacific Fleet commander Admiral Harry Harris aptly terms China’s creation a “Great Wall of Sand.” It has created over two thousand acres of “land” where none remained above South China Sea waters before.† But it’s what China is constructing atop this artificial edifice that most concerns its neighbors and the United States: militarily relevant facilities, including at least two runways capable of serving a wide range of military aircraft, that could allow Beijing to exert increasing influence over the South China Sea.

Beijing *itself* has stated officially that there will be military uses for the new “islands” it has raised from the sea. On 9 March 2015, China Foreign Ministry spokeswoman Hua Chunying stated that Spratly garrison “maintenance and construction work” was intended in part for “*better safeguarding territorial sovereignty and maritime rights and interests.*”‡ Hua elaborated that construction was designed in part to “*satisfy the necessary military defense needs.*” Chinese military sources employ similar wording.

The likely translation, in concrete terms:

- Better facilities for personnel stationed on the features
- Port facilities for logistics, maritime militia, coast guard, and navy ships
- A network of radars to enable monitoring of most of the South China Sea
- Air defense missiles
- Airstrips for civilian and military aircraft

Then-commander of the U.S. Pacific Command Admiral Samuel Locklear’s 15 April 2015 testimony before the House Armed Services Committee supports this assessment: In addition to basing Chinese coast guard ships to expand influence over a contested area, “expanded land features down there also could eventually lead to the deployment of things, such as long-range radars, military and advanced missile systems.” Locklear added: “It might be a platform for them, if

* For specific details, see “Island Tracker,” *Asia Maritime Transparency Initiative, Center for Strategic and International Studies*, amti.csis.org/.

† Subsequent to this testimony, Chinese reclamation has exceeded 2,900 acres. Department of Defense, *Asia-Pacific Maritime Security Strategy* (Arlington, Va.: 20 August 2015), p. 16, available at www.defense.gov/.

‡ As elsewhere in this testimony, italics are inserted by author for emphasis.

they ever wanted to establish an ADIZ [air defense identification zone] for them to be able to enforce that from.”

Airstrips . . . and ADIZ? For airstrips, after structural integrity, it’s length that matters most. There’s no need for a three-thousand-meter runway (as China now has on Woody Island and Fiery Cross Reef) to support evacuation of personnel for medical or weather emergencies via turboprop and other civilian aircraft.* Such a runway is only needed to support a full range of military options. Building a separate taxiway alongside, as China has already done at Fiery Cross Reef, suggests plans for high-tempo, high-sortie-rate military operations. No other South China Sea claimant enjoys even one runway of this caliber on any of the features that it occupies.

One logical application for China’s current activities: to support a South China Sea ADIZ. Beijing announced an ADIZ in the East China Sea in November 2013. Many nations—including the United States—have established such zones to track aircraft approaching their territorial airspace (out to twelve nautical miles from their coasts), particularly aircraft apparently seeking to enter that airspace.†

Radars on China-controlled features can form a network providing maritime/air domain awareness for the majority of the South China Sea. Fighter aircraft can allow China to intercept foreign aircraft it detects operating there, particularly those that do not announce their presence, or otherwise engage in behaviors that Beijing deems objectionable.

But while any coastal state is legally entitled to announce an ADIZ, the way in which China has done so in the East China Sea is worrisome. China threatens still-unspecified “defensive emergency measures” if foreign aircraft don’t comply with its orders—orders that an ADIZ does not give it license to issue or enforce physically. This suggests that China is reserving the “right” to treat *international* airspace beyond twelve nautical miles as “*territorial* airspace” in important respects.

China’s record on maritime sovereignty fuels this concern. The *vast* majority of nations agree that under international law a country with a coastline controls *only* economic resources in waters twelve to two hundred nautical miles out—and even less if facing a neighbor’s coast less than four hundred nautical miles away. But China additionally claims rights to control military activities in that exclusive economic zone, as well as, apparently, in the airspace above it.

* After this testimony was given, evidence emerged that China was constructing an airstrip on Subi Reef as well. Victor Robert Lee, “South China Sea: Satellite Imagery Makes Clear China’s Runway Work at Subi Reef,” *The Diplomat*, 8 September 2015.

† For a detailed explanation, see Andrew S. Erickson, “Lengthening Chinese Airstrips May Pave Way for South China Sea ADIZ,” *The National Interest*, 27 April 2015.

China currently lacks long-range capable antisubmarine warfare (ASW) assets akin to U.S. P-3 and P-8 aircraft. The more “islands” it builds, even if only with helicopter pads (as opposed to full runways), the more it can increase helicopter-based ASW coverage of the South China Sea. In this way, distribution of Chinese-held features could compensate for ASW helicopters’ “short legs.” China could thereby attempt to start to negate one of the last remaining major U.S. Navy advantages—submarines—and possibly pursue a bastion strategy for its nuclear-powered ballistic missile submarines (SSBNs) in the South China Sea.

Tipping Point. My Naval War College colleague, China Maritime Studies Institute (CMSI) director Peter Dutton, characterizes the aforementioned Chinese activities as a “tipping point,” meriting U.S. government response. “Militarization of the newly constructed islands,” which China appears determined to do, will, he argues cogently, alter strategic stability and the regional balance of power. “It will turn the South China Sea into a strategic strait under threat of land-based power.”* This is part of a “regional maritime strategy . . . to expand China’s interior to cover the maritime domain under an umbrella of continental control.”† Dutton contends, and I agree, that Beijing’s militarization of artificial islands

sets the clock back to a time when raw power was the basis for dispute resolution.

China’s power play, combined with its refusal to arbitrate, its aversion to multilateral negotiations, and its refusal to enter into bilateral negotiations on the basis of equality, undermines regional stability and weakens important global institutions.‡

As bad as things are already, they could get worse—particularly if American attention and resolve are in question. In attempting to prevent China from using military force to resolve island and maritime claims disputes in the South China Sea, the United States will increasingly face Beijing’s three-pronged trident designed precisely to preserve such a possibility. Maritime militia and coast guard forces will be forward deployed, possibly enveloping disputed features as part of a “Cabbage Strategy” that dares the U.S. military to use force against nonmilitary personnel.§ Such forces would be supported by a deterrent backstop that includes

* Peter A. Dutton, “Did the Game Just Change in the South China Sea? (And What Should the U.S. Do about It?),” A ChinaFile Conversation, 29 May 2015, www.chinafile.com/.

† Peter A. Dutton, Professor and Director, China Maritime Studies Institute, U.S. Naval War College, *Testimony before the House Foreign Affairs Committee, Hearing on China’s Maritime Disputes in the East and South China Seas*, 14 January 2014, 113th Cong., 2nd sess., available at docs.house.gov/.

‡ Dutton, “Did the Game Just Change in the South China Sea?”

§ For a Chinese description of such a concept, see “张召忠: 反制菲占岛 只需用‘包心菜’战略” [Zhang Zhaozhong: To Counter the Philippines’ Encroachment on Islands, [We] Need Simply to Employ the “Cabbage” Strategy], 环球网 [Global Network], <http://mil.huanqiu.com/observation/2013-05/3971149.html>.

both China's navy and its "anti-navy" of land-based antiaccess/area-denial (A2/AD), or "counterintervention,"* forces, collectively deploying the world's largest arsenal of ballistic and cruise missiles. In the region, only Vietnam also has a maritime militia, and the U.S. Coast Guard is not positioned to oppose China's. Meanwhile, China's coast guard is already larger than those of all its neighbors combined, and still growing rapidly.†

More broadly, worries about China's island construction, developing force posture in the South China Sea, and accompanying official statements exemplify broader foreign concern about China's rise—that as it becomes increasingly powerful, Beijing will

- Abandon previous restraint in word and deed
- Bully its smaller neighbors
- Implicitly or explicitly threaten the use of force to resolve disputes
- Attempt to change—or else run roughshod over—important international norms that preserve peace in Asia and underwrite the global system on which mutual prosperity depends

China's combination of resolve, ambiguity, activities, and deployments has corrosive implications for regional stability and international norms. That's why the United States now needs to adjust conceptual thinking and policy to stabilize the situation and balance against the prospect of negative Chinese behavior and influence.

The Need for a Paradigm Shift

As Peter Dutton has long emphasized, the way forward for the United States is clear: *Even as China advances, we cannot retreat.* Together with the East China Sea and the Yellow Sea, the South China Sea is a vital part of the global commons, on which the international system depends to operate effectively and equitably. Half of global commerce and 90 percent of regional energy imports transit the South China Sea alone. We cannot allow Beijing to carve out within these international waters and airspace a zone of exceptionalism in which its neighbors face bullying without recourse and vital global rules and norms are subordinated to its parochial priorities. This would set back severely what Beijing itself terms

* For an explanation of this concept published subsequent to the testimony itself, see Timothy R. Heath and Andrew S. Erickson, "Is China Pursuing Counter-intervention?," *Washington Quarterly* 38, no. 3 (Fall 2015).

† Andrew S. Erickson, "Did the Game Just Change in the South China Sea? (And What Should the U.S. Do about It?)," A ChinaFile Conversation, 29 May 2015, www.chinafile.com/.

“democracy” or “democratization in international relations.”* Instead, we must maintain the national will and force structure to continue to operate in, under, and over the South China, East China, and Yellow Seas and preserve them as peaceful parts of the global commons for all to use without fear.

Accepting Moderate Friction. Here, given China’s growing power and our own sustained power and resolve, we must accept a zone of bounded strategic friction and contestation. Such friction is manageable, and we must manage it. To do so effectively, we should develop the mind-set that we are in a great power relationship wherein we need to act to protect our vital interests and support the global system even as China is working to promote its own vital interests. It means preparing to live in the same strategic space together, with overlapping vital interests. This is the essence of great power relations, reflecting a reversion to historical norms after the brief and unsustainable unipolar moment is over—even as the United States remains strong as the world’s leading power, and the world remains far from being a true “multipolar” system.†

This robust but realistic approach includes accepting the fundamental reality that we will not roll back China’s existing occupation of islands and other features, just as we will not accept its rolling back its neighbors’ occupation of other islands and features. Most fundamentally, the United States must preserve peace and a stable status quo in a vital yet vulnerable region that remains haunted by history.

Embracing Competitive Coexistence. The paradigm we need to think about is a form of great power relations that I term “competitive coexistence.”‡ It is not a comprehensive rivalry, as between the United States and the Soviet Union in the Cold War. Hence, charges that it constitutes a “containment strategy” driven by a “Cold War mentality” would be inaccurate. Rather, it has specific competitive

* China’s paramount leader himself has declared that “we should work together to promote the democratization of international relations” (“我们应该共同推动国际关系民主化”). Xi Jinping, “习近平在和平共处五项原则发表60周年纪念大会上的讲话 (全文)” [Speech of Xi Jinping on the Five Principles of Peaceful Coexistence at the 60th Anniversary Commemoration (Full Text)], Ministry of Foreign Affairs of the People’s Republic of China, 28 June 2014, http://news.xinhuanet.com/politics/2014-06/28/c_1111364206.htm. See also “Full Text: China’s Peaceful Development Road,” *People’s Daily*, 22 December 2005, http://english.peopledaily.com.cn/200512/22/eng20051222_230059.html.

† Thomas J. Christensen, “The U.S. Alliance System and the Lack of True Multipolarity,” in *The China Challenge: Shaping the Choices of a Rising Power* (New York: W. W. Norton, 2015), pp. 49–52. See also Thomas J. Christensen, “China’s Military Might: The Good News,” *Japan Times*, 8 June 2015; Thomas J. Christensen, “Managing Disputes with China,” *Japan Times*, 9 June 2015.

‡ Andrew S. Erickson, “Assessing the New U.S. Maritime Strategy: A Window into Chinese Thinking,” *Naval War College Review* 61, no. 4 (Autumn 2008), pp. 35–71.

aspects that we should not exacerbate gratuitously, yet must not shy away from. China's current leadership is clearly comfortable with a certain level of friction and tension. Given the current unfortunate circumstances, for the foreseeable future we too must accept—and make clear that we are comfortable with—a certain level of friction and tension.

The above paradigm has important implications for both U.S. rhetoric and policy. First, American officials must recognize what their Chinese counterparts have long understood: words matter. The United States must not appear to embrace Chinese policy concepts or formulations that make us appear to fear tension, or to be willing to yield to Beijing's principled policy positions in order to mitigate it. Such optics would only encourage Chinese testing and assertiveness vis-à-vis Washington and its regional allies. Accordingly, two particularly problematic formulations favored by Beijing (and their variants) must be banished from the lexicon of American official discourse:

1. "The Thucydides trap"
2. "New-type great-power relations"

Avoiding Thucydides Claptrap. As invoked by none other than Xi Jinping himself to pressure U.S. counterparts, as well as by influential Chinese public intellectuals to call for U.S. concessions, the idea of the imperative to avoid a "Thucydides trap" represents a misapplication of history.* It falsely implies that only by taking drastic measures can the United States and China avoid previous patterns of ruinous conflict between an established power and a rising power. The product of a time that human progress over the past century has finally rendered obsolete, Thucydides offers a cynical, outdated interpretation that has no place in American values, or the world that the United States seeks to promote: "The strong do what they can, while the weak suffer what they must." I'm confident that's not the kind of world we're here to promote today.

Nor *should* we. As Thomas Christensen argues persuasively in his new book *The China Challenge*—already recognized as one of the leading works on U.S.-China relations—the evolution of nuclear weapons, international institutions, globalization, financial markets, and transnational production chains have made the world a very different place than it was just over a century ago in 1914 when the Great War erupted.† Washington and Beijing certainly face friction,

* For Xi Jinping: "Remarks by President Obama and President Xi Jinping of the People's Republic of China after Bilateral Meeting" (White House, Washington, D.C., 8 June 2013), available at whitehouse.gov/. For Chinese public intellectuals: Shi Yinhong, "An Analysis of the 'New-Type of Major-Country Relationship,'" *China-US Focus*, 3 April 2014, chinausfocus.com/.

† Thomas J. Christensen, "This Time Should Be Different: China's Rise in a Globalized World," in *The China Challenge*, pp. 37–62.

tensions, and even the possibility of future crises of some severity, but significant shared interests—economic and otherwise—as well as collective reliance on a dynamic international system, together with mutual deterrence, will enable them to avoid war. Both sides are restrained by these strong positive and negative incentives; it is not necessary for Washington to shoulder the burden of restraint alone. Instead, raising false hopes in Beijing only to have them dashed disappointingly is significantly more dangerous than being clear and firm from the start. U.S. policy makers must thus consistently avoid embracing flawed historical analogies that encourage unrealistic expectations on Beijing's part. Such dangerous “claptrap” must be relegated to the dustbin of history, where it truly belongs.

To set the right tone and expectations while safeguarding U.S. interests, the Chinese policy bumper sticker that flows from falling for the “Thucydides trap” must likewise be rejected. As originated and promoted by Beijing, the concept of “new-type great-power relations” is invoked to imply that Washington must yield to China's principled “core interests” (including, apparently, in the South China Sea) while not committing Beijing to corresponding accommodation in return.* As one Japanese contact asked me pointedly, “Why would you choose to wrestle in China's own sumo ring?”

Why indeed? Instead, the United States should proactively and consistently promote its own policy formulations. Robert Zoellick's “responsible stakeholder” concept is an excellent example, and it was a serious mistake for the Obama administration to cede the field in this competition of ideas. To the extent that Beijing opposes the idea of responsibilities being thrust upon it, I propose that “strategic stakeholder” might be a better phrase. In any case, each side is free to employ its own concepts and rhetoric. But, at a minimum, the policy formulations that we ourselves embrace should at least meet the standard of the Hippocratic oath of international relations: “first, do no harm.” That typically means using our own wording unless there is a compelling reason to do otherwise.

Specific Policy Recommendations

As for substantive efforts, we must develop and maintain a force structure and set of supporting policies and partnerships geared to ensuring access despite Chinese development of counterintervention capabilities. Even maintaining mutual deterrence vis-à-vis China could be good enough for the United States—Washington's key objective is to prevent the use, or threat, of force to resolve regional disputes. But allowing even the perception that such ability to “hold the

* This has been more recently termed “new-type major-country relations,” but without any apparent change in its underlying meaning. For detailed analysis, see Andrew S. Erickson and Adam P. Liff, “Not-So-Empty Talk: The Danger of China's ‘New Type of Great-Power Relations’ Slogan,” *Foreign Affairs*, 9 October 2014.

ring” has eroded could gravely threaten the stability of a vibrant yet vulnerable region. Key questions for consideration thus include:

- What systems do we need to develop and acquire?
- How should we engage our military and other government forces to act?
- What risks must we accept?
- What should we ask of our allies and security partners in support?

In addition to cooperation and capacity building with regional allies and partners, the United States must maintain robust deterrence that paces China’s growing arsenal of counterintervention weapons. Here, unfortunately, Washington continues to suffer lingering effects from the mishandling of the Iraq War and its aftermath. Among other problems, a decade of land wars with unclear, unrealistic objectives diverted attention and resources from capabilities to preserve the ability of the U.S. military to operate in maritime East Asia even while threatened by Chinese systems. Washington is finally devoting increased attention to several types of weapons with particular potential to demonstrate that counterintervention won’t work, but existing efforts may still be too slow and limited to arrest an emerging gap between U.S. goals and capabilities.

As I have testified elsewhere, at least some of the key military hardware requirements to meet these objectives are straightforward and affordable.* We must make particular effort to preserve the significant U.S. advantage in undersea warfare by emphasizing nuclear-powered attack submarines (SSNs) and offensive naval mines. We must also take a page from China’s counterintervention playbook and prioritize antiship cruise missiles (ASCMs). We are already facing a significant reduction in SSN numbers because of earlier decisions that are resulting in rapid retirement of *Los Angeles*-class SSNs without corresponding replacements to maintain force levels. That’s why I have consistently emphasized the following bottom line: if we’re not building at least two *Virginia*-class SSNs per year, we’re not being serious—and regional allies, partners, and China will see that clearly. Three a year would be even better, and I believe we can and should get there soon.

Closing a True Missile Gap. We should never have allowed American ASCM development to languish so terribly. While I recognize and commend the important efforts under way now, I remain concerned and believe we need to move further, faster. Here’s why.

* Andrew S. Erickson, “China’s Naval Modernization: Implications and Recommendations,” *Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces*, 11 December 2013, 113th Cong., 1st sess., available at docs.house.gov/.

Regardless of China's precise economic trajectory, China's navy—together with its other military and paramilitary forces—will be increasingly capable of contesting U.S. sea control within growing range rings extending beyond Beijing's unresolved island and maritime claims in the South China, East China, and Yellow Seas. Experts at the annual conference we convened at CMSI earlier this year generally agreed that by 2020, China is on course to deploy greater quantities of missiles with greater ranges than those systems that could be employed by the U.S. Navy against them. China is on track to have quantitative parity or better in surface-to-air missiles (SAMs) and ASCMs, parity in missile launch cells, and quantitative inferiority only in multimission land-attack cruise missiles (LACMs). Land-based missiles with potential to threaten U.S. ships and ports they deploy from include the world's only antiship ballistic missiles (ASBMs)*—the numbers of which constitute only a tiny fraction of the world's foremost substrategic ballistic missile force deployed by China. Let me be clear: *Unless this gap can be filled credibly, China is poised to "outsticker" the U.S. Navy by 2020 by deploying greater quantities of missiles with greater ranges than those of the U.S. ship-based systems able to defend against them.*†

Retention of U.S. Navy superiority hinges on next-generation long-range ASCMs (the long-range antiship missile [LRASM] and the vertical launch system-compatible naval strike missile [NSM] variant). These remain "paper missiles," as yet un-fielded on U.S. Navy surface combatants. The NSM represents the extraordinary case of the United States looking to Norway (in partnership with Raytheon) to supply a key weapons system that American industry itself should have been able to produce on favorable terms years ago. Additionally, new U.S. ASCMs may be unable to target effectively under contested A2/AD conditions. Failing to fill this gap would further imperil U.S. ability to generate and maintain sea control in the western Pacific.

Let me underscore once again that the United States and China *can* avoid war. I'm confident that we *will* avoid fighting each other. Rather, this is about maintaining robust deterrence in peacetime and in any crises that might erupt. Specifically, we must deter Beijing from attempting to resolve island or maritime claims disputes with the use of force, or even the threat of force. The aforementioned [U.S.] weapons systems, effectively deployed and combined with a broader

* Subsequent to this testimony, China revealed two different ASBMs at a 3 September military parade: the long-anticipated DF-21D and a variant of the newer DF-26. See Andrew S. Erickson, "Showtime: China Reveals Two 'Carrier-Killer' Missiles," *The National Interest*, 3 September 2015.

† Andrew S. Erickson, personal summary of discussion at "China's Naval Shipbuilding: Progress and Challenges," China Maritime Studies Institute conference, U.S. Naval War College, Newport, R.I., 19–20 May 2015, available at andrewerickson.com/.

strategy, can repeatedly convince China's leaders that they will not succeed in their objective if they attempt to use military force to seize additional features and waters around them, or to prevent U.S. forces from operating in international waters and airspace nearby.

Maintaining Freedom of Navigation. Proper efforts in the abovementioned areas will thereby support access to pursue our vital interests, which include unfettered access to all areas of operation allowed by international law. This access is not only in the form of freedom of navigation per se, but also to support a much broader set of fundamentals: access for American military force, economic power, political persuasion, and influence over regional events. All require the support of military power that underwrites American influence on behalf of the global system.

Supporting freedom of navigation, in turn, requires a broad array of measures, coordinated through a whole-of-government approach. Freedom of navigation operations should be pursued proportionally, in accordance with international law, whereby islands and rocks are accorded territorial waters and airspace out to twelve nautical miles, and reefs (features naturally underwater at high tide) are accorded zero nautical miles. Such legal distinctions are important, and we should operate accordingly.

Additionally, we need to reinforce the global institutions that the Law of the Sea [Convention] was designed to create and support. This entails underwriting with our power and example peaceful dispute resolution based on international law and international institutions. Among these, the United States must ratify the UN Convention on the Law of the Sea (UNCLOS). As Peter Dutton testified before the House Foreign Affairs Committee in 2014,

American policy makers must realize that the contest for East Asia is one of both power and law. . . . Acceding to [UNCLOS] and once again exercising direct leadership over the development of its rules and norms is the first and most critical step. . . . My sense is that East Asian states, indeed many states around the world, are desperate for active American leadership over the norms and laws that govern legitimate international action.*

Once again, I agree fundamentally with my colleague.

Regaining Legal Leadership. The United States should ratify UNCLOS because doing so would further support the rules- and norms-based international system that Washington is rightly trying to foster—in part as a means to ensure the

* Peter A. Dutton, Professor and Director, China Maritime Studies Institute, U.S. Naval War College, *Testimony before the House Foreign Affairs Committee, Hearing on China's Maritime Disputes in the East and South China Seas*, 14 January 2014, 113th Cong., 2nd sess., available at docs.house.gov/.

following: (1) that neither force, nor even the threat of force, will be employed to resolve island and maritime claims disputes in a dynamic but increasingly tense region, and (2) that such destabilizing approaches will not be encouraged anywhere else. Ratifying UNCLOS would also eliminate a perennial source of deflection by China and understandable concern on the part of U.S. allies and partners. While the U.S. stance with regard to international maritime law is obviously far more sophisticated than this—including nuanced positions regarding the far-reaching applicability of customary international law—ratifying UNCLOS would nevertheless eliminate a perception that Washington is advocating “Do as I say, not as I do.” The application of maritime law in practice is shaped over time, and China is already benefiting from U.S. vulnerability in this area—vulnerability caused by not joining 166 other states [sic] and the European Union in becoming a party to UNCLOS.

I can attest from personal experience to the extent to which China has cultivated a new generation of sharp, persistent maritime legal specialists who are active in the international arena. I believe that their concerted efforts can make a difference over time, a difference that would undermine the governance of the global maritime commons to our collective detriment.

But don’t just take it from me. What’s far more important is that UNCLOS ratification is supported by

1. The current President, Secretary of State, Secretary of Defense, Chairman of the Joint Chiefs of Staff, and the heads of the U.S. maritime services: Navy, Marine Corps, and Coast Guard
2. All their living predecessors, from Republican and Democratic administrations alike*

On how many issues does one witness this sort of unanimity across parties, agencies, and time? These people are true experts, not just on theory, but on how things play out in policy practice. There is a compelling reason for their unanimity: U.S. UNCLOS ratification is a great idea whose time has more than come.†

Worth Defending: Not Thucydides’s World, but the Twenty-First-Century Global System. Safeguarding the long-term future of the global maritime commons,

* See, for example, Adm. Bob Papp, Commandant of the U.S. Coast Guard, “Benefits of Joining the Law of the Sea Convention,” *The Hill*, 19 April 2012; and John B. Bellinger III, Adjunct Senior Fellow for International and National Security Law, “Should the United States Ratify the UN Law of the Sea?,” *Council on Foreign Relations*, 11 November 2014, www.cfr.org/.

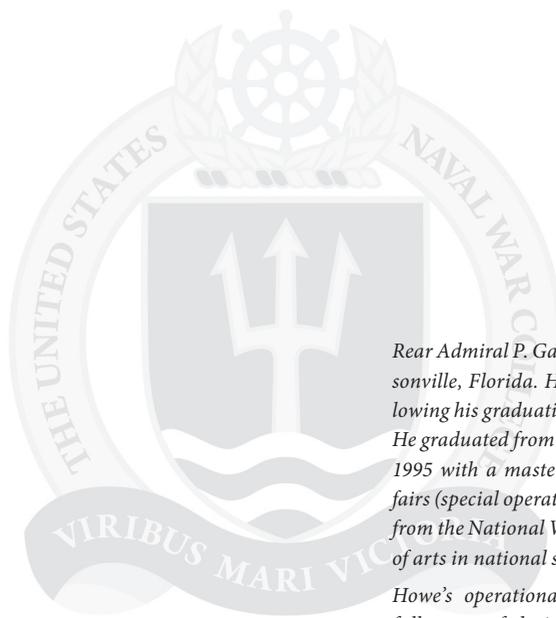
† For related policy recommendations offered subsequent to this testimony, see Andrew S. Erickson, “New U.S. Security Strategy Doesn’t Go Far Enough on South China Sea,” *China Real Time Report* (中国实时报) (blog), *Wall Street Journal*, 24 August 2015, blogs.wsj.com/.

including the freedom of the vital international sea-lanes of the South China Sea and the airspace above them, demands nothing less than the measures I have advocated here. We will have to accept some moderate friction, but we can *manage* that—all while cooperating with China and other nations in areas of mutual interest. We live in a far better world today than Thucydides could ever have dreamed of. Let's be sure to keep it that way in all respects, for everyone, regardless of their relative power.

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The opinions expressed herein are the personal views of the author and are not meant to represent the official views of the Department of the Navy or any other agency of the federal government. The text differs in minor ways from that published online by the House Foreign Affairs Committee.



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Howe's operational assignments have included a full range of duties in the Naval Special Warfare and Joint Special Operations communities. He commanded Naval Special Warfare Unit 3 in Bahrain; Naval Special Warfare Group 3 in San Diego, California; and Special Operations Command, Pacific in Hawaii. His service overseas includes multiple deployments to the western Pacific and Southwest Asia, and participation in Operations EARNEST WILL, PROVIDE PROMISE, ENDURING FREEDOM, and IRAQI FREEDOM.

Howe is the fifty-fifth President of the U.S. Naval War College.

His key joint and staff assignments include current operations officer at Special Operations Command, Pacific; Chief Staff Officer, Naval Special Warfare Development Group; assistant chief of staff for Operations, Plans and Policy at Naval Special Warfare Command; director of Legislative Affairs for U.S. Special Operations Command; and Assistant Commanding Officer, Joint Special Operations Command.

PRESIDENT'S FORUM



THROUGHOUT ITS HISTORY, the U.S. Naval War College has continually adapted its educational and research programs to accommodate the shifting international security environment in order to educate the Navy's future leaders effectively. From the introduction of war gaming into the curriculum in the 1880s to the "Turner Revolution" in the mid-1970s, the College has responded to the needs of the service by updating its curriculum and teaching methods and by establishing programs and activities designed not only to keep pace with change but to anticipate it.

Recognizing the need to strengthen the Navy's ability to craft maritime strategy and think both deeply and broadly about warfighting issues, then-Chief of Naval Operations (CNO) Admiral Thomas B. Hayward announced the establishment of the Center for Naval Warfare Studies (CNWS) in 1981. The first head of CNWS, former Navy Under Secretary Dr. Robert J. Murray, saw the Center as a "place where the Navy is asking itself, 'How do the forces fit together: first at the tactical level, then at the theater level, and then worldwide?'"

Mindful of this strong foundation, and recognizing that the Navy was at a critical nexus—operating in a dynamic and increasingly unstable international security environment at a time of unrelenting budgetary pressure—the Center recently conducted a ten-month internal review to examine its current effectiveness in meeting its mandate, and to identify ways in which it could better help the Navy adapt to the challenges it is facing now and will face in the future.

The review was initiated in the fall of 2014. Professor Tom Culora, the acting dean, formed an interdepartmental team of faculty members to examine four key criteria: the degree of success the Center was achieving in its core missions, the effectiveness of both internal and external communications, the efficiency of

the current organizational structure, and the adequacy of resources committed to naval issues. The study team developed a research design that, while primarily qualitative in its approach, applied mixed methods for data collection and analysis that included conducting over eighty internal and external interviews and collecting scores of formal documents and directives.

The result of this effort was a comprehensive review that generated more than seventy relevant findings and made twenty direct recommendations that provided a foundation for the Center's dean and department chairs to examine as they chart the course for the organization over the next several years. A systematic review and discussion within this group of leaders revealed three enduring issues they believe need to be considered for the Center to remain relevant and effective. First, they identified the need for effective and active communication both within the Center and, equally important, across the greater naval enterprise to leverage the full potential of the institution to influence and inform key decisions about naval strategy and operations. Second, the Center needs to maintain a balance perpetually between its research activities and gaming conducted in response to outside tasking / demand signals, on the one hand, and activities designed to generate independent analysis and creative thinking, on the other hand. By doing so, the Center not only responds to the immediate needs of the Navy but also has the "bandwidth" to recognize emerging trends and issues, so as to enable it to conduct research and inquiry to *anticipate* challenges, not just *respond* to them. Lastly, there was recognition of the natural competition between the need to both address near-term challenges and pressing situations that demand attention *now* and devote time to anticipating, identifying, and exploring *future* operational and strategic questions.

Beyond these three enduring issues, the study team's other findings represented both challenges and opportunities for the Center. Among the key opportunities—in the form of strengths—identified were the strong, diverse, and widely respected faculty; the reputation of the Center for academic and research integrity; and the recognition of the value of independent and anticipatory research. But ongoing challenges were identified as well, including the difficulty of fully and effectively communicating the research and gaming activities of the Center to outside organizations and stakeholders; the absence of research unity and a long-term strategy; the lack of coverage in several key issue areas, both regional and functional; and the ever-present challenge of sustaining research quality that is attendant on research organizations such as CNWS. Underpinning all of these challenges was a growing concern that the critical support that enables this rich source of research and analysis was under both bureaucratic and budgetary pressure that could threaten the effectiveness, efficiency, quality, and

quantity of the research produced by the faculty, not only in CNWS but across the College at large.

In the months following the delivery of the study results to College leadership nearly all of the recommendations have been adopted in one form or another, including some additional recommendations from the department chairs. Several responses to key recommendations were initiated immediately, including the following:

- The development and publication of an annual research plan, coupled with a yearbook to provide a compendium of all the work done by the Center in the preceding year. At the time of this writing, the first edition of this document is scheduled for release in the fall of 2015. We anticipate that future plans/ yearbooks will be developed earlier in the calendar year via a process that will more fully consult and consider the needs of key stakeholders and staffs.
- Improvement of both internal and external communication that goes beyond the publication of the research plan and yearbook, to include internal and external presentations of research findings; a CNWS “road show” that may become part of a larger College-wide outreach program and periodic workshops; and other events at the College designed to deliver research results and obtain feedback on that work more effectively.
- Establishment of a Center-wide research consultation and assessment process among all faculty members that creates a dialogue and encourages critical examination of key research efforts as a means of assessing the overall fidelity and quality of the research produced and released by the Center.
- A structural change within the Center that merges the Strategic Research Department with the Warfare Analysis and Research Department to improve collaboration and improve efficiency. This merger enables a talented group of topically diverse faculty members who apply a variety of research methodologies and approaches to collaborate more effectively on a wide range of research projects and initiatives. This improves the potential to combine divergent research into a holistic view of the strategic and operational issues facing the fleet across the spectrum of conflict in both the near and far terms.
- Lastly, based on the internal review and the subsequent development of the research plan, efforts are under way to close recognized gaps in the research coverage by internally adjusting the focus of a few faculty members on the basis of their demonstrated expertise, while adding new faculty members targeted to fill these gaps when enabled by faculty retirements and departures. Developing the intellectual capital of the Center is perhaps the key

mechanism for ensuring a vibrant, agile, and forward-leaning organization. The follow-on to these faculty additions and adjustments is the development of a more comprehensive human resources plan that will outline priorities and identify opportunities with the most valuable asset the Center possesses—its people.

These recommendations, along with several others, are being implemented by the College to sustain and improve support to CNO, the OPNAV staff, and the fleet; to provide a measure of “headroom” to enable organizational agility; and to respond to demand signals as received on future needs of the fleet.

History shows that good organizations respond to challenges and opportunities; but the best organizations anticipate and actively adapt to change in their environments and to the shifting uncertainty of an unstable world. The initial motivation behind CNWS’s internal review was to provide a deeper understanding of the organization and the environment so that thoughtful and targeted adaptive change could be initiated to improve the organization—and this goal was accomplished. As the dean of CNWS stated at the review’s conclusion, “At the end of the day, the internal review provided the leadership, faculty, and staff within CNWS with a vehicle to begin a sustained and open dialogue about what, how, and why we do what we do.” I am convinced that this dialogue will continue in the coming months and years as the Center for Naval Warfare Studies shapes its research, gaming, and analytical work—ultimately contributing to the mission of the Naval War College as it provides support to CNO and our Navy at large.



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THE EVOLUTION OF INTERSTATE SECURITY CRISIS-MANAGEMENT THEORY AND PRACTICE IN CHINA

Alastair Iain Johnston

As the frequency and scope of China's paramilitary and military presence activities in the East and South China Seas have increased in the last few years, officials and analysts inside and outside China have worried more and more about the potential for military crises erupting between China and other actors. Given the perceived high stakes of many of these potential disputes—they touch on sovereignty, territorial integrity, national dignity, and development resources—some observers are concerned about the risks of escalation to military conflict, whether deliberate or accidental.¹ Adding to the worries is uncertainty about China's commitment to crisis management and escalation control.²

The purpose of this article is to help fill the gap in knowledge about Chinese crisis-management theory and practice. Focusing mainly on the evolution of thinking in China about international security crisis management over the past ten to fifteen years, the study begins with a short introductory description of Chinese theorizing about the definitions and characteristics of interstate crisis, about crisis-management principles, and about how crisis management fits into the evolving military operations of the People's Liberation Army (PLA). It then analyzes factors in Chinese crisis-management theory and practice that might be in some tension with these principles. Finally it examines some of the problems that Chinese crisis-management experts themselves have identified in setting up a leaner, more efficient, and better coordinated military crisis-management decision-making system.

The bottom line is that China has developed a relatively large body of research on crisis management, work that more or less endorses the principles

and practices developed by many American experts during the Cold War. Indeed, much of the Chinese research explicitly draws on the substantial body of American literature on crisis management. Chinese experts have also developed concepts (e.g., nonwar military actions) and scenarios (e.g., border instability) that explicitly articulate roles for the PLA in crisis management distinct from its traditional war-fighting role. But there is also considerable tension between these principles and practices on the one hand and certain military operational concepts in China on the other. In addition certain biases—hypernationalism and visions of Chinese exceptionalism—are in tension with crisis-management principles as well. Finally, crisis-management decision-making institutions, mechanisms, and procedures are still relatively underdeveloped.

CRISIS-MANAGEMENT THEORY DEVELOPMENT

It is common in the United States, and to some degree in China, to hear commentators pronounce that in the Chinese language “crisis” (*weiji*) means “danger” plus “opportunity.”³ According to some Western and Chinese crisis-management experts, this is an inaccurate or facile way of understanding the term. Rather, “crisis” comprises the characters for “danger” (*wei*) and for “decisive point/fulcrum [*ji*] between life and death.”⁴ Some believe it can also mean “danger” plus “turning point” (*zhuanji* or *zhuanzhe*), a sense in which some positive outcome is possible.⁵ Indeed, a seminal study of crisis management by the influential China Institutes of Contemporary International Relations (CICIR) notes that the EP-3 crisis in 2001 led the United States (and China) to improve Sino-U.S. relations.⁶

In contrast, much of the Chinese literature focuses on the negative nature of crises. One of the first Chinese works on crisis management, published in 1989, refers to a crisis as the intensification of contradictions between states that damages their normal relationship.⁷ It is a situation with some probability of escalation to armed conflict or war, and where there is only a short period in which to resolve the crisis. It is also common for Chinese sources to describe a crisis as being situated between war and peace.⁸ One source is explicit that there are three types of security situations: peace, crisis, and war.⁹ More recently, Yu Qiaohua, a PLA crisis-management specialist at the PLA National Defense University (NDU), citing Chinese dictionaries, concludes that a crisis is a “hidden/concealed disaster or danger, a moment of serious difficulty[,] . . . a dangerous situation or stage where there is a possibility of war or armed conflict between countries or political groups.”¹⁰ CICIR’s study calls a crisis a cut point in a line or trend of normalcy and notes that after a crisis the situation rarely returns to the status quo ante.¹¹ A widely cited NDU study argues that the resolution of a crisis means neither that complete cooperation has returned nor that the basic problem

behind the crisis is resolved.¹² In short, interstate-security crises occur between adversaries and enemies, not between friends.

Generally, Chinese crisis-management experts characterize crises much along the lines of standard American definitions. This should not be surprising, as much of the Chinese literature draws extensively on the U.S. literature.¹³ In the American academic literature Michael Brecher and Jonathan Wilkenfeld's definition of a crisis has been the most influential. They define it as a political-military conflict where decision makers perceive there to be a threat to important interests, where stakes are high, where there is a growing probability of armed conflict, and where there is perceived pressure to resolve a dispute before it escalates to war.

Chinese crisis-management experts have adopted this definition.¹⁴ According to the 2003 CICIR study, crises have three main characteristics: threats to important interests (*weixiexing*), high levels of uncertainty (*buquedingxing*), and a high sense of urgency (*jinpoxing*).¹⁵

According to a 2006 NDU study on crisis-management decision making, crises have five characteristics: they are threatening (*weixiexing*), sudden (*tufaxing*), and marked by a high sense of urgency (*jinpoxing*) and high levels of uncertainty (*buquedingxing*) but are controllable (*kekongxing*).¹⁶ A 2008 NDU study of military crises argues that crises have four characteristics: the possibility of escalation to war (*zhanzheng weixianxing*), seriousness of threat to interests and costliness of escalation (*weixie yanzhongxing*), uncertainty about the direction of the crisis (*fazhan buquedingxing*), and urgency in handling it (*chuzhi jinpoxing*).¹⁷ And the 2015 edition of the NDU's *Science of Strategy* simply adopts Brecher and Wilkenfeld's definition of a crisis.¹⁸

In short, according to Chinese experts, crises are dangerous, given that escalation to war is a strong possibility, but they are controllable through the application of crisis-management principles and mechanisms, as will be discussed more fully below.¹⁹ As I will discuss later, the claim that crises reside between war and peace creates a potential set of missions for military power that are distinct from major interstate war. The problem is that, according to many Chinese military analysts, the PLA is still unprepared in terms of command, operations, and training to engage fully in crisis-management missions.

Types of Crises

Yu Qiaohua identifies six types of military crises: those between great powers, those among alliance members or within political groupings, those between major and minor powers, those between states with traditional adversarial relations or rivalries, those within states between political groups, and those induced

by terrorism.²⁰ These types can be aggregated into traditional interstate crises, terrorism, and internal or domestic disorder (intrastate crises). Crises can be further categorized as those that lead to war (where one or more states provokes a crisis as an excuse for war), those that remain on the margins of war (where the threat or escalation to war is used for bargaining purposes to coerce the other side), accidental crises (where the crisis arises from unintended or chance events and actions), and quasi-crises (where sudden events in the context of somewhat conflictual relations precipitate a crisis but the probability of war is low, such as the EP-3 incident in 2001).²¹

As for the causes of crises, aside from the occasional nod to historical materialism (e.g., the claim that interstate crises are mainly a function of clashing economic interests, U.S. hegemonic pursuit of energy being a major source of these crises), Chinese crisis-management scholars identify a range of fairly specific factors and examples.²² These fall into a number of categories from territorial and resources conflicts (e.g., Diaoyudao, Dokdo, South China Sea issues, energy disputes) to imbalances in, and the spread of, new military capabilities (e.g., nuclear proliferation in Korea and Iran, cyber weapons);²³ the spillover of domestic conflicts into other countries (e.g., ethnic separatism, terrorism, DPRK* collapse, diversionary crises); unexpected military accidents and collisions; and the rise of new powers with more points of potential conflict with other states.²⁴

Crisis Management: Definitions and Principles

China's crisis-management specialists commonly define crisis management as involving the use of diplomatic, military, and economic means to establish an advantageous position from which to reduce tension, minimize losses, and get the adversary to compromise, all the while avoiding loss of control or escalation to war.²⁵ Crisis-management policy, therefore, entails "a series of measures to prevent and control the occurrence and development of crises."²⁶ These can include, among others, building confidence and trust, increasing transparency, strengthening contacts across militaries, prior notification of military activities, participation in multilateral security institutions, deterrence (and sanctions), summit meetings and regularized high-level mutual visits, hotlines, mechanisms for arms control and disarmament monitoring, and the use of informal high-level trusted emissaries.²⁷ A recent NDU study argues that direct communications between top leaders are more effective in restraining crisis escalation than sole reliance on military deterrence or economic sanctions.²⁸

Definitions and characterizations of international security and military crises in Chinese research draw heavily from American academic and government research. Senior Colonel Hu Ping of the PLA General Staff Department (GSD)

* Democratic People's Republic of Korea; that is, North Korea.

was a major figure in transmitting these ideas to the Chinese crisis-management community back in the early 1990s.²⁹ In 2003, CICIR's breakthrough study on crisis management praised the rigor and sophistication of "Western" crisis-management research and the role it plays in influencing foreign policy.³⁰ Based on my own interviews with Chinese crisis-management specialists and from a look at the references used in PRC scholarship, it is also clear that a 2006 book coedited by Michael Swaine and Zhang Tuosheng on U.S.-Chinese crises—a product of a collaborative project on crisis management between the Car-

According to many Chinese military analysts, the PLA is still unprepared in terms of command, operations, and training to engage fully in crisis-management missions.

negie Endowment for International Peace (CEIP) and the China Foundation for International and Strategic Studies (CFISS)—has had an important impact on crisis-

management research in China.³¹ The project has contributed to discussions inside China on the question of intracrisis signaling and it has contributed to a more critical self-evaluation of China's own crisis-management practice. Most important, however, it has helped propagate crisis-management principles inside the Chinese national-security bureaucracies.³²

In particular, from this exposure to American crisis-management theory Chinese crisis-management theorists have converged on a set of principles for guiding crisis-management practice. The first analyst to develop such a list was Hu Ping, whose 1992 study, sponsored by CFISS, listed a range of dos and don'ts, mostly derived from American crisis-management literature.³³ Indeed, at the time, some in the PLA criticized his work as too "Western," as having insufficient "China" content. Judging from the frequency of its citation, however, this initial assessment evidently has not stopped scholars from relying on Hu's work. Later, in 2003, the CICIR crisis-management group distilled Hu's list down to six principles: "seek peaceful resolution" and don't think of punishing the other side; "seek limited and realistic goals"; exercise restraint over one's behavior; maintain communications with the other side; handle issues separately (e.g., don't engage in issue linkage); and avoid zero-sum approaches to crisis.³⁴

The CEIP-CFISS project mentioned above appears to have been important in codifying crisis-management principles in China. The project participants worked out a list of principles derived mainly from Hu's 1993 book. By 2007, after some discussion, these principles had been accepted by both CEIP and CFISS:³⁵

- Communicate with the adversary clearly and constantly and be specific about what is being demanded.
- Articulate limited goals; be prepared to drop unlimited ones.

- Maintain military flexibility, respond symmetrically in your options; don't excessively pressure the other side, and don't take the use of force lightly.
- Avoid excessively ideological positions; don't threaten the other side's basic values, and don't moralize conflicts of interest.
- Exercise self-restraint, including in response to provocative actions by the other side.
- Do not issue ultimatums; ensure that the adversary can back down in a face-saving manner.
- Divide large issues into smaller, manageable parts.
- Anticipate unintended consequences of particular moves.

These principles, or variants of them, are routinely cited in the Chinese crisis-management literature.³⁶

Two additional principles are sometimes found in the Chinese literature. First, the geographical scope of a crisis should be limited to the immediate parties to prevent third-party intervention or internationalization.³⁷ Internationalization is generally considered a problem, because it can constrain freedom of action by bringing in the interests of third parties.³⁸ That said, Chinese specialists have argued that China can play and has played a constructive third-party role in crisis management (for instance, vis-à-vis the DPRK).

Second, China should respect international law, as international norms can generally reduce uncertainty and thus reduce the volatility of crises.³⁹ Two NDU crisis-management specialists, however, raise the caveat that national interest trumps international law. The main reason, it seems, for using international law in a crisis is to mobilize international and domestic support for one's cause. The flip side is that egregious, blatant violations of international law in the name of national interest put a state in a passive position and isolate it, constraining its diplomatic and military options.⁴⁰ Most recently a PLA study of military operations in crises suggests that if in border disputes China's forces (maritime and air included) operate outside its boundaries, it will have to abide by international law, and the prior permission of highest-level decision makers will be required.⁴¹ Doing so, however, helps China gain the moral high ground.

Some of these principles are conditioned by the admonition that there are certain questions on which China cannot compromise or make concessions. NDU's Wang Yong lists these as issues related to national dignity, territorial integrity, or national unity.⁴² Indeed, he and a coauthor argue that once a crisis has evolved to a point where "core interests" are threatened, standard crisis-management principles no longer apply and one has instead to use resolute methods to counter the adversary. Those methods include military means if necessary, though

with restraint, such that the adversary's core interests are not threatened.⁴³ Yu Qiaohua, for his part, includes these three in his list but adds others: long-term national development, the stability of political power, and ethnic unity.⁴⁴ He adds elsewhere that "sovereignty is more important than everything."⁴⁵

In addition to the principles they now share with American crisis-management theoreticians, Chinese specialists point to some that they believe are uniquely rooted in Chinese historical experience. These are embodied in the phrase "just, advantageous, restrained" (*youli, youli, youjie*), an axiom often cited as a guiding principle in China's own approach to crisis management. Its meaning comes from its historical origins in the anti-Japanese war, when the Chinese Communist Party and the Kuomintang were fighting each other while at the same time trying to collaborate against Japan. "Just" refers to the principle of self-defensive actions (*ziwei*), that of not going on the offensive or attacking without provocation or reason. In other words, it means exercising restraint even in conflict situations but reserving the right to strike second, to retaliate. "Advantageous" refers to the principle of seeking victory—that is, being fully prepared for struggle, while avoiding unnecessary losses from pursuing overly ambitious goals. "Restrained" connotes self-control in operations—not pursuing an adversary to a total victory, refraining from escalation even after defeating an attack.⁴⁶

It is, of course, unclear to what extent this axiom actually constrains China's crisis-management behavior. One argument might be that, like the language of exceptionalism in the United States, the axiom is a self-justification of behavior that in fact violates its principles. Alternatively, it could have a domestic political purpose, that of justifying concessions (restraint) after a politically acceptable level of demands has been made (just, advantageous).

Another principle that Chinese experts claim to be particularly salient in Chinese thinking is the blending of crisis prevention and crisis management. Chinese ideas on crisis management often include more-general proposals about the need to promote economic development or political stabilization in failed states and regions, to build trust, etc., before focusing on specific crisis-management mechanisms. In my private conversations with them, some Chinese crisis-management specialists have stressed the role that track II (that is, unofficial) diplomacy could play in allowing all sides to gauge the stakes at hand and to enhance their determination to avoid confrontations. My Chinese interlocutors have not been confident that these kinds of measures would necessarily resolve major conflictual issues, such as those relating to Taiwan or the South China Sea, but they believe they could reduce the probability of confrontation.⁴⁷ Some have suggested that joint risk-reduction centers, joint crisis-analysis projects, or direct communications links between relevant military operations departments in China and other countries could also be useful in crisis prevention.

The Status of Crisis Management in PLA Military Operations

As they theorized about crises and crisis management in general, over the last ten years or so PLA experts have begun to think both more conceptually and more concretely about the role of military operations in international crises. Their research appears to be moving from exploring (and even mimicking, to some degree) American-based work to developing concepts of military operations and of signaling more tailored to Chinese conditions.

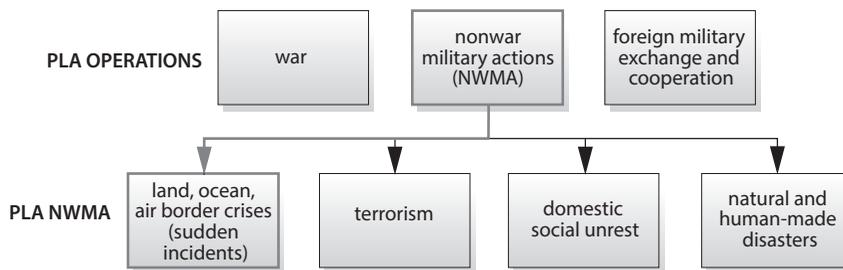
The first official reference to a special PLA role in military crises or “sudden incidents” (*tufa shijian*) came in the 2002 *Government Work Report* presented to the National People’s Congress in March of that year. In it Premier Zhu Rongji called for strengthening the PLA’s ability to fight self-defensive wars and deal with sudden incidents under high-technology conditions.⁴⁸ Two major real-world developments appear to have dovetailed during the years 2004–2009 to push forward this new focus on military crisis operations. One was a growing focus on domestic crisis management and on emergency-response laws, institutions, and operations in general. This impulse grew mainly from the severe acute respiratory syndrome (SARS) experience in 2003 but also from problems experienced in coordinating responses to natural disasters.⁴⁹ In 2004 and 2005, in a flurry of legislation and institution creation, offices in charge of crisis and emergency response were quickly set up at all levels of government. Some of this legislation specifically addressed the role of the PLA in domestic emergency responses of various types.⁵⁰ A second factor, one outside China, was the U.S. development of the concept of military operations other than war (MOOTW). It may have played a role in sharpening the PLA’s focus on organization and operations in external crises short of war.⁵¹

As a result of these developments, in 2006 new PLA headquarters regulations (*silingbu tiaoli*) were issued that for the first time identified the handling of sudden incidents as an important part of PLA operations and outlined the principles, basic procedures, and important points of attention in this type of mission.⁵² In the same year the top military decision-making body, the Central Military Commission (CMC), approved the *Overall Contingency Plans for the Military’s Handling of Sudden Incidents*.⁵³ This plan identified five types of such contingencies or events, the first being “military-conflict sudden events,” or military crises.⁵⁴ The 2008 *White Paper on National Defense* was the first to use the term “nonwar military actions” (NWMA), the Chinese term for MOOTW.⁵⁵

The NWMA concept allowed the PLA to place crisis-management operations into a three-category overall typology of military operations (see figure 1): war, nonwar military operations, and foreign-military cooperation.

Crisis management falls in the NWMA category. Within this category are four subtypes of crises, or sudden incidents, that could require the use of military force:⁵⁶

FIGURE 1
THE STATUS OF MILITARY CRISIS MANAGEMENT IN PLA NONWAR MILITARY ACTIONS



- Incidents involving challenges to China's control over its land, ocean, or air boundaries
- Incidents involving terrorist attacks
- Incidents involving domestic social unrest
- Incidents involving natural or human-made disasters.

According to Chinese experts, international security crisis management, as generally defined by both American and Chinese specialists alike, applies mainly to the first subtype—handling crises on China's land, sea, and air borders.⁵⁷ The PLA's role is also greatest in such crises. In the remaining three subtypes, in most cases, the lead in the use of force would be taken by the People's Armed Police or the Public Security Bureau. The PLA should, it is argued, play a role in these last three subtypes only when the crisis constitutes a serious threat to national security—the lives, property, or security of the people—and only when ordered to by the CMC.⁵⁸

With regard to incidents involving China's land, ocean, or air boundaries, PLA crisis-management experts have identified a range of scenarios for which they need to plan and exercise (and, as I examine later, the PLA appears to have developed contingency plans for some of these scenarios):⁵⁹

- Small-scale armed conflicts with other states over land-border disputes
- Small-scale armed conflicts over disputed ocean areas, over jurisdiction over shoals and reefs, and over the exploitation of resources in exclusive economic zones
- Small-scale military surveillance and harassment activities conducted by foreign militaries along land, ocean, and air frontiers
- Terrorist or violent attacks along land and ocean frontiers by foreign-supported separatist and terrorist organizations

- Limited sealing of the border to prevent internal conflicts in other countries from spilling over the border in the form, say, of refugee flows
- Mistaken incursions by foreign soldiers or personnel into land and ocean border areas under China's jurisdiction
- Accidental incidents that harm China's interests, flowing from exercises and military activities by foreign militaries along China's land, ocean, and air boundaries.

This effort to figure out where interstate military crisis management fits into the spectrum of military activity is, potentially, an important conceptual development. It explicitly differentiates between the traditional PLA mission of using force in wartime to annihilate the enemy, on the one hand, and NWMA, wherein military power would be guided by the principles of crisis management, on the other. While the distinction may be hard for militaries to maintain in practice, especially those not having specially trained forces for crises and emergency management, the making of this distinction by the PLA is, arguably, a step toward understanding that the use of force in crises has different purposes, different milestones, and different manifestations than it does in interstate war. PLA specialists, however, complain precisely of the military's difficulties in adjusting to crisis-management practices, wherein goals are much more limited than in wartime.⁶⁰

The Institutional Development of Crisis-Management Research

Stemming to some degree from the 1996 Taiwan crisis, the bombing in 1999 of the Chinese embassy in Belgrade, and the 2001 EP-3 incident, there has been a steady increase in Chinese scholarship on interstate crisis management. Much of this literature is still very self-critical with regard to the sophistication of crisis research. For instance, the authors of a recent volume on the military's handling of sudden events noted that crisis-management research and analysis tend to be done by nonmilitary institutions about nonmilitary crises (e.g., natural disasters, economic or social crises, etc.), while the PLA's study of, and training in, crisis management has tended to focus on counterterrorism, not on crises occurring around China's borders. The authors recommend, therefore, that the PLA set up its own crisis-management research institute.⁶¹ Some PLA critics suggest China's practical ability to anticipate crises is hampered by unsophisticated techniques of crisis early warning (e.g., the lack of databases and statistical skills).⁶²

The first sustained research project on interstate-security crisis management was started in the early 1990s by the China Foundation for International and Strategic Studies, a think tank connected to the GSD's intelligence department. As noted earlier, CFISS published one of the first major analyses of crisis management, by Hu Ping of the GSD, in 1993. Since then CFISS has become a major

player in the development of crisis-management concepts and their dissemination to the wider PLA and to the civilian foreign-policy community. It has collaborated with the U.S.-based CEIP on crisis-management discussions since the early 2000s.

A second important site of crisis-management research is the CICIR, an intelligence-analysis institute affiliated with the Ministry of State Security. In 2002 it set up a Crisis Management and Countermeasures Center. The idea for a crisis-management research capacity was first broached around 2000, and the EP-3 incident and 9/11 attacks in 2001 soon underscored the importance of such a center. Analysts from other research offices and centers at CICIR are allocated on a part-time basis to the center. A handful of analysts focus mostly on crisis management, including domestic disaster response; they mostly come from the American Studies Institute, the Information and Social Development Institute, and the Arms Control Institute.⁶³ Judging from citations, the center's important 2003 book on interstate crisis management has had a major impact on crisis-management research in China.

Another important institutional support for crisis-management research is the NDU's Crisis Management Center, set up in 2004. It is clear that much of the more authoritative open literature on crisis management comes from this center or its affiliated scholars. It has produced research on crisis-management theory, decision making, and early warning, among other topics.

Finally, the General Logistics Department (GLD) appears to be another important site for crisis-management theory development. Specialists associated with the GLD are writing about the operational details of command and control in crisis situations, in part because the GLD is responsible for timely responses to internal natural and man-made disasters, as well as pandemics and epidemics, by virtue of its control of the military medical system. In addition, traditional military crises require the GLD to ensure the rapid delivery of appropriate logistics support.

Chinese crisis-management theorists have adopted and developed principles that, if internalized by top leaders, should lead to restraint in interstate crises. Chinese writings suggest that crisis management requires empathy, clarity, and non-zero-sum perceptions of the issues at stake, especially in an era of nuclear weapons.⁶⁴ This view is quite close to the American literature on crisis management. Indeed, much of the Chinese approach appears to draw directly or indirectly from U.S. theory and practice. The authors of a recent NDU study were clear that proactive American research into crisis management and crisis prevention was "one important reason" for relatively successful U.S. handling of crises in the 1990s and after (such as the first Gulf war and Kosovo) and for its victories in

recent limited wars.⁶⁵ The authors suggested that the relative U.S. success had to do with adherence to the key principles of crisis management.⁶⁶

Despite the convergence in many crisis-management principles and the rather steady development of research capacity, some PLA experts complain that there is still insufficient emphasis on practical and implementable crisis-management mechanisms.⁶⁷ Moreover, these theorists recognize that crisis management requires the military to think differently about the use of the military instrument. They understand that the PLA needs to be able to operate at levels of violence below that for which it has organized and trained in the past. But there are some major ideological, political, and military operational obstacles to the application of crisis-management principles. I take these up in the next section.

PROBLEMS AND ISSUES IN CHINA'S CRISIS-MANAGEMENT PRACTICE

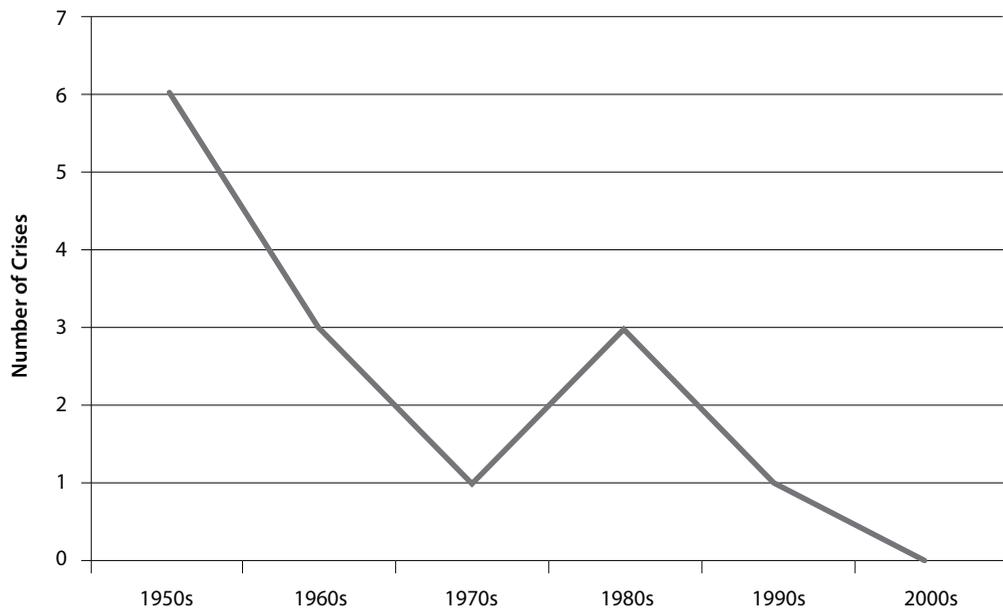
There is considerable tension between many of the concepts and principles in Chinese crisis-management thinking, on the one hand, and some of China's approaches to certain security problems, as well as certain military concepts and operational practice, on the other. Some of these tensions and contradictions are recognized as such by Chinese experts. Some are not. Many of them are not unique to China, of course.

Threats to Sovereignty and Territory

A central feature of China's crisis-management behavior is sensitivity to perceived threats to the nation's sovereignty and territory. Concretely, this means that Chinese leaders have been more risk acceptant, harder to deter, and more likely to escalate coercion on issues related to the defense of territory and external and internal sovereignty than on other "national interests." In crises involving these matters it may be harder for them to preserve a limited-stakes perspective or to accept mutual concessions. Indeed, since around 2004 territory and sovereignty questions have been labeled "core interests," analogous to what Americans might call "vital interests." Thus far the content of core interests has been relatively stable. They include PRC control over Xinjiang and Tibet and the prevention of a *de jure* independent Taiwan, as well as, more generally, the preservation of China's current political system, sovereignty, territorial integrity, and sustainable development.⁶⁸ For some experts, the frequency of crises will increase as Chinese power increases and the scope of the nation's interests expands.⁶⁹ Others recognize, however, that in multilateral nontraditional-security crises, China may have to downplay its emphasis on absolute sovereignty.⁷⁰

This determination to protect territory and sovereignty is neither new nor unique. It is, for one thing, evident in China's past crisis behavior. According to the International Crisis Behavior (ICB) data set, Chinese propensity to crisis

FIGURE 2
FREQUENCY OF CHINA'S FOREIGN POLICY CRISES, 1949–2007



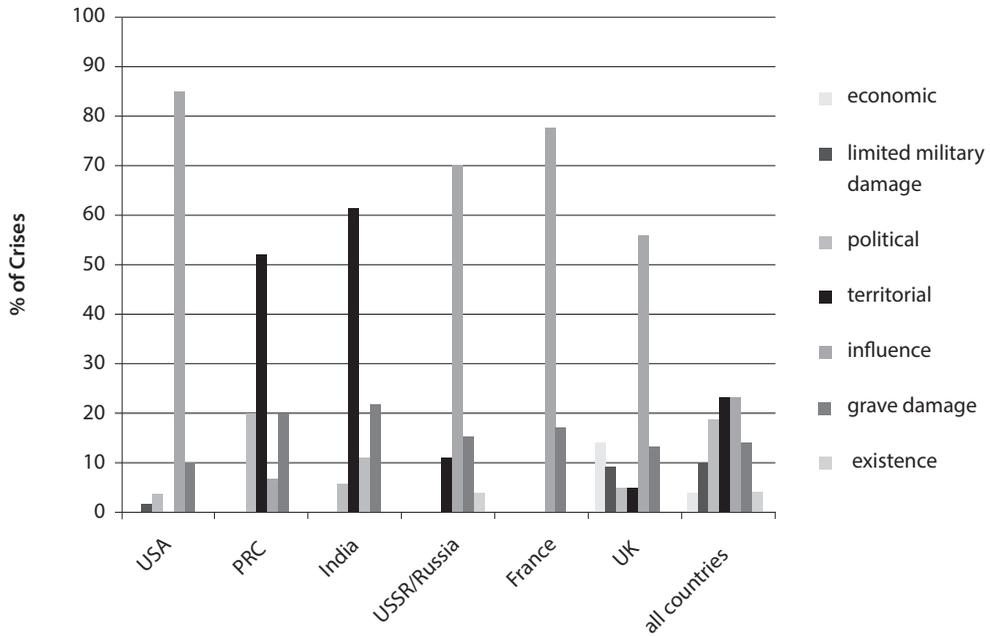
Source: International Crisis Behavior Database.

was at a peak in the 1950s and the 1980s. In the 1950s the key issues were Korea and Taiwan;⁷¹ in the 1980s they were land and ocean disputes with Vietnam (see figure 2). The ICB data show that the majority of China's crisis involvement has been related to territory. This pattern is not uncommon for new states trying to establish the credibility of their control over boundaries or for states whose nationalism posits victimization at the hands of colonialism.⁷² It would explain, for instance, the similarities between democratic India and nondemocratic China shown in figure 3.

Given the importance of territory for security and as a symbol of sovereignty, it is also not surprising that the level of coercion occurring in territorial crises tends to be higher than in nonterritorial ones. In crises where the main values threatened were territorial, violence was China's preeminent response in 50 percent of the cases. Otherwise, violence was preeminent in 33 percent of China's responses (see figure 4).⁷³

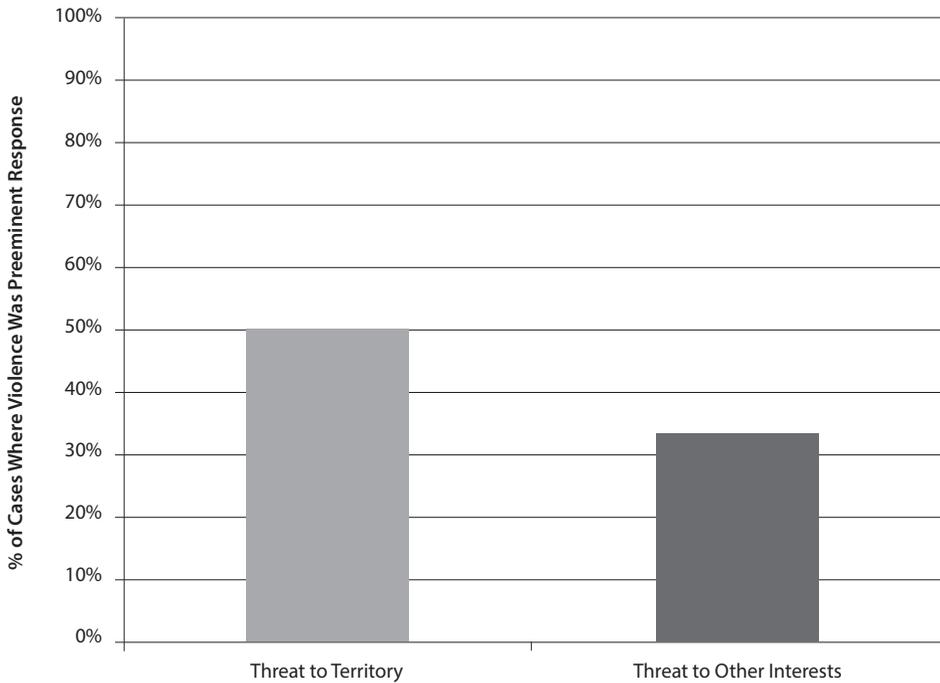
What might explain China's greater willingness to use violence in territorial crises? For the prereform era, the militarism inherent in Maoist ideology might be a reasonable hypothesis. The fact, too, that U.S. containment policy in East Asia was particularly and proactively coercive (at least as judged by China's leaders) may be part of the story. In the postreform period, we do not have a very large number of crises on the basis of which to test various explanations. Since many crises in the post-Mao Zedong era have involved Vietnam or Taiwan, the

FIGURE 3
COMPARATIVE IMPORTANCE OF DIFFERENT ISSUES AT STAKE IN CRISES



Source: International Crisis Behavior Database.

FIGURE 4
RELATIVE FREQUENCY OF VIOLENCE AS PREEMINENT RESPONSE IN INTERNATIONAL CRISES, CONDITIONAL ON TYPE OF THREAT



Source: International Crisis Behavior Database.

high level of coercion employed may have to do with the zero-sum nature of disputes over territory.

It is a little hard to know what to infer from these data about China today, since, as of the most recent data from the ICB (2007), China's last crisis was over the Taiwan Strait in 1995–96. Anecdotally, however, it does seem likely that the relationship between territoriality and intracrisis coercion will continue to hold. For instance, in my interactions with Chinese officials and analysts on crisis management, they have implied that in crises concerning territorial integrity, should an adversary take the “first shot” (e.g., an actual warning shot or the first use of, say, navy ships in place of coast guard assets) or threaten China's actual control over territory, Chinese decision makers may conclude that the issue has moved from the realm of crisis management to that of escalation dominance. At that point, force (framed as a “second strike”) becomes necessary to compel the adversary to back down. Such a response would also help demonstrate resolve against the prospect of any further escalation. Like their American counterparts, Chinese leaders are intensely focused on the credibility of their resolve. In addition, it is not clear that Chinese leaders believe the crisis-management principle of early and clear communications with other relevant actors applies to territorial and sovereignty issues. In a territorial dispute, China might decline to initiate top-level crisis-management communications with actors who are not themselves actual claimants (e.g., the United States with respect to China's maritime disputes), so as to underscore the illegitimacy of their involvement. The same reluctance to initiate high-level contacts might also be on display in a crisis incident (e.g., a ship or air collision involving foreign military forces) occurring very close to Chinese territory but outside territorial waters. The argument might be that the illegitimacy of foreign hostile actions so close to China means Beijing is not responsible for initiating high-level communication (though there are different views on this within China's crisis-management expert community). On territorial issues the crisis-management principle of flexibility may also not apply.⁷⁴

Blurring of Internal and External in the Concept of Comprehensive National Security

The Chinese crisis-management literature tends to draw no clear distinction between internal and external contingencies. It acknowledges that internal crises often spill over into external conflicts (as the SARS and certain nontraditional security crises have suggested), and vice versa.⁷⁵ Chinese analysts' lists of the crises in which China has been involved in the past or may be involved in the future invariably include both external (e.g., the Korean War, the border war with Vietnam in 1979, the U.S. bombing of the Chinese embassy in 1999, the DPRK nuclear crisis of 2002, conflicts over ocean rights in the South and East China Seas) and internal crises (e.g., Tiananmen in 1989, SARS in 2003, Taiwan independence, Tibet and Xinjiang separatism).⁷⁶

The focus on the link between external and internal crises, however, implies that international crises can increase the intensity of any domestic legitimacy problems then ongoing.⁷⁷ In the view of one NDU study, external crisis affects “comprehensive security,” which includes social and economic stability.⁷⁸ The flip side of this is that international crises can also have a useful secondary effect in reinforcing domestic legitimacy and cohesion.⁷⁹

Whether a crisis threatens or helps domestic stability, for Chinese experts effective crisis management includes information management—constraining and guiding public opinion and avoiding domestic public debate that “limits the space for the government to handle the crisis situation.”⁸⁰ Thus, according to these experts, a guiding axiom should be to consider the implications of external crises for domestic political power and stability.⁸¹ As the 2003 CICIR study put it, in crisis management the leadership needs to prevent a bilateral political crisis from expanding into, or influencing, a domestic social one. Otherwise the population’s emotional and fearful responses could constrain options. Therefore, the authors argue, it is critical to manage the media and use them to guide public opinion.⁸² Or in the words of the 2010 Shanghai Institutes of International Studies (SIIS) study, in crises “China’s policy propaganda to a large extent is aimed at the internal population.”⁸³ The risk for crisis management, however, is that this link between external crisis and internal legitimacy can raise the stakes in a crisis, making concessions harder. Indeed, according to some PLA authors, on issues related to domestic stability and the unity of ethnic nationalities in China there is no room for bargaining in a crisis.⁸⁴

Another implication of the blurring of inner and outer has to do with how some in China and outside view ethnic Chinese as potential extensions of PRC power and influence. Some analysts see overseas Chinese as useful tools in crisis management, particularly in information and perception management. They recommend making use of overseas Chinese networks to make Beijing’s case in a crisis.⁸⁵ The downside for crisis management, however, is that other countries might see their ethnic Chinese communities as tools or agents of Chinese power and therefore as threats. For example, anti-Chinese sentiments in Indonesia have historically been a source of tension in PRC-Indonesian relations; also, there is survey evidence that a substantial minority of the U.S. population (around 30–35 percent) view Chinese Americans as less loyal to the United States than to China.⁸⁶ The risk for crisis management is that trying to exploit the presence of overseas Chinese to lobby in favor of China’s position, or even creating that impression, could lead to a backlash against them. In the American case, that in turn could accentuate zero-sum, racist, and ethnocentric perceptions in the domestic politics of the bilateral U.S.-Chinese relationship, with concomitant negative effects on long-term bilateral political stability.

The Need to Claim the Moral Upper Hand

A number of Chinese sources note that in a crisis the nation's leaders need to appear to hold a normatively superior position, to be seen as just (*zhengyi*) and moral (*daoyi*). Preserving this image is considered a national interest.⁸⁷ This may explain the highly moralistic language used in crises. Some experts claim that one of China's strengths in international crises is its ability to mobilize external support through appeals to its normative superiority;⁸⁸ others note that the targets of this moralism are often domestic constituencies within China.

A corollary to moralism is the demand for apologies and symbolic concessions from the adversary. In particular there appears to be a preference for adversaries to accept responsibility before China acts to dampen the situation.⁸⁹ This emphasis on putting normative responsibility on the adversary's head is inconsistent with the crisis-management principle of avoiding zero-sum ideological positions. Moreover, to the extent that the notion of moral superiority is internalized, it can lead Chinese decision makers to underestimate the perceived threat that their actions can generate. In other words, it reduces the capacity for empathy and perspective taking, and perhaps even the urgency to resolve the crisis quickly.⁹⁰

Beliefs about Chinese Exceptionalism

Another apparently deeply held belief that could affect crisis-management practice is the claim that, among the major powers, China's people, history, and current policies are uniquely peaceful and defensive.⁹¹ These essentialized traits are rooted, according to many in China, in ancient political philosophy, such as Confucianism.

This self-orientalization creates a problem for crisis management, however. Social psychology shows that under conditions of perceived threat, the more one believes that one's in-group is uniquely different from others—even if one believes this difference starts with its peacefulness—the more one is likely to hold a realpolitik worldview and to support realpolitik practices to resolve conflicts. At the level of the individual, perceived threats to the in-group increase the salience of negative out-group traits. The more salient the out-group, the greater the perceived identity difference with the Other. The greater this perceived difference, the less empathy for the out-group, and hence the more competitive the relationship with the out-group is perceived to be.⁹² This sense of competition tends to be related to a view of the external world as dangerous to the group. This sense of danger in turn is associated with a greater concern for relative gains, and a more zero-sum perception of international politics.⁹³ It is also associated with "attribution errors," a tendency to see one's own actions as unavoidably defensive in the face of an adversary predisposed to threaten. In a crisis situation, therefore, strong perceptions of exceptionalism may escalate stakes and limit options in more-coercive

directions. This may be especially the case when perceptions of Chinese exceptionalism meet perceptions of American exceptionalism in a crisis.⁹⁴

Absolute Flexibility (Quanbian)

The concept of *quanbian* infuses traditional and modern Chinese strategic thinking. It means, more or less, “weighing the situation and responding to [advantageous] change.” It is an axiom asserting absolute flexibility; any limits on acceptable actions are primarily political, not normative. This concept of expediency appears as well in discussions about how much benefit one side can prudently derive from a crisis. In the view of one NDU expert, one task of leadership is to discover and exploit any advantages that might accrue from a crisis.⁹⁵ This requires that decision makers constantly search to see how benefits in one issue might connect to benefits in another. According to one GSD analyst, this flexibility allows leaders to use small crises to prevent larger ones and to use larger crises to prevent war.⁹⁶

The question is whether, in practice, this emphasis on absolute flexibility reduces or increases the likelihood of crisis escalation. On the one hand, it could reduce escalation pressures, because a prior knowledge of linked benefits allows one to come to an agreement with the adversary earlier rather than later. On the other hand, the constant search for maximum linked benefits could lead a side to hold out for more, denying the other side any payoffs and thus increasing the chances of escalation. While some Chinese crisis-management experts appear to acknowledge this first possibility, they do not provide particularly clear guidelines for avoiding the second.⁹⁷

Conforming to the “Overall Situation” (Da Ju)

The term “overall situation” refers to the general political and strategic goals of the Communist Party. Conforming to the overall situation (*fucong da ju*) means subordinating narrower or parochial interests to this primary purpose of state action. More broadly, the overall situation can mean the objective trends in the development of a situation, as correctly understood by political leadership. Some crisis-management specialists believe that China’s strategic principle of subordinating coercion to the overall situation is a source of restraint in crises.⁹⁸ To the extent that the overall situation in, say, bilateral relations with another country is to preserve positive interactions, this concept could dampen escalation.⁹⁹ Dialectically, however, the “*da ju*” could have the opposite effect. From the perspective of *da ju*, military setbacks are not necessarily self-detering if they either do not negatively affect the party’s control over the *da ju* or can be construed as supporting the *da ju* (e.g., losing tactically, but gaining strategically by standing up to hegemonism). A common narrative in Chinese perceptions of the nation’s strategic history is that “good guys” operate often as the weaker side and so lose a lot of battles but win in the long run by focusing on *da ju*.¹⁰⁰

Weak-State Identity

Many Chinese crisis-management experts start with the assumption that China is weaker than the United States. Despite the growth in China's relative material power in recent years, this still seems to be a commonly held heuristic; the standard for judging progress in acquiring power is often the United States. Accordingly, they believe, it becomes important for China to show resolve in the face of superior capabilities and to be less transparent so that the stronger side (the United States) exaggerates Chinese capabilities, by which deterrence is enhanced.¹⁰¹

This concept of "asymmetrical transparency" (*bu duichen de toumingdu*) may well enhance deterrence, but it undermines crisis-management principles. Some

A central feature of China's crisis-management behavior is sensitivity to perceived threats to the nation's sovereignty and territory.

analysts in the PLA are aware of this tension or contradiction.¹⁰² As a recent NDU study put it, decision makers need to understand the trade-off in crises between hidden inten-

tions and transparent communications. The admonition is that in general one should not reveal one's intentions but should also not let the adversary's strategic misperceptions persist if they are disadvantageous to oneself.¹⁰³ Nonetheless, it is not obvious from PLA writings how this tension should be resolved. That is, it is unclear under what conditions one should expect ambiguity versus clarity. This makes interpreting Chinese signals in a crisis difficult.¹⁰⁴

Another problem for crisis management created by the weak-state identity is that, for some theorists, weak states are, and should be, less constrained by crisis-management principles than strong states. For instance, weak states are under more pressure to show resolve, so as to compensate for limited capabilities. One also hears the argument that the weaker side should be less constrained by crisis-management principles because it needs more flexibility and maneuverability. A weak state's deterrence signals are easier to read. Since it cannot credibly threaten to defeat the stronger side, there is a large range of threats it will not make. Therefore, the weaker side's deterrence signals are, proportionately speaking, more obvious than the stronger side's. This line of thinking, however, can lead to overestimating the clarity of one's intentions and underestimating the provocativeness of one's actions. In other words, it can reduce the empathy required to understand the other side's redlines and to predict unintended consequences.¹⁰⁵

Tension between Crisis-Management Principles and Military Concepts

Experts acknowledge that the PLA is primarily trained and configured to fight wars, not engage in crisis signaling. They tend not to go into detail about the contradictions between these two types of military actions. One exception is NDU senior colonel Xu Hui's list of coercive-diplomacy tactics that could be

useful in crisis situations (e.g., limited probes, faits accomplis, tit-for-tat retaliation, and clarification of bottom lines). He describes them as mostly involving limited demonstrations of capability and will to capture the diplomatic initiative and create coercive pressure on the adversary to back down. He is careful to point out that conditions for successful intracrisis coercive diplomacy are quite limited, and that in the heat of a crisis nonrationality, information problems, and rapidly changing circumstances can lead to escalation.¹⁰⁶ Indeed, a closer look at some PLA operational concepts suggests obvious areas of tension or friction between the principles of crisis management and how the Chinese military tends to think about the use of force.

Windows of Opportunity/Vulnerability Logic. There is some evidence that in applying force in the past, Chinese leaders have been particularly sensitive to the closing of windows of opportunity or the opening of windows of vulnerability. They believe that force, even when China is relatively weak, can be useful in shaping the political environment early on, before political and military trends turn even more unfavorable (*wan da bu ru zao da*—“fighting later is not as good as fighting earlier”), in order to seize the initiative and emerge superior.¹⁰⁷ There are too few cases in the post-Mao period to determine how much this thinking has persisted, but it would seem inconsistent with stabilizing a crisis situation.¹⁰⁸

The Importance of “Creating Inexorable Momentum” (Zaoshi). Central in Chinese concepts of deterrence signaling is the notion of inexorable momentum, whereby the adversary comes to perceive that unless it backs down China is certain to use decisive force.¹⁰⁹ Instilling this perception appears to be mainly an exercise in signaling willingness and intent to escalate—in other words, that the adversary has lost its ability to deter. The risk here is that in a crisis over territorial disputes, for instance, once a threshold of violence—real or symbolic—has been crossed, escalation might be seen as a legitimate tool to force the other side to de-escalate. The PLA concept of “war control” (*zhanzheng kongzhi*) seems to capture this process of creating “inexorable momentum,” by which, through credible threats of escalation, the scope and duration of wars can be limited.¹¹⁰

In some PLA writing there seems to be a hierarchy of means for creating inexorable momentum. For instance, the latest version of the NDU’s *Science of Strategy* lists eight methods of signaling (moving from least to most escalatory): public statements indicating a willingness to use force; raising of the level of weapons preparations; displays of strength through publicized exercises; redeployment of forces; raising of military alert levels; attacks on the adversary’s information systems (including cyber attacks); weapons tests and proactive disruption of the adversary’s military movements; and limited attacks as warning signals.¹¹¹ Actions at and above category five could be particularly escalatory in a crisis, since they

would likely be viewed as marking a very dramatic shift in operational restraint and official policy.¹¹² Variants of this list of actions for creating momentum show up in other PLA writings on deterrence, including a classified study of nuclear campaign theory.¹¹³

Uncertainty as a Source of Crisis Stability (and Deterrence). In contrast to the principles of crisis management, some deterrence thinking in the PLA stresses the importance, initially at least, of a *lack* of clarity and transparency, on the ground that uncertainty induces caution in an adversary (thus the importance of “tricking” [*qi di*] and “confusing” the enemy [*mi di*] for deterrence purposes).¹¹⁴ Even some PLA authors on crisis management who acknowledge the importance of clear signals also caution that this principle is not absolute. Rather, there are occasions in a crisis when deliberately ambiguous signals can be used to ascertain the other side’s bottom line.¹¹⁵

Controlled Hard-Line Policies. Another tension with crisis-management principles arises from the idea that the controlled escalation of force can enhance diplomatic leverage and resolve crises to one’s advantage. Indeed, some analysts believe China’s uses of force in past crises are examples of successful crisis management.¹¹⁶ As one author puts it, limited war—conveying that even higher costs could result if a crisis is not resolved—is a potential tool of crisis management.¹¹⁷ Other Chinese crisis-management experts note the positive role of military force for crisis prevention and crisis-management purposes. Yu Qiaohua argues, for example, that operationally, military blockades, quarantines, and actual attacks are all potentially useful tools within a crisis, as long as “limits” (*du*) are observed and the overall political purposes of crisis management guide their use.¹¹⁸ Use of such tools would be a case of “using crisis to respond to crisis” (*yi weiji yingdui weiji*).¹¹⁹ Wang Yong suggests that military preparations for war and displays or flaunting of military power can enhance deterrence and thus serve the purposes of crisis management. Deliberately fostering dissension and intrastate conflicts on the other side to enhance one’s political influence in a crisis is also useful. In the diplomatic realm, Wang suggests, cutting off or suspending diplomatic ties and trying to isolate the other side can on occasion be helpful diplomatic tools.¹²⁰ Chen Zhou, a major strategist at the Academy of Military Science (AMS) and the lead author of China’s National Defense White Papers, argues that under conditions of informatization, precision conventional weapons can take on strategic deterrence roles that nuclear weapons had in the past. But conventional weapons cannot by their mere presence generate the fear in an adversary that nuclear weapons can. Thus, unlike with nuclear weapons, actual demonstrations of conventional weapons are needed to enhance their credibility as instruments of deterrence.¹²¹

To be sure, the use of limited military operations is treated cautiously by some crisis-management specialists. Yu Qiaohua himself admits that there are risks in using military force as a bargaining tool in a crisis: it can lock one into a chain or cycle of escalation.¹²² SIIS crisis-management experts argue that given asymmetries in hard power, China cannot rely on military force as a first resort in Sino-U.S. crises, even on the Taiwan issue, where the balance of interests favors China.¹²³ Still, these voices of caution highlight the arguments in favor of limited uses of force to compel the adversary to back down.

Network and Electronic Integrated Warfare. Computer-network operations and electronic warfare are of growing importance in PLA operational concepts. There are at least three reasons why Chinese computer-network operations might make it harder to contain crisis escalation. First, the centrality of computer-network operations in the early stages of a conflict (to confuse and misdirect the adversary, disrupt command and control, and thereby seize the battlefield initiative) may lead the target of such operations to assume they presage a major escalation by the PLA.¹²⁴ Given the importance for the PLA of controlling the initiative, evidence of Chinese computer-network operations in a crisis might be interpreted by the target as a more aggressive act than warranted by the crisis itself. This interpretation, in turn, will make controlling escalation more difficult. In the case of the United States especially, fears of attack on critical infrastructure, against a backdrop of substantial offensive computer-network capability and policy guidance, might produce a large-scale offensive response. Second, the difficulty in identifying culprits (attribution) in some cases can have an added escalatory effect, because, given the apparent centrality of computer-network operations in China's conventional operations, adversaries may assume that false-flag or third-party attacks are in fact Chinese. Finally, asymmetry between Chinese and American (in particular) levels of confidence in attribution may also be escalatory. Compared with many American cyber-warfare experts, PLA cyber specialists appear to believe attribution is very difficult. This may lead them to more-risk-acceptant behavior in cyber, (overly) confident that operations will not be attributed to the PLA. Conversely, the United States may be more risk-acceptant in preemptive cyber attacks or cyber retaliation against China, confident that it has identified the source of attack.¹²⁵

PROBLEMS IN CRISIS DECISION MAKING AND RESPONSE

China's experts in the field are, on the whole, quite critical of what they see as the deficiencies in China's crisis-decision-making process. Their criticisms basically fall into two categories: first, top-level decision-making processes and institutions, and second, military command and operations.

Inefficient Decision-Making Procedures

Prior to the recent establishment of the Central National Security Committee in 2013 (about which more below), there was somewhat of a consensus among Chinese experts that China's crisis-management decision-making system was inefficient and in need of a major overhaul. As NDU specialists bluntly put it, China lacked an up-to-date national-security structure that could effectively prevent or warn of threats or command and coordinate responses to them.¹²⁶ The danger of slow decision making was that crises could not be nipped in the bud with political and diplomatic tools. There could be major negative consequences—the longer a crisis festered, for instance, the more likely “hegemonic major powers” (e.g., the United States) would intervene to China's detriment.¹²⁷

The problems started at the very top. It was widely recognized that the post-Deng collective senior leadership slowed decision making by searching for consensus, whereas the system had been designed to allow a stronger leader to coordinate and enforce policy.¹²⁸

In 2000, in an effort to streamline national-security decision making, the party set up the National Security Leading Small Group (NSLSG), led by the party general secretary and comprising representatives of major national-security-related bureaucracies. The NSLSG was set up with considerable hope that it might improve information flows and break down interbureaucratic barriers. However, it proved a disappointment in practice, according to crisis-management experts. It lacked legal standing and clear lines of authority. It was too slow, and insufficient for cross-unit coordination.¹²⁹ It tended to lack detailed plans and response rules. In any case, as Chinese critics point out, “leading small groups,” although they often exist for long periods, are by nature temporary responses to pressing problems. They are not designed to preserve lessons learned.¹³⁰

In principle, policy options for the NSLSG to consider were to have come from the Communist Party's Foreign Affairs Office, the Foreign Ministry, the General Staff Department, and specialized agencies, depending on the issue (e.g., the Taiwan Affairs Office).¹³¹ But crisis-management experts complained that in practice these options were not sufficiently staffed—issues were sent to the top, but options were not, with the result that China's leaders had to debate the issues at stake and determine the credibility of the information sent to them before determining and then choosing between options.¹³²

Furthermore, it appeared that even when a decision was made by the Politburo Standing Committee (PBSC), there was no coordination mechanism to mediate among bureaucratic or organization of interests and ensure implementation. In a traditional military crisis, three basic groupings need to work closely together: the State Council system (that is, the national government, through the Foreign Ministry) handles foreign-policy aspects; the party-affairs system handles

organizational issues (through the party Secretariat), propaganda (Propaganda Department), and relations with external ruling political parties (International Liaison Department); and the CMC system handles military affairs (through the GSD).¹³³ Horizontal coordination between these entities is very difficult without explicit direction from the PBSC. The CMC will not accept direction from the State Council on foreign or military policy. Other institutions as well have cross-system authority, but their authority does not extend to the PLA. For instance, the powerful National Development and Reform Commission, being at only the ministerial level, can coordinate the State Oceanic Administration (in charge of China's coast guard) but not the navy. The Foreign Ministry too is not authoritative enough.¹³⁴ Also, the party's International Liaison Department is not decisive in general foreign policy; it weighs in only on specific issues (e.g., it appears to have had a leading role in relations with the DPRK).

In short, there has been a clear tension between the need for quick decision making and the multiplicity of organizational interests involved.¹³⁵ In the decade and a half after the NSLSG was set up, Chinese crisis-management experts, including military ones, complained that China still lacked a powerful and authoritative crisis-management leadership hub that could effectively coordinate military and civilian elements within a clearly defined legal framework of responsibilities.¹³⁶ As one PLA study put it, citing internal critics, whether in terms of composition or function the NSLSG system was unable effectively to "protect national interest, preserve national security."¹³⁷

In light of all these problems, over the years many Chinese experts in the field proposed various crisis-management decision-making mechanisms to replace or reform the NSLSG. For example, in its 2003 study cited above, CICIR suggested that an ideal system needs a small, powerful decision-making hub served by a crisis-management general-staff mechanism.¹³⁸ Diverse voices would need to be heard in the process. Beneath this decision hub, there should be, CICIR argued, an implementing agency composed of all relevant departments (national security, police, fire, medical, health, transportation, etc.). A third structure would supply timely, accurate intelligence; this information system would also be responsible for domestic information management, so as to ensure social stability and prevent the loss of domestic control, thus giving the decision-making hub more flexibility in a crisis.¹³⁹ One gets the impression that these were lessons drawn by CICIR from China's own management of past crises, not just foreign examples.

PLA crisis-management experts also made suggestions for institutional reform. In 2008, Yu Qiaohua proposed a crisis-management "decision mechanism" that would integrate decision making, implementation, propaganda, intelligence, and "feedback." It would be high level, small, and cross-bureaucratic.¹⁴⁰ Some of the most-detailed openly available proposals, however, came from NDU.¹⁴¹

Among their core elements was that China should build a “National Security Committee” on the basis of the existing NSLSG.¹⁴² Its membership would be established in law and include the whole PBSC and the heads of the leading military, diplomatic, intelligence, and economic organs. This committee would design, prepare, and deploy a national security strategy. In crisis it would be in charge of decision making. It would be served by a specialized intelligence analysis unit to ensure the coordination of military (PLA) and state (Ministry of State Security) intelligence and to eliminate the stovepiping of information.¹⁴³ Within this committee would be a specialized “small group” with direct responsibility for development and execution of crisis-management contingency plans. Subcommittees would be specifically tasked to manage security, domestic/social, economic, and information/cyber aspects of a crisis. Beneath them would be an advisory group of experts and specialists on particular relevant topics, duly authorized to provide advice.

Providing further assistance, under the various NDU proposals, would be organizations in functional departments. These would provide detailed contingency plans and feedback to upper levels. In particular, they would focus on reducing frictions and inefficiencies in the military/civilian leadership systems, in the military/civilian intelligence integration process, and in the lines of administrative control over homeland and border or frontier security.

In the last few years, in light of the failure of the NSLSG to become efficient in crisis-management decision making, some experts suggested that the best that could be hoped for was for the PBSC to pick one of its members as the recognized coordinator and implementer of national security decisions, since (as noted above) no one below that level had authority to coordinate the State Council, party, and PLA. But these experts recognized that to grant such authority to one individual would likely run into two problems right from the start. First, it would imply a diminution of the authority of other members of the PBSC, who would be unlikely to accept any marginalization. Second, the PLA would be unlikely to accept any arrangement that could downgrade its status and access, through the CMC, to the top leader.¹⁴⁴

I raise all this history as context for the decision in 2013 to set up the Central National Security Committee (CNSC), headed by the party general secretary and reporting to the PBSC. Reports about its composition, functioning, and scope are still quite vague, and as of this date the CNSC has not interacted as an institution with another country’s equivalent decision-making units. In contrast to the “leading small group” system, the CNSC is supposed to be permanent, though it is not yet an unambiguously legally established national or party institution. The CNSC handles both internal and external security issues. Much of the official commentary on the institution stresses its *internal* security role,¹⁴⁵ nevertheless,

some Chinese analysts believe among its tasks will be external crisis management.¹⁴⁶ Indeed, initial reports suggest that its main functional units are bureaus for strategy, intelligence, and crisis management, as well as a comprehensive bureau and an expert advisory group—elements intriguingly similar to the NDU proposals.¹⁴⁷

It remains to be seen, however, whether the CNSC can reduce the tension between the need during crises for centralized decision making at the very top and the diversity of actors and interests involved. On the one hand, the CNSC explic-

A deeply held belief that could affect crisis-management practice is the claim that China's people, history, and current policies are uniquely peaceful and defensive, traits that are rooted in ancient political philosophy, such as Confucianism.

itly places national-security policy decision making in the hands of the party's general secretary, who outranks the leaders of all security institutions and organizations, including the PLA members of the CMC. Moreover, in

principle it moves the day-to-day management of national security policy up from the party's Foreign Affairs Office to its Central Office, the current head of which, Li Zhanshu, is a member of the Politburo and thus outranks the state councilor in charge of foreign affairs, Yang Jiechi. Li holds the same institutional rank as the leading PLA members of the CMC but formally works on behalf of the CNSC, which is headed by the general secretary.¹⁴⁸ That association may give him a degree of authority over the military members of the CMC.

On the other hand, it is unclear at this point how the new CNSC will actually function once it is fully operational. Its first meeting did not occur until April 2014, too recently to allow judgments as to how efficient it will be in a high-stakes, short-time-horizon dispute involving a real possibility of military escalation (e.g., a military crisis over the Senkaku/Diaoyu Islands). The functional bureaus were supposed to be up and running by the end of 2014, but that date was apparently missed. For another thing, the CNSC appears to be composed of the same fifteen or sixteen institutions and interests that made up the old NSLSG—the PLA, the Foreign Ministry, the security services, and the institutions handling Hong Kong and Taiwan issues and minority affairs, among others.¹⁴⁹ It is unclear that Li Zhanshu or his successor as head of the General Office will be all that involved in external crises, even though they are closer to the top leader than the state councilor in charge of foreign affairs. Indeed, as of this date, the Foreign Affairs Office continues to function, and some Chinese interlocutors believe the state councilor in charge of foreign affairs will remain, for the foreseeable future, a key interlocutor with foreign countries during a crisis.

Finally, there are some unanswered questions concerning how the committee will operate. One expert on crisis management from the National College of Administration has cautioned that the new CNSC will have to resolve the following four issues.¹⁵⁰ First, will it be mainly a decision-making body or a coordinating body designed to ensure smooth coordination among military, diplomatic, and other bureaucracies without replacing those institutions? Second, how will its responsibilities be bounded, given it is supposed to balance “internal affairs and external security”? (Xi Jinping has listed eleven types of security that would fall under the CNSC: political, homeland, military, economic, cultural, social, science and technology, information, ecological, resource, and nuclear. Presumably crises in all of these areas would be analyzed and managed by the CNSC.)¹⁵¹ Third, what is the constitutional and legal status of the CNSC? It is currently defined as both a leadership organ directly under the authority of the party center and a state institution.¹⁵² Its legal status affects its legitimacy and thus its effectiveness. Finally, will the CNSC have a sufficiently large, professional, and specialized staff to improve the flow of information inputs and decision outputs, and reduce parochial conflicts between participating departments and organizations?

That these are all still open questions well after the party stood up the CNSC suggests that it is unclear whether the new committee will fully fix the problems in decision making identified by China’s crisis-management specialists. As of this writing (mid-2015), Chinese interlocutors consistently state that the CNSC is neither fully staffed nor functioning as a decision-making institution.

Command and Control Problems

Another question at the heart of military crisis management is how to employ the PLA to send clear signals and, if necessary, to respond to low-scale military challenges. Some Chinese specialists think that the nation’s options for using the PLA in a crisis are underdeveloped. They contend that it has engaged in purposeful military signaling almost solely on the Taiwan issue, raising the likelihood that should Chinese leaders try in other crisis situations to use the PLA to send political signals these will not be read correctly.¹⁵³

Moreover, given the lack of experience among current Chinese leaders in coordinating diplomatic and military actions in crises, some Chinese experts believe that they may overreact to initial military moves by the other side. When Chinese leaders believe that a crisis is mainly diplomatic in nature, they may be reluctant initially to use the PLA for signaling purposes. This means that if other states resort to military means early on, in a crisis, even if only symbolically—for instance, shifting from “white-hull” (coast guard) to gray-hull (navy) assets—Chinese decision makers may believe the situation has evolved more quickly than they had expected to a serious military crisis and respond by escalating.

Beginning around 2005, there seems to have been some attempt to puzzle through how military power can be used in crisis management in ways that balance restraint (and thus downward pressure on escalation) with effective coercion to get the other side to exercise restraint itself. The PLA's Wang Yong, for instance, taking a close look at U.S. behavior in military crises, isolated a number of ways in which military power could be used by political leaders in preventing, or acting during, a military crisis. These modes ranged from using aircraft carrier groups (as signals of interest in particular areas or issues) to isolating or quarantining adversaries.¹⁵⁴

Restrained employment of military power in crises, however, requires systematized and institutionalized analysis and planning in order to produce a useful set of rules, procedures, and templates for civilian leaders.¹⁵⁵ As noted earlier, in 2006 the CMC approved the *Overall Contingency Plans for the Military's Handling of Sudden Incidents*, which specifically identified five crisis-management tasks for the PLA, the first being the handling of military crises including border and territorial disputes.¹⁵⁶ The PLA has also set up an Emergency Response Leading Small Group, supported by the GSD Operations Department's Emergency Response Office and its twenty-four-hour emergency-response duty office. The GSD Emergency Response Office is responsible for coordinating PLA responses and when necessary coordinating with civilian units in all types of sudden incidents, domestic and external.

In addition, according to the 2006 *Overall Contingency Plans*, under certain circumstances division- and regiment-level commands could skip over the next-higher echelon in reporting on a crisis. Similarly, higher-level commanders could skip intermediate echelons to control forces. The point would be to have as flat a command structure as possible. In a crisis concerning national sovereignty, the purpose of this flexibility would be to reduce the intervening command nodes and speed up the response.¹⁵⁷

That said, PLA crisis-management specialists are concerned that the PLA command structure is still primarily designed to fight and win more-traditional wars rather than to handle limited border crises. They fear that the PLA still does not train or arm itself in sufficiently diverse ways to respond to the myriad new operational scenarios that fall within international military crisis management (under the rubric of nonwar military actions). NDU experts, for instance, complain that the PLA has insufficient reconnaissance, early warning, and positioning capabilities to operate effectively in defense of maritime interests. Its personnel, they hold, need more political and psychological training to deal with large-scale terrorist attacks and informational uncertainty and rumor-mongering in complex political crises. It needs to revise fighting methods and its concepts

for a broad range of land and sea border crisis operations (e.g., how to blockade, intercept, deter, control, or defeat enemy actions).¹⁵⁸

Moreover, according to these PLA analysts, traditional wartime command structures make it difficult in a crisis situation to coordinate with all the non-PLA units and organizations that are often involved (e.g., the various central, provincial, and local ministries, government agencies, and armed units involved in, say, border security, such as the People's Armed Police [PAP], the Public Security Bureau, and the people's militia).¹⁵⁹ Some PLA planners have worried, for instance, that the response time for getting soldiers to crisis areas is too long and that plans for physically setting up command posts to coordinate operations, communications, intelligence, logistics, and security in local areas are underdeveloped.¹⁶⁰

Indeed, in recent years, the PLA has investigated different types of command models for handling NWMA including border or frontier crises.¹⁶¹ One model would rely on a two-tiered command structure comprising a high(er)-level department's emergency management office and the local area command most directly affected—that is, the “key point.” The key point command organ would have authority to command forces from different branches and incorporate personnel from units in charge of land-, ocean-, or air-frontier defense management (presumably including nonmilitary groups). If the crisis were large enough to involve two or more war zones, the higher-level command authority would be national. If, in contrast, the crisis were contained within one war zone, the highest-level command authority would be the emergency management command office for that zone.

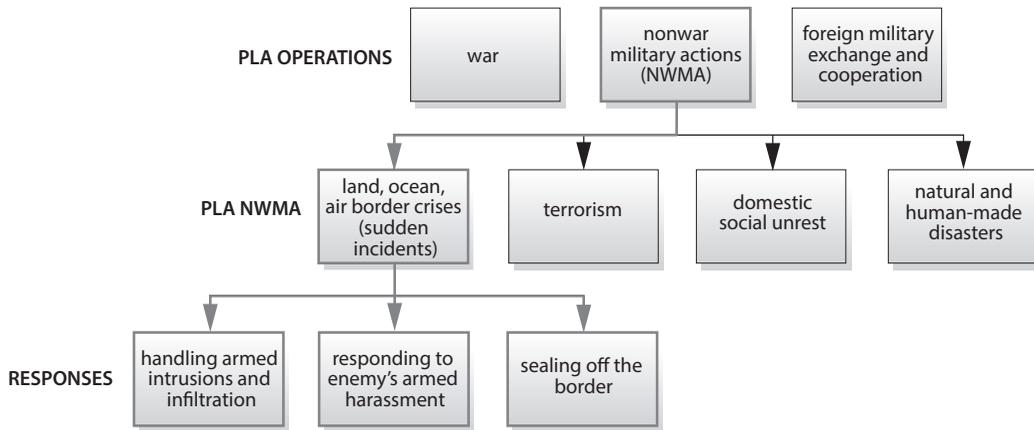
Another model for crisis command—for contingencies crossing two or more military regions or war zones—would have three layers. At the top would be the national-command emergency management or crisis response organization. Below it would be a joint military-region-level emergency management or crisis organization. Below that would be the local joint-command structure, comprising PLA, PAP, and land-, ocean-, or air-frontier defenses.

Under either model, first-line forces would need to have clear functions, rules, and legal support so they can respond as quickly as possible. Command groups dispatched to the scene of the crisis would also need more autonomy than they currently have.¹⁶²

Contingency Planning Problems

Regardless of level of command or how many layers of command there are, PLA specialists suggest that the emergency-response or crisis-management command organization at each level should fulfill a range of functions, foremost being

FIGURE 5
MILITARY OPERATIONS UNDER NONWAR MILITARY ACTIONS



planning crisis contingencies.¹⁶³ These contingency plans would range from overall contingency plans for border/frontier crises (for the national military leadership, the military region and branch headquarters, and corps-level units) all the way to localized plans distributed to units at the corps, division, brigade, regiment, battalion, and company levels.

PLA crisis-management analysts envision contingency plans for three types of responses or operations (see figure 5).¹⁶⁴ The first is dealing with “armed intrusions and infiltration” by the enemy. Here, according to PLA writings, military crisis-management plans should focus on operations for interception, ambush, encirclement, and pursuit; confrontation and expulsion; and prevention of enemy landing, control of key points, cutting off of the enemy’s retreat routes, and surrounding and elimination of the enemy. There should be limits, however, PLA analysts believe, to these kinds of operations. In all such cases, command has to pay special attention to the political implications of operations within and beyond China’s boundaries. For instance, if an enemy aircraft infiltrates Chinese airspace, it is better that it be shot down within the borders than just outside. Once the enemy plane is between China’s boundary and the high seas, pursuit and attack should cease. Otherwise, should the enemy plane crash outside the border, diplomatic image problems could be created that put China in a more passive or defensive political position.

In the case of foreign military forces operating in disputed areas where China’s control is weak and the foreign country is “nibbling” (*canshi*) away at Chinese territory, the response should be to use bilateral channels to communicate China’s position, to engage in active military actions designed to deter further expansion, and if necessary to use force to expel the enemy from the disputed territory. This might involve directly confronting enemy forces, mounting surprise flank

attacks, cutting off routes of retreat, retaking small but easily defended parts of disputed territory, cutting off enemy supplies, or grabbing a high-profile piece of territory to shock and awe (in U.S. parlance) the adversary. The goal is to stop the enemy from occupying territory and yet limit escalation.¹⁶⁵ In this scenario, the PLA's actions, its own analysts insist, should be strictly subordinated to higher-level orders and to the overall border-defense policy.¹⁶⁶

A second type of operation might involve responding to “armed harassment.” Here the key points of operations are gathering intelligence, warning of an attack, laying ambushes, attacking, blocking, and pursuing. The principle guiding the response should be, “Use firepower to strike; thoroughly eliminate.”¹⁶⁷

A third type envisions sealing off or blocking access to the border. According to PLA research on crisis operations, relevant scenarios might include refugees fleeing domestic turmoil and trying to cross China's border (e.g., a DPRK collapse scenario); terrorists, ethnic separatists, or religious extremists on both sides of the border trying to coordinate actions; or foreign “enemy forces” trying to enter the country to engage in provocations. The situation most likely to require careful coordination of diplomatic and military actions, however, would be an influx of refugees from neighboring countries, such as the DPRK. Here, according to PLA writing, the first goal would be to deter refugees from crossing the border, ideally putting them in camps on their home country's territory. If this were not possible, China would set up camps just inside its border, well separated from local populations. The response would require a clear division of responsibilities between the people's militia, the police, the PAP, and PLA units, all under the command of military region-level PLA staff but, owing to the political and diplomatic sensitivity of such a crisis, under the guidance of the national command authority (*tongshuai bu*). Should there be among the refugees foreign military and political officials fleeing persecution or hoping to reorganize once in China, the command authorities would identify and disarm them, separate them from regular refugees, cut them off from any contact with forces inside their home country, and wait for higher-level political instructions. If these military and political officials were allowed into China, they would be put in isolated supervision and control zones (*jianguan qu*), in part to prevent foreign forces (such as from the United States) from trying to extricate or eliminate them.¹⁶⁸

It is unclear how far the PLA has gone in choosing among and implementing these various options for command models, contingency plans, and operational procedures. The material cited here on handling border crises suggests, however, that such planning is certainly under way, as the sources go into considerable detail, down to the tactical level, about how to handle foreign forces “nibbling” at Chinese territory (e.g., India and various maritime claimants), refugees and retreating military remnant forces (e.g., from a collapsed DPRK), or terrorists

and ethno-religious separatists trying to cross the border (such as into Xinjiang or Tibet).¹⁶⁹

Chinese theorizing about international crisis management has evolved relatively quickly within the last two decades. It is well grounded in key military (CFISS, NDU, AMS, GLD) and civilian intelligence (CICIR) institutions. It accepts many

The traditional wartime command structures make it difficult in a crisis situation to coordinate with all the non-PLA units and organizations that are often involved.

principles first developed by American specialists. In addition, within the last ten years, both civilian and military decision makers appear to have been wrestling with how

to set up decision-making mechanisms, planning procedures, and institutions for operational coordination and control in a crisis. Crisis-management experts have leveled considerable criticism at the structural (and ideational) obstacles to efficient decision making, including a top-level decision process that is slow and generally not especially well staffed or supported by an interagency policy process.

That said, there is considerable tension between crisis-management principles, on the one hand, and some basic principles and orientations behind China's security decision making and military operations, on the other. These tensions should not be surprising, and not all are unique to the China case: crisis management does challenge, to some degree, traditional military operational thinking. It is likely that most militaries and national-security decision makers face similar tensions and contradictions. Crisis management requires willingness to settle for less-than-ideal outcomes. It requires restraint on issues that entail, by the definition of a crisis, high stakes. It requires very strict civilian oversight and control to ensure that military operational preferences do not undermine political goals. It requires a mind-set that is empathetic toward the concerns of the other side, and it requires decision-making procedures that ensure careful study of the other side's interests.¹⁷⁰ Related to empathy are institutionalized, high-level, protected channels of communication between political leaders and between military operators of the two sides.

China's crisis-management experts understand all these requirements and have often advocated them in their writings.¹⁷¹ The key will be whether top civilian and military leaders can be convinced to incorporate crisis-management principles and mechanisms into a leaner and more efficient civilian national security decision-making system and whether that system can minimize the impact of parochial military and paramilitary interests, intra-elite political competition, the ideology of territoriality, and Chinese exceptionalism. In this regard,

if crisis-management dialogues and mechanisms were given a more central and standard place in official U.S.-China military-to-military and political interactions, it is possible that the ideas of China's crisis-management experts would generate more attention at the top political levels in China. As a first step, China and its various interlocutors—the United States, Japan, the Philippines, and Vietnam—need to dialogue bilaterally at the track I (that is, formal and official) level about internal mechanisms and exercises, by which each side might discern more clearly the other's redlines. They need further to engage each other about ways of institutionalizing rapid and transparent cross-national communications between the relevant military commands (e.g., U.S. Pacific Command and the General Staff Department's Operations Department) and between political leaders (e.g., regularly exercised and used communication channels between the U.S. national security adviser and China's equivalent). Finally, they must address the training and procedures needed to enable political leaders to understand clearly, and thus control, their respective militaries' operational plans and rules of engagement.

NOTES

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1. Avery Goldstein, "First Things First: The Pressing Danger of Crisis Instability in U.S.-China Relations," *International Security* 37, no. 4 (Spring 2013), pp. 49–89, esp. the sources in footnote 2.
2. See Lonnie D. Henley, "Evolving Chinese Concepts of War Control and Escalation Management," in *Assessing the Threat: The Chinese Military and Taiwan's Security*, ed. Michael D. Swaine, Andrew N. D. Yang, and Evan S. Medeiros (Washington, D.C.: Carnegie Endowment for International Peace, 2007), pp. 85–110.
3. John F. Kennedy, Richard Nixon, and Condoleezza Rice, among other influential Americans, have all used this formulation. For a history of this usage in English, see "Crisis = Danger + Opportunity: The Plot Thickens," *Language Log* (blog), 27 March 2007, itre.cis.upenn.edu/~myl/languagelog/archives/004343.html.
4. See Victor Mair's explication at "Danger + Opportunity ≠ Crisis: How a Misunderstanding about Chinese Characters Has Led Many Astray," Pinyin.info, last revised September 2009, www.pinyin.info/chinese/crisis.html. See also Li Xiaodong et al., eds., *Chaoxian bandao weiji guanli yanjiu* [Research on Crisis Management on the Korean Peninsula] (Beijing: Academy of Military Science Press, 2010), pp. 95–96; and Chu Xiaobo, "Dangtian Zhong Ri guanxi yu wajiao weiji guanli" [Current Sino-Japanese Relations and Diplomatic Crisis Management], *Dongbeiyu xuekan* [Journal of Northeast Asian Studies], no. 7 (July 2013), p. 26.
5. See Yu Qiaohua, *Junshi weiji lun* [On Military Crises] (Beijing: National Defense Univ., 2008), pp. 7, 148–49; and Wang Yong and Chen Senlin, *Guojia anquan weiji guanli yanjiu* [National Security Crisis-Management

- Research] (Beijing: National Defense Univ. Press, 2011), p. 15. Another authoritative source, a study of crisis management by NDU scholars, does in fact argue that a crisis includes “opportunity” (*jihui*). This view appears to be a minority among analysts of security crises, but it is justified on the basis of dialectics; Ding Bangquan, Tang Yongsheng, and Yu Manshu, eds., *Guoji weiji guanli* [International Crisis Management] (Beijing: National Defense Univ. Press, 2004), pp. 2–3.
6. Yang Mingjie, ed., *Guoji weiji guanli gailun* [Survey of International Crisis Management] (Beijing: Current Affairs, 2003), pp. 4–5.
 7. Pan Guang, ed., *Dangdai guoji weiji yanjiu* [Research on Contemporary International Crises] (Beijing: China Academy of Social Sciences, 1989), p. 1. This formulation is picked up by other authors. See, for instance, Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece* [National Security Crisis Decision Making] (Beijing: Current Affairs, 2006), p. 14.
 8. Liu Junbo, “Shixi di san fang guoji weiji guanli de tiaojianxing” [Analyzing the Conditions of Third-Party International Crisis Management], *Waijiao Pinglun* [Foreign Affairs Review], no. 12 (2007), pp. 44–49; Yu Qiaohua, *Junshi weiji lun*, p. 1. It is possible that this in fact reflects reading of Richard Ned Lebow’s *Between Peace and War: The Nature of International Crises*. See also Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 24; Cheng Xiaodong and Xu Xin, “Junshi weiji kongzhi xingdong fangfa wenti yanjiu” [Research on Methodological Question in Military Crisis-Control Activities], *Guofang* [National Defense], no. 9 (2007), p. 27; and Xu Hui, *Guoji weiji guanli lilun yu anli jixi* [Analysis of International Crisis-Management Theory and Case Studies] (Beijing: National Defense Univ. Press, 2011), p. 17.
 9. Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi* [Border Crises Emergency Response and Control] (Beijing: Academy of Military Science, 2013), p. 11. As I discuss in more detail later, this conceptualization helps justify the idea of nonwar military actions as a category of military activity distinct from traditional warfare.
 10. Yu Qiaohua, *Junshi weiji lun*, pp. 9–10.
 11. Yang Mingjie, *Guoji weiji guanli gailun*, pp. 3–4.
 12. Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, p. 23.
 13. Indeed, one finds frequent citations to such major figures and coauthors in American crisis-management research as Edward Azar, Glenn Snyder and Paul Diesing, Michael Brecher and Jonathan Wilkenfeld, William Zartman, Alexander George, Ned Lebow, Charles Hermann, Ted Gurr, and Graham Allison, among others.
 14. See Yu Qiaohua, *Junshi weiji lun*, pp. 4–5, 11–12; Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 14–15; Wang Jinhui, “Shilun guoji weiji guanli moshi” [On Models of International Crisis Management], *Xuexi yu tansuo* [Study and Exploration], no. 1 (2009), pp. 86–88; Wu Xinbo, “Managing Crisis and Sustaining Peace between China and the United States,” *United States Institute of Peace Peaceworks*, no. 61 (April 2008), p. 5; Yang Mingjie, *Guoji weiji guanli gailun*, p. 5; Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 12; Yang Jiemian, ed., *Guoji weiji fahua yu Zhong Mei gongtong yingdui* [The Spread of International Crises and Sino-U.S. Joint Responses] (Beijing: Current Affairs, 2010), p. 17; Xu Manshu, *Guoji weiji yujing* [International Crisis Early Warning] (Beijing: Current Affairs, 2008), p. 21; Zhang Tuosheng, “Zhongguo guoji junshi anquan weiji xingwei yanjiu” [Research on China’s Behavior in International Military Security Crises], *Shijie jingji yu zhengzhi yanjiu* [Research in International Economics and Politics], no. 4 (2011), p. 104; Chu Xiaobo, “Dangtian Zhong Ri guanxi,” pp. 22–23; and Xu Hui, *Guoji weiji guanli lilun*, p. 6.
 15. See Yang Mingjie, *Guoji weiji guanli gailun*, pp. 6–7.
 16. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 17–22. For an application of these criteria to analyze a potentially explosive real-world issue see the 2010 AMS study on crisis management on the Korean Peninsula in Li Xiaodong et al., *Chaoxian bandao weiji guanli yanjiu*, pp. 84–88.
 17. Yu Qiaohua, *Junshi weiji lun*, pp. 16–18.
 18. Xiao Tianliang, ed., *Zhanlue xue* [Science of Strategy] (Beijing: National Defense Univ. Press, 2015), p. 105.
 19. Wang Yong, *Xiandai junshi weiji* [Modern Military Crises] (Beijing: National Defense Univ. Press, 2005), p. 6.

20. Yu Qiaohua, *Junshi weiji lun*, pp. 12–13.
21. *Ibid.*, pp. 13–14.
22. *Ibid.*, pp. 41–49; Wang Yong, *Xiandai junshi weiji*, pp. 6–11. See Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 26–27; Chen Xiancai, *Tai Hai weiji guanli moshi yanjiu* [Research on the Taiwan Strait Crisis-Management Model] (Beijing: Jiu Zhou, 2010), pp. 106, 110; Zhang Tuosheng, “Zhongguo guoji junshi anquan weiji,” pp. 119–20; Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 33; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 162–66, 191–92; Li Xiaodong et al., *Chaoxian bandao weiji guanli yanjiu*; Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 107; and Xiao Tianliang, *Zhanlue xue*, p. 105.
23. Yu Qiaohua, *Junshi weiji lun*, pp. 93–94. A recent Academy of Military Science study on strategy suggests that cyber crises may become more frequent. Given their cost-effectiveness (low cost in terms of personnel and equipment, high value in terms of debilitation of information-centric enemies) compared to other forms of conflict, cyber attacks may occur more readily. See Academy of Military Science, *Zhanlue xue* [Science of Military Strategy] (Beijing: Military Strategy Research Department, 2013), p. 191.
24. In clear reference to China, NDU’s Wang Yong and Chen Senlin note that as a rising power takes on more responsibilities (e.g., peacekeeping, humanitarian assistance) or expands its energy sources, it generates more contact points with other actors that could lead to conflict (e.g., threats to nationals living abroad, threats to energy shipments, the possibility of being pulled into conflicts during humanitarian activities). Under these conditions the military instrument becomes more important in crisis management. Wang Yong and Chen Senlin, *Guojia anquan weiji*, pp. 33–34, 216.
25. See Yang Jiemian, *Guoji weiji fahua*, p. 104, and Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 87–89.
26. Yang Jiemian, *Guoji weiji fahua*, p. 95; Chen Xiaoyong, “Guoji weiji guanli jiben wenti tantao” [Discussion of Basic Issues in International Crisis Management], *Shijie jingji yu zhengzhi* [World Economics and Politics], no. 4 (2012), p. 110.
27. For an early statement of some of these measures, see Gu Dexin, “Guoji chongtu: guoji guanxi zhong de maodun yu duikang” [International Conflict: Contradictions and Confrontation in International Relations], in *Guoji zhanlue xue gailun* [On International Strategic Studies], ed. Gao Jinxi and Gu Dexin (Beijing: National Defense Univ. Press, 1995), pp. 170–71. For examples of different mechanisms, see also Guo Xuetang, “Guoji weiji guanli yu juece moshi fenxi” [Analysis of International Crisis Management and Decision-Making Models], *Xiandai guoji guanxi* [Contemporary International Relations], no. 8 (2003), pp. 29–34; Xu Haifeng, “Lengzhan hou Zhong Mei weiji chuli jizhi de guanli yu goujian” [Post-Cold War Management and Construction of Sino-U.S. Crisis Handling Mechanisms], *Qianyan* [Frontline], no. 2 (2008), pp. 154–58; Xia Liping, “Mei Guo guanyu weiji guanli de lilun yu shijian—yi Zhong Mei guanxi wei li” [U.S. Crisis-Management Theory and Practice: The Example of Sino-U.S. Relations], *Meiguo yanjiu* [American Studies], no. 2 (2003), pp. 73–86; and Gao Xintao, “Weiji guanli shijiao xia de Tai Hai weiji tanxi” [Analysis of Crisis Management from the Perspective of Taiwan Strait Crises], *Taiwan yanjiu jikan* [Taiwan Research Quarterly], no. 3 (2007), pp. 10–18.
28. Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 154.
29. See also Yu Qiaohua, *Junshi weiji lun*, for his list, pp. 115–21; Li Xiaodong et al., *Chaoxian bandao weiji guanli yanjiu*, p. 100, for their list; and Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 361–62.
30. Yang Mingjie, *Guoji weiji guanli gailun*, p. 5.
31. Michael Swaine and Zhang Tuosheng, *Managing Sino-American Crises: Case Studies and Analysis* (Washington, D.C.: Carnegie Endowment for International Peace, 2006). In the interests of transparency, I should note that I have been involved in this project since its inception.
32. Interviews with various Chinese crisis-management and foreign policy officials, Beijing, 2011. Yang Jiemian believes that the Swaine and Zhang book was an important piece of research on Sino-U.S. crisis management; see Yang Jiemian, *Guoji weiji fahua*, p. 26; Wang Yong, *Xiandai junshi weiji*, p. 4; and Chu Xiaobo, “Dangtian Zhong Ri guanxi,” p. 26.

33. Hu Ping, *Guoji chongtu fenxi yu weiji guanli yanjiu* [International Conflict Analysis and Crisis-Management Research] (Beijing: Yiwen, 1993), pp. 167–73.
34. Yang Mingjie, *Guoji weiji guanli gailun*, p. 255. Some of these were later echoed in an AMS study of Korean Peninsula crises co-edited by Sr. Col. Li Xiaodong. He and his collaborators distill these principles to five: limit goals, maintain communications, signal clearly, avoid provocations that leave the other no room to retreat, and handle issues separately. See Li Xiaodong et al., *Chaoxian bandao weiji guanli yanjiu*, pp. 100–102.
35. For one version, see Michael D. Swaine, “Crisis Management: Confidence and Security Building Measures” (presentation, Beijing, 5 November 2013), available at csis.org/files/attachments/131104_Session8_MSwaine.pdf.
36. For an early statement of many of these principles, see Gu Dexin, “Guoji chongtu,” pp. 172–77. See also Wang Yong, *Xiandai junshi weiji*, pp. 26–27; Yu Qiaohua, *Junshi weiji lun*, pp. 115–23; Wei Zhijiang and Li Yanping, “Shilun Chaoxian bandao di er ci weiji yu weiji guanli” [Preliminary Thoughts on the Second Nuclear Crisis on the Korean Peninsula and Crisis Management], *Shijie jingji yu zhengzhi* [World Economics and Politics], no. 3 (2006), pp. 53–58; Chen Xiaoyong, “Guoji he weiji de kongzhi yu guanli—Nan Ya he weiji anli yanjiu” [Control and Management of Nuclear Crises: Research on the South Asia Case], *Nanya yanjiu* [South Asia Studies], no. 3 (2010), pp. 17–29; Xia Liping, “Mei Guo guanyu weiji guanli de lilun yu shijian,” pp. 73–86; Gao Xintao, “Weiji guanli shijiao xia de Tai Hai weiji tanxi,” pp. 10–18; Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 105–13; Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 53–54, 182; Cheng Xiaodong and Xu Xin, “Junshi weiji kongzhi,” pp. 28–29; Yang Mingjie, *Guoji weiji guanli gailun*, p. 247; Xu Hui, *Guoji weiji guanli lilun*, pp. 59–65; Lin Yi, “Zhongwai junshi weiji guanli yanjiu de lishi huigu” [Review of the History of Military Crisis-Management Research outside China], *Junshi lishi* [Military History], no. 3 (2012), p. 17; Chu Xiaobo, “Dangtian Zhong Ri guanxi,” p. 26; Chen Xiaoyong, “Guoji weiji guanli,” pp. 111–12; Wang Yong and Chen Senlin, *Guojia anquan weiji*, pp. 35–38; and Xiao Tianliang, *Zhanlue xue*, pp. 112, 114.
37. Wang Yong, *Xiandai junshi weiji*, p. 26.
38. Yu Qiaohua, *Junshi weiji lun*, p. 115.
39. Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, p. 111.
40. See Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 138–39, 179. On the strategic use of international law for winning hearts and minds internationally and domestically, see Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 158.
41. See Lu Hui, ed., *Jundui chuzhi tufa shijian xingdong yanjiu* [Research on Actions by the Military to Handle Sudden Incidents] (Beijing: Tide, 2009), pp. 27–28.
42. Wang Yong, *Xiandai junshi weiji*, p. 26. This list is repeated in Cheng Xiaodong and Xu Xin, “Junshi weiji kongzhi,” p. 29.
43. Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 156.
44. Yu Qiaohua, *Junshi weiji lun*, p. 115. Yu’s list, interestingly enough, comes close to what senior Chinese officials have since 2009 defined as China’s core interests. On China’s core interests, see Michael D. Swaine, “China’s Assertive Behavior Part One: On ‘Core Interests,’” Hoover Institution *China Leadership Monitor*, no. 34 (February 2011).
45. Yu Qiaohua, *Junshi weiji lun*, p. 102.
46. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 309–11. See also GSD officer Lin Yi’s comment on the centrality of this concept, “Zhongwai junshi weiji guanli,” p. 15.
47. Discussion with PLA-connected crisis-management experts, June 2011. See also Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 162.
48. Zhu Rongji, *2002 Government Work Report*, available at www.gov.cn/test/2006-02/16/content_201164.htm. For a history of the concept of “sudden incidents” in Chinese politics, see Zhong Kaibin, “Tufa shijian gainian de lai yuan yu yanbian” [Origins and Evolution of the Concept of Sudden Incidents], *Shanghai xingzheng xueyuan xuebao* [Shanghai Administration Institute Journal] 13, no. 5 (September 2012), p. 27.
49. Yang Jiemin, *Guoji weiji fahua*, p. 71.
50. Lu Hui, *Jundui chuzhi tufa shijian*, pp. 128–33, 151.

51. For an explicit discussion of the evolution of U.S. concepts of MOOTW, see *ibid.*, pp. 160–69.
52. *Ibid.*, p. 175.
53. Cheng-Yu Lee, “Zhonggong fei zhanzheng junshi xingdong de juti gainian yu neng li pouxi” [A Study of the Specific Concepts and Capabilities for PRC Military Operations Other than War], *Fuxinggan xuebao* [ROC National Defense University Political Warfare College], no. 100 (2010), p. 167.
54. Lu Hui, *Jundui chuzhi tufa shijian*, p. 176.
55. For a history of the PLA’s development of “nonwar military actions,” see Taylor Fravel, “Economic Growth, Regime Insecurity, and Military Strategy: Explaining the Rise of Non-combat Operations in China,” *Asian Security* 7, no. 3 (2011), pp. 1–24.
56. The list appears to be an authoritative PLA-wide typology. See Lu Hui, *Jundui chuzhi tufa shijian*, p. 18; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, p. 3; Tian Yixiang, “Junshui zai yingji guanli zhong de zhongyao zuoyong ji qi fahui” [The Important Effect, and Bringing into Play, of the Military in Emergency Management], *Zhongguo yingji guanli* [China Emergency Response], no. 2 (2007), p. 31 (Tian is the former director of the GSD’s Emergency Management Office); and Dong Qiang, “Qianghua zhongda fei zhanzheng junshi xingdong baodao de quanweixing” [Strengthening the Authoritativeness of Important Reports on Nonwar Military Actions], *Junshi jizhe* [Military Journalist], no. 6 (June 2010), pp. 13–14. The PLA-specific *Overall Contingency Plans for the Military’s Handling of Sudden Incidents* includes limited military conflicts with other states; see Liu Shaowen, “Budui chuzhi tufa shijian yingji nengli yanjiu” [Study of the Military’s Emergency Response Capability When Handling Sudden Incidents] (master’s thesis, National Defense Science and Technology University, Changsha, 2008), pp. 9, 19, 28. While these subtypes do not all map directly onto all the purposes of MOOTW as developed by the U.S. military, there is sufficient overlap to suggest that MOOTW is an inspiration for NWMA and the incorporation of crisis management within it. MOOTW, for instance, includes deterrence signaling, crisis response, support for civilian authorities in emergency response situations, some counterterrorism operations, counterinsurgency operations, and peacekeeping, among many other activities of types similar to those within the PLA’s NWMA. For an early statement of U.S. MOOTW, see U.S. Defense Dept., *Joint Doctrine for Military Operations Other than War*, Joint Publication 3-07 (Washington, D.C.: 16 June 1995).
57. See Lu Hui, *Jundui chuzhi tufa shijian*, pp. 102–103.
58. *Ibid.*, p. 26.
59. *Ibid.*, pp. 27–28; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 7–8.
60. For a more or less explicit recognition of this point, see Lu Hui, *Jundui chuzhi tufa shijian*, pp. 16, 24, 101, 152.
61. *Ibid.*, p. 276.
62. Xu Manshu, *Guoji weiji yujing*.
63. Interview with Chinese crisis-management expert, Beijing, 2011.
64. Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 32, 109.
65. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 98.
66. *Ibid.*, p. 182.
67. See the GSD officer Lin Yi’s critique of the research, “Zhongwai junshi weiji guanli,” p. 17.
68. Michael D. Swaine and M. Taylor Fravel, “China’s Assertive Behavior Part Two: The Maritime Periphery,” Hoover Institution *China Leadership Monitor*, no. 35 (September 2011).
69. Xu Manshu, *Guoji weiji yujing*, p. 2; Pan Guang, *Dangdai guoji weiji yanjiu*, pp. 2–4; Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 34; Chen Xiancai, *Tai Hai weiji guanli*, p. 101. Some of the earliest crisis-management work also predicted that with globalization and integration, plus the rapid development of military technologies, there would be increasing tests of comprehensive national power between states.
70. Yang Jiemian, *Guoji weiji fahua*, p. 76.
71. The ICB codes crises using the standard criteria in the literature: interstate conflicts where perceived important interests are at stake, those where the perceived probability

- of escalation to major violence is substantial, and those where decisions must be made under severe time pressure. For more on the coding rules for the ICB, see “ICB Data Collections,” *University of Maryland Center for International Development and Conflict Management*, available at www.cidcm.umd.edu/icb/data/. The ICB is the primary quantitative data set used in the study of interstate crises.
72. Manjari Chatterjee Miller, *Wronged by Empire: Post-imperial Ideology and Foreign Policy in India and China* (Palo Alto, Calif.: Stanford Univ. Press, 2013).
 73. One should treat these data with some caution. The number of cases is relatively small: given a total of fourteen crises since the founding of the PRC, the inferences about frequency are unstable and susceptible to the addition or removal of a small number of cases.
 74. Cheng Xiaodong and Xu Xin, “Junshi weiji kongzhi,” p. 29.
 75. Yang Jiemian, *Guoji weiji fahua*, pp. 41–42.
 76. Conversations with CFISS specialists, 2000; Yang Jiemian, *Guoji weiji fahua*, p. 9; Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 34, 96, 324–37.
 77. Yang Mingjie, *Guoji weiji guanli gailun*, p. 2.
 78. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 29.
 79. Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 47, 345–46. The authors suggest that crises can also reduce societal tolerance for separatism, a domestic concern of particular relevance to the PRC. The blurring of the boundaries between external and internal is consistent with the apparent consensus in the PLA, discussed above, that interstate and military crisis management can be placed in the broader category of “sudden incidents.” See Lu Hui, *Jundui chuzhi tufa shijian*. See also Yang Jiemian, *Guoji weiji fahua*, p. 84.
 80. Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 245, 349. That said, one crisis-management expert suggests that China should use the media to mobilize the domestic population’s sense of “ethno-national righteousness” (*minzu zhengyi*) to create psychological pressure on the enemy. See Yu Qiaohua, *Junshi weiji lun*, p. 139.
 81. James and Zhang argue that in the first stage of decision making in crises, Chinese leaders are particularly sensitive to averting losses in the political realm (e.g., losses of legitimacy, party power, and personal power). They argue that this is a common response and not unique to Chinese crisis management. Patrick James and Enyu Zhang, “Chinese Choices: A Poliheuristic Analysis of Foreign Policy Crises, 1950–1996,” *Foreign Policy Analysis* 1, no. 1 (March 2005), pp. 31–54.
 82. Yang Mingjie, *Guoji weiji guanli gailun*, pp. 15–16, 25. See also Wang Yong, *Xiandai junshi weiji*, p. 25; Yu Qiaohua, *Junshi weiji lun*, pp. 137–38; and Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 166–67.
 83. Yang Jiemian, *Guoji weiji fahua*, p. 112.
 84. Cheng Xiaodong and Xu Xin, “Junshi weiji kongzhi,” p. 29.
 85. Yang Jiemian, *Guoji weiji fahua*, pp. 112–13.
 86. See “U.S.-China Public Perceptions Opinion Survey 2012,” *Committee of 100*, survey committee100.org/; and “Still the ‘Other?’ Public Attitudes toward Chinese and Asian Americans,” *Committee of 100*, survey committee100.org/C100_2009Report.pptx.
 87. Yang Jiemian, *Guoji weiji fahua*, p. 100. There is some criticism of a tendency in China’s crisis-management practice to obstruct clear expression of interest. See Xu Haifeng, “Lengzhan hou Zhong Mei weiji,” pp. 154–58.
 88. See Chen Xiancai, *Tai Hai weiji guanli*, p. 105.
 89. See Wu Xinbo, “Managing Crisis,” p. 24.
 90. My thanks to Alison Kaufman for this last point.
 91. See, for instance, Yu Qiaohua, *Junshi weiji lun*, p. 102; and Ding Bangquan, Tang Yongsheng, and Yu Manshu, *Guoji weiji guanli*, pp. 94–96. In a classic case of self-stereotyping, Xi Jinping has stated that Chinese people do not have the “genes” for invasion; see “Xi: There Is No Gene for Invasion in Our Blood,” *China Daily*, 16 May 2014, available at www.china.org.cn/china/2014-05/16/content_32406301.htm.
 92. Mina Cikara et al., “Their Pain Gives Us Pleasure: How Intergroup Dynamics Shape Empathic Failures and Counter-empathic Responses,” *Journal of Experimental Social Psychology* 55 (2014), pp. 110–25.

93. Mina Cikara and Jay J. Van Bavel, "The Neuroscience of Intergroup Relations: An Integrative Review," *Perspectives on Psychological Science* 9, no. 3 (2014), pp. 245–74; Cikara et al., "Their Pain Gives Us Pleasure," pp. 110–25.
94. On the foreign policy effects of American exceptionalism see Donald R. Kinder and Cindy D. Kam, *Us against Them: Ethnocentric Foundations of American Opinion* (Chicago: Univ. of Chicago Press, 2010).
95. Yu Qiaohua, *Junshi weiji lun*, pp. 153–54.
96. Lin Yi, "Zhongwai junshi weiji guanli," p. 18.
97. Back in 1995, NDU crisis-management expert Gu Dexin wrote that it was important for crisis stability that one side allow the other some benefit. Gu Dexin, "Guoji chongtu," p. 173.
98. Yang Jiemian, *Guoji weiji fahua*, p. 106.
99. Cheng Xiaodong and Xu Xin, "Junshi weiji kongzhi," p. 28.
100. I benefited from Ron Christman's analysis of the concept of "overall situation" in "How Beijing Evaluates Military Campaigns: An Initial Assessment," in *The Lessons of History: The Chinese People's Liberation Army at 75*, ed. Laurie Burkitt, Andrew Scobell, and Larry M. Wortzel (Carlisle Barracks, Pa.: U.S. Army War College Strategic Studies Institute, 2003).
101. See, for instance, the discussion of the value of appropriate levels of ambiguity for nuclear deterrence in the Academy of Military Science, *Zhanlue xue*, p. 173. In conversations with PLA officers over the years, when the concept of asymmetric transparency comes up I have pointed out that China is both the weaker state vis-à-vis the United States and the stronger vis-à-vis smaller countries around its periphery. Thus, by the logic of asymmetrical transparency China should be more transparent in relation to these smaller states. On two occasions fifteen years apart my interlocutors indicated that they had never thought about this dilemma before. In the context of the United States as a reference group, for some in the PLA it is apparently not common to think empathetically about weaker states.
102. Interview with CICIR official, June 2011. See also PLA political work officer Zhou Yang's comment that in maritime disputes there is a contradiction between China's moderate position on shelving disputes and jointly developing the region, on the one hand, and regional fears of Chinese power, on the other. Zhou Yang, "Guoji chuanbo celue de yunyong—yi Zhong Mei jianchuan duizhi shijian wei yangben" [Employing International Broadcast Tactics: Using the Example of Sino-U.S. Warship Confrontation], *Xinwen qianshao* [News Outpost], no. 12 (2009), p. 54.
103. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 193. See also Xiao Tianliang, *Zhanlue xue*, p. 112.
104. It may be that one determining condition is whether Chinese leaders want to communicate resolve more than they want to de-escalate a crisis. This would suggest that in crises related to territory and other "core interests," or crises where the other side escalates first, Chinese leaders will prefer clarity over ambiguity.
105. Thanks to Lonnie Henley for this point.
106. Xu Hui, *Guoji weiji guanli lilun*, pp. 48–58. Xu's listed modes of coercive diplomacy are drawn largely from the works of Alexander George.
107. Thomas J. Christensen, "Windows and War: Changes in the International System and China's Decision to Use Force," in *New Approaches to China's Foreign Relations*, ed. Alastair Iain Johnston and Robert Ross (Stanford, Calif.: Stanford Univ. Press, 2006).
108. NDU crisis-management expert Gu Dexin seemed to recognize this tension in his 1995 work "Guoji chongtu," p. 173.
109. A CICIR official has said that the concept of *zaoshi* is not language used at the top levels of civilian decision making but is PLA language; interview, June 2011. For a helpful analysis of the concept, see Forrest E. Morgan et al., *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica, Calif.: RAND, 2008), pp. 54–58.
110. On the concept of "war control," see Henley, "Evolving Chinese Concepts."
111. Xiao Tianliang, *Zhanlue xue*, pp. 128–31.
112. Goldstein argues that some PLA writing on the use of ballistic missiles as "shots across the bow" at U.S. naval forces underestimates the escalatory nature of such actions, particularly in the face of American incentives to go after Chinese C4ISR (i.e., command, control, communications, computer systems, intelligence,

- surveillance, and reconnaissance). Goldstein, "First Things First," pp. 64–65, 68.
113. See Yu Jishun, ed., *Di er pao bing zhan yi xue* [Second Artillery Campaign Theory] (Beijing: PLA, 2004), pp. 282–96; Wang Wenrong, ed., *Zhanlue xue* [Science of Strategy] (Beijing: National Defense Univ. Press, 1999), p. 362; Wang Jinhui, "Shilun guoji weiji," pp. 876–88; and Lu Hui, *Jundui chuzhi tufa shijian*, p. 104.
 114. See, for instance, former deputy commander of the Second Artillery Zhao Xijun's discussion of stratagem and deterrence, *She zhan: daodan weishe zongheng tan* [Deterrence and War: Talking about Missile Deterrence] (Beijing: National Defense Univ. Press, 2003), p. 33. See also Academy of Military Science, *Zhanlue xue*, p. 173.
 115. Li Xiaodong et al., *Chaoxian bandao weiji guanli yanjiu*, p. 101. This tactic is straight out of Sun Zi's *Art of War*—act in ways to get the adversary to expose its strategy while hiding your own.
 116. See Gao Xintao's claim that measured hard-line foreign policy has had successes—for example, bombarding Kuomintang forces in 1958 while avoiding hitting U.S. forces and establishing credible deterrence in the 1996 Taiwan crisis. Gao Xintao, "Weiji guanli shijiao xia de Tai Hai weiji tanxi," pp. 10–18.
 117. See Wang Jinhui, "Shilun guoji weiji," p. 88. This is not unique to PLA thinkers, of course. It is a standard realpolitik claim about the deterrence effects of escalation.
 118. Yu Qiaohua, *Junshi weiji lun*, pp. 128–30.
 119. Ibid., p. 155. See also Chen Xiancai's claim that in various Taiwan crises, including those of 1954 and 1996, China successfully used a limited, though risky, escalation process to send credible signals and manage the crisis; Chen Xiancai, *Tai Hai weiji guanli*, pp. 148, 163.
 120. Wang Yong, *Xiandai junshi weiji*, p. 21.
 121. Chen Zhou, "Fazhan Zhongguo tese de zhanlue weishe lilun" [Develop Strategic Deterrence Theory with Chinese Characteristics], in *Mianxiang weilai de guojia anquan yu guofang* [National Security and National Defense Face the Future], ed. Chen Zhou (Beijing: National Defense Univ. Press, 2009), pp. 214–15.
 122. Yu Qiaohua, *Junshi weiji lun*, p. 117.
 123. Yang Jiemian, *Guoji weiji fahua*, p. 99. Chen Xiancai concludes that China will be more reactive and passive in its crises with the United States owing to this asymmetry in hard power; Chen Xiancai, *Tai Hai weiji guanli*, p. 104.
 124. On the role of computer-network operations in PLA operational concepts, see James Mulvenon, "PLA Computer Network Operations: Scenarios, Doctrine, Organizations, and Capability," in *Beyond the Strait: PLA Missions Other than Taiwan*, ed. Roy Kamphausen, David Lai, and Andrew Scobell (Carlisle Barracks, Pa.: U.S. Army War College Strategic Studies Institute, 2009), pp. 253–85; Larry Wortzel, *The Chinese People's Liberation Army and Information Warfare* (Carlisle Barracks, Pa.: U.S. Army War College Strategic Studies Institute, 2014); and Academy of Military Science, *Zhanlue xue*, pp. 130, 188–93.
 125. On the low confidence in attribution among PLA cyber specialists see Academy of Military Science, *Zhanlue xue*, pp. 190, 193; and Lü Jinghua, "Guoji wuanguo junking wenti yanjiu" [A Study of International Arms Control in Cyberspace], *Zhongguo junshi kexue* [China Military Science], no. 5 (2014), p. 153. This asymmetry in confidence in attribution was clear from my separate interactions with U.S. cyber experts and Chinese military cyber experts in 2013–15.
 126. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 344.
 127. Cheng Xiaodong and Xu Xin, "Junshi weiji kongzhi," p. 28.
 128. Wu Xinbo, "Managing Crisis," p. 25; conversation with academic specialist in Chinese foreign policy, March 2011.
 129. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 339; Lu Hui, *Jundui chuzhi tufa shijian*, p. 123.
 130. Lu Hui, *Jundui chuzhi tufa shijian*, p. 123. It is unclear whether these criticisms refer to the high-level leading-small-group system in the party, or to the use of temporary leading small groups in civilian organs below the center, or to the use of a temporary leading small group in the GSD for handling crises, or all of the above.
 131. Zhang Tuosheng, "Zhongguo guoji junshi anquan weiji," pp. 115–16.

132. Comments by Chinese crisis-management expert, June 2011. This concern is implied in the CICIR analysis of the EP-3 incident. While the analysis explicitly refers to U.S. decision making, the episode would seem, reading between the lines, to be a lesson for China as well—implying that in a crisis there is a need for a permanent body (such as the National Security Committee) to process information before decision makers choose options. Yang Mingjie, *Guoji weiji guanli gailun*, p. 253.
133. Yang Jiemian, *Guoji weiji fahua*, pp. 90–91.
134. Nan Li makes the insightful point that military professionalism may in fact have increased the difficulty of coordinating civilian and military institutions. Professionalization strengthens the notion within the PLA that it is the primary and authoritative source of expertise on national-security issues. See Nan Li, *Chinese Civil-Military Relations in the Post-Deng Era: Implications for Crisis Management and Naval Modernization*, China Maritime Study 4 (Newport, R.I.: Naval War College Press, January 2010). For a discussion of foreign-policy and national-security coordination problems, see David M. Lampton, “Xi Jinping and the National Security Commission: Policy Coordination and Political Power,” *Journal of Contemporary China* (2015), doi: 10.1080/10670564.2015.1013366; and Linda Jakobson, *China’s Unpredictable Maritime Security Actors* (Sydney, NSW, Austral.: Lowy Institute for International Policy, December 2014), available at www.lowyinstitute.org/.
135. Guo Xuetang, “Gujie weiji guanli,” p. 30.
136. Wang Yong, *Xiandai junshi weiji*, p. 36; Wang Yong and Chen Senlin, *Guojia anquan weiji*, pp. 193, 205.
137. Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, p. 338. On the importance of clear lines of authority in crisis management, see Yang Mingjie, *Guoji weiji guanli gailun*, p. 18.
138. Yang Mingjie, *Guoji weiji guanli gailun*, p. 17. In 2004 the GSD Operations Department set up an emergency-response office. It currently has about twenty people and coordinates crisis management of all types between PLA and non-PLA units. See Dennis Blasko, “U.S. and Chinese Approaches to Peacekeeping and Stability Operations” (unpublished paper, 2011).
139. Yang Mingjie, *Guoji weiji guanli gailun*, pp. 22–25.
140. Yu Qiaohua, *Junshi weiji lun*, pp. 98–99.
141. The following draws from Zhao Zilu and Xian Fengli, *Guojia anquan weiji juece*, pp. 338–56, as well as from Wang Yong and Chen Senlin, *Guojia anquan weiji*, pp. 168, 194–99.
142. These proposals are interesting because of what they reveal about the concerns of PLA crisis-management experts about decision-making processes.
143. Within the crisis-management-expert community there are persistent complaints about insufficient information flows to the PBSC, insufficient checks on the accuracy of information coming from self-interested actors, and the ad hoc, case-by-case distribution of information and intelligence. The military in particular has been accused of providing self-serving and inaccurate intelligence and of discounting the credibility of nonmilitary intelligence and analysis. See Wu Xinbo, “Managing Crisis,” p. 21; Xu Manshu, *Guoji weiji yujing*, p. 268; Lu Hui, *Jundui chuzhi tufa shijian*, pp. 125–26; and interview with civilian crisis-management specialist, June 2011.
144. Interview with senior analyst in the nuclear weapons and arms control community, June 2011.
145. In the Third Plenum communiqué, the announcement of the CNSC came in paragraph 50, which was primarily about public security, domestic stability, and legitimacy issues. Paragraph 50 fell under section 13, which discussed social management. Some PLA commentators—perhaps reflecting the prerogatives of the PLA on national security issues—have argued that the new CNSC will handle nontraditional security issues, whereas the existing CMC will continue to be in charge of traditional ones. See, for instance, NDU senior colonel Gong Fangbin, comments, available at news.sina.com.cn/c/2014-01-24/181229337580.shtml. A commentator from the Ministry of State Security’s International Relations University claims that, judging by the composition of the committee, it will focus primarily on internal security. See Lin Hongyu, “Xin guojia anquan guan si da neihe” [Four Major Kernels of the New National Security Concept], *Renmin luntan* [People’s Forum], no. 6 (2014), pp. 21–22.

- In contrast, Xi Jinping's own remarks at the first meeting of the CNSC, in April 2014, indicated a balance between traditional and nontraditional, internal and external security.
146. For crisis management, see comments by People's University professor Jin Canrong, in Chen Jianli, "China's International Security Situation Is Complicated but Has Not Deteriorated," *Nanfang Dushi Bao*, 1 December 2013, history.news.qq.com/a/20131201/001412.htm.
 147. Interviews in Beijing, 2014, and Taipei, 2015.
 148. My thanks to Lonnie Henley for his insights about decision making. The official designated to be in charge of day-to-day functioning of the CNSC is Cai Qi, who has no obvious experience in foreign policy or national security, though he is considered smart and talented, and demands high standards for staff members of the NSC. Cai worked for Xi Jinping when Xi was in Zhejiang. He is said to have ministerial rank; that would not normally be sufficient to overrule the CMC's military leaders, who are vice-chairs, so he would have to use his personal relationship (and his institution's relationship) with Xi in order to "pull rank"; interviews, 2014, 2015. For additional details on the CNSC, see also Andrew S. Erickson and Adam P. Liff, "Installing a Safety on the 'Loaded Gun'? Recent Chinese Domestic Institutional Reforms, the New National Security Commission, and Sino-Japanese Crisis (In)Stability," *Journal of Contemporary China* (forthcoming).
 149. For the old NSLSG, Ma Haoliang, "National Security Committee Begins Operation under Leadership of General Office of CPC Central Committee: Li Zhanshu, Wang Huning Respectively Head National Security Office and Reform Office," *Ta Kung Pao*, 7 March 2014, available at news.takungpao.com/paper/q/2014/0307/2330514.html. See also Lampton, "Xi Jinping and the National Security Commission," p. 13.
 150. Zhong Kaibin, "Guojia anquan weiyuanhui yunzuo de guoji jingyan, zhineng dingwei yu Zhongguo celue" [International Experiences, Functional Status in the Operation of National Security Council and China's Strategy], *Gaige* [Reform], no. 3 (2014), pp. 13–14.
 151. "Xi Jinping: Adhere to the Country's Overall Security Concept of National Security Road with Chinese Characteristics," *Xinhua*, 15 April 2014, available at news.xinhuanet.com/politics/2014-04/15/c_11110253910.htm.
 152. On 1 July 2015, the National People's Congress adopted a National Security Law that is still very ambiguous as to the formal name and functions of the CNSC. For the text of the law, see www.81.cn/jwgz/2015-07/01/content_6565719_5.htm.
 153. Interview with Chinese civilian crisis-management expert, Beijing, 2011.
 154. Wang Yong, *Xiandai junshi weiji*, pp. 82–84.
 155. *Ibid.*, pp. 46–50.
 156. Liu Shaowen, "Budui chuzhi tufa shijian," pp. 19, 28; Lu Hui, *Jundui chuzhi tufa shijian*, p. 176.
 176. On the development of the PLA's domestic crisis response roles, see Blasko, "U.S. and Chinese Approaches."
 157. Lu Hui, *Jundui chuzhi tufa shijian*, pp. 176–77; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, p. 57.
 158. Wang Yong and Chen Senlin, *Guojia anquan weiji*, pp. 220–23; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 127–28.
 159. Lu Hui, *Jundui chuzhi tufa shijian*, p. 180; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, p. 55; Wang Yong and Chen Senlin, *Guojia anquan weiji*, p. 227.
 160. This is implied by Lu Hui, *Jundui chuzhi tufa shijian*, pp. 185–86. Interestingly, the problem of coordination across branches and among the PLA and other units is also the subject of political work inside the PLA related to crisis management. See Kong Chuiying and Guo Guicai, "Zhaoli tigao junshi tufa shijian chuzhi zhong zhengzhi gongzuo xiaoneng" [Focus on Raising the Efficacy of Political Work in the Handling of Military Sudden Incidents], *Zhengzhi xuekan* [Political Work Journal], no. 2 (2012), p. 36.
 161. The following discussion comes from Lu Hui, *Jundui chuzhi tufa shijian*, pp. 182–83; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 58–60.
 162. Lu Hui, *Jundui chuzhi tufa shijian*, p. 186.
 163. *Ibid.*, p. 244, fig. 6-1. Additional functions might include disseminating crisis predictions, warnings, and analyses to upper

- and lower levels; maintaining information databases about all different kinds of crises; organizing equipment and technology, including arms, to be used in a crisis response; and organizing political, foreign policy, propaganda, and media-coordination work. *Ibid.*, p. 192.
164. The following draws from *ibid.*, pp. 288–321, and Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*.
165. Lu Hui, *Jundui chuzhi tufa shijian*, pp. 312–13; Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 173–78; Cao Zhengrong, Sun Longhai, and Yang Ying, *Xinxihua lujun zuozhan* [Informationized Army Operations] (Beijing: National Defense Univ. Press, 2014), pp. 242, 250.
166. Lu Hui, *Jundui chuzhi tufa shijian*, pp. 311–12.
167. *Ibid.*, p. 312.
168. Some PLA planners envision three types of refugee zones along the DPRK border (“one station and two zones,” *yizhan liangqu*): reception stations at the border itself for preliminary processing; shelter zones for ordinary refugees extending no farther into China than areas administered by frontline townships; and supervision and control zones for military and political leaders fleeing the DPRK. These latter zones would be somewhat deeper into Chinese territory for security purposes but separated from the civilian shelter areas. Each frontline township would set up one to two shelter zones; each frontline county would set up two to three shelter zones, each able to accommodate 1,500 people, and one or two supervision and control zones, each accommodating five hundred people. The principles or concepts for setting up these zones and camps would be *xiao* (small scale for easier management), *yuan* (distance from any sensitive areas along the DPRK border or from concentrations of DPRK populations), and *san* (dispersal so that refugees in any one camp cannot link up with those in others). For details, see Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 162–66, 191–92; and Cao Zhengrong, Sun Longhai, and Yang Ying, *Xinxihua lujun*, pp. 244–45, 250–51.
169. See Qiao Zhongwei, Wang Jiasheng, and Zou Hao, *Bianjing weiji yingji kongzhi*, pp. 162–66; and Cao Zhengrong, Sun Longhai, and Yang Ying, *Xinxihua lujun*. In 2014 Kyodo reported on leaked PLA contingency plans for dealing with a border crisis with the DPRK. See Jin Dong Hyeok, “Report: China’s Military Prepared for Collapse Scenario,” *DailyNK*, 5 May 2014, www.dailynk.com/. There was skepticism among foreign commentators at the time concerning the credibility of the information, and the Chinese government dismissed the story; nevertheless, the details in the Kyodo report are identical to details in the book by Qiao Zhongwei, Wang Jiasheng, and Zou Hao cited above. The Kyodo report may have been referring to that book (which is classified “military circulation only”) or to documents with identical information.
170. David A. Welch, *Crisis Management Mechanisms: Pathologies and Pitfalls*, CIGI Paper 40 (Waterloo, Ont.: Center for International Governance Innovation, September 2014), available at www.cigionline.org/.
171. For recent examples of such proposals see Zhang Tuosheng, “Crisis Management and China-U.S. Mutual Trust,” *China-US Focus*, 9 April 2015, www.chinausfocus.com/foreign-policy/crisis-management-and-china-us-mutual-trust/; and Xiao Tianliang, *Zhanlue xue*, pp. 109–10.



RUSSIAN A2/AD IN THE EASTERN MEDITERRANEAN

A Growing Risk

Jonathan Altman

Much has been written about the challenges posed by the Chinese adoption of what the U.S. military calls “A2/AD” (antiaccess/area-denial) in the western Pacific. Accordingly, the Pacific remains a key focus area for the U.S. Navy and Air Force, and more recently the Army, with the Navy promising to put 60 percent of its forces in that theater as part of the “Pacific pivot.” Yet as focus remains on the Pacific, the rest of the world is not standing still. This is exemplified in the eastern Mediterranean, where the Russians have begun laying the seeds to create an A2/AD zone in the region against the United States and its allies. If fully realized, an A2/AD envelope would put Western access to the Suez Canal, the Black Sea, and the resource-rich eastern Mediterranean at the mercy of an increasingly aggressive Russian regime.

LAYING THE SEEDS

Three interrelated elements make the development of an A2/AD zone in the eastern Mediterranean possible for the Russians. The first of these is the prospect of a credible, present military force, which in this case would most likely be provided by forward deployments from the Russian Black Sea Fleet. Armed with three (six by later this year) new, enhanced Kilo-class diesel-electric sub-

marines, eleven thousand marines, and a surface contingent of forty-two ships as of 2014, the Russian Black Sea Fleet is certainly one of the most capable maritime forces in the region.¹ In contrast, the U.S. Sixth Fleet has a single command ship and four destroyers (DDGs) permanently

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assigned to it as of 2015, and those DDGs are based at the other end of the Mediterranean, in Spain, with only occasional rotational presence from ships passing through its area of regard on the way to or back from the Middle East. Although the United States does have regional allies with credible maritime combat power, the Russians are working to drive wedges into these relationships—which, not coincidentally, is the second pillar of Russia's regional strategy.

The Russian effort to decouple long-standing allies such as Greece, Turkey, and Egypt (and perhaps even Italy) from political and military alignment with the United States has been helped by U.S. policy choices as well as favorable circumstances the Russians can exploit.² The case of Greece began with the formation of a coalition government, since reelected, comprised of far-left and right-wing parties that are deeply resentful of the European Union and its American allies.³ This government is committed to breaking out of the fiscal austerity “straitjacket” imposed as terms for European Union loans, and is ideologically aligned with Russian “Eurasianist” geopolitical theory.⁴ This state of affairs has opened new opportunities for extending Russian influence, and the Russians have waded into this fray, supporting the Greek government politically, and publicly entertaining the possibility of assisting Greece with its debt issues.⁵ Greco-Russian relations have, not surprisingly, warmed considerably.

In the case of Turkey, Russia has taken advantage of a decadelong trend by the Erdogan government away from democracy toward authoritarianism.⁶ As the West has criticized President Recep Tayyip Erdogan for imprisoning journalists, fabricating charges against political opponents, and repressing civil dissent, the Russians have remained supportive, to the point that Erdogan has praised Putin directly.⁷ This is not to say that areas of disagreement do not exist between these two nations, especially over policies with respect to Syria. Nevertheless, amid these disputes the Turks continue to promote a narrative of cooperation in other areas.⁸

The other Russian charm offensive in the region has been focused on Egypt. Faced with a virulent insurgency in the Sinai, and a U.S. administration that until recently was withholding military aid as punishment for the suspension of democracy, Egypt's repressive military junta has instead turned toward the Russians for military equipment procurement for the first time since the mid-Cold War.⁹ The result of these actions has been increased goodwill for Russia from three countries that control choke-point access to and freedom of maneuver within the eastern Mediterranean, not to mention use of the eastern Mediterranean to access the Black and Red Seas. Neutrality (or even a delay, if the crisis were fast developing) in contributing formal support to the United States by these countries could pose a major challenge to U.S. strategy in the event of a Russian-American crisis or conflict.

With access for Russia's credible maritime combat power vastly improved, the final aspect of Russian regional strategy is to secure and expand basing agreements. Limited by geography, the Russians have no port on the Mediterranean; any warships they might want to put in the region would likely come via the Black Sea (although assets could be deployed from their other fleets, assuming they could pass through Gibraltar or Suez). Even though Turkey may be more cordial with Russia now than in the past, forward-basing agreements hedge against a risk of change in the political winds in Ankara that could bottle up the Black Sea Fleet. Additionally, forward basing allows a navy to keep more assets in theater without increasing fleet size, multiplying the impact of a smaller force.

The Russians' approach to expanding regional forward basing is simple: start with what already exists, then grow selectively, as permitted by relationships and favorable geography. Today, Russia's only naval base outside the former Soviet Union is in Tartus, Syria, on the shore of the eastern Mediterranean. As the advance of anti-Assad rebels has increasingly pressured the Syrian regime, Russia has doubled down on both political and military support to the regime. Politically, Russia has provided a friendly voice at the United Nations to the otherwise-pariah Assad government, and has worked within the United Nations and other international forums to blunt policies that could harm Assad.¹⁰ Militarily, Russia has since September of 2015 begun to commit regular military forces in support of the Syrian government, including ground-attack fixed- and rotary-wing aircraft, naval vessels, and Russian marine infantry.¹¹ However the Syrian civil war might turn out, it is clear that Russia is willing to invest to preserve its regional allies (and bases). Lastly, the Cypriots, long prone to Russian sympathies, recently agreed to an expansion of Russian port calls, and even potentially an air base.¹² This could provide the Russians an additional strategic location to use in the region beyond Syria.

BUILDING AN EFFECTIVE ENVELOPE

According to the Defense Intelligence Agency, the presence of Yakhont antiship cruise missiles (ASCMs) in Syria alone has been enough to create a surface naval A2/AD zone in the northeastern corner of the Mediterranean.¹³ Furthermore, rolling the three previously discussed aspects of Russian strategy together, it becomes clear how an expanded eastern Mediterranean A2/AD envelope could be established in the very near future. As Mahan famously wrote, the land features of a region can play a large role in determining maritime influence and access.¹⁴ As part of its intervention in support of the Syrian government, Russia has established a new air base in western Syria, giving it a second operating location in Syria beyond its naval station at Tartus.¹⁵ Russia has already deployed tactical aircraft and strategic airlift to its new air base, putting in place a key pillar

for any future establishment of an A2/AD envelope. In such a scenario, tactical aircraft would function as one part of the system, performing air interdiction, land attack, and potentially antiship attack of U.S. or NATO forces attempting to operate within the A2/AD zone. The preexisting deployment of land-based, Russian-supplied Yakhont ASCMs in Syria provides an additional boon to the area-denial aspect of Russia's approach, which could be augmented by further sales or deployments of Russian forces equipped with ASCMs to other friendly countries.¹⁶ Additionally, Russia has deployed a number of unmanned aircraft to provide targeting information to its forces in Syria; many of these systems could be extendable to intelligence, surveillance, and reconnaissance (ISR) operations within Syria's periphery.¹⁷ Competent ISR is a major pillar of effective A2/AD operations, as these systems are essential for cueing attacks by other forces such as aircraft, ships, or land-based missile batteries against over-the-horizon (OTH) targets. Information gathered by these systems can be meshed with that from overhead imagery (which does not need a forward operating base) to increase overall targeting effectiveness.

While the Russians have deployed many of the asset types needed for effective A2/AD in the eastern Mediterranean, they have not yet deployed other key A2/AD capabilities. One example is the failure to deploy advanced mobile long-range surface-to-air missiles (SAMs) alongside existing Russian Yakhonts, tactical aircraft, and ISR assets in Syria, or perhaps to deploy such SAMs in notional locations in Cyprus. Much has been written about the capabilities of Russian "triple digit" SAMs, both the in-service S-300s and S-400s as well as the developmental S-500. S-500s will have up to a 600 km antiair range, according to some Russian sources—enough to blanket the region from Crete east, assuming they are based in Cyprus (the same sources cite the S-400's range as 400 km, with newer variants of the earlier S-300 at a more modest 200 km).¹⁸ The Russians may also seek to adapt these systems to enable integration aboard surface ships beyond the existing S-300FM integration in Russian cruisers, further increasing SAM deployment flexibility.¹⁹ Advanced SAMs such as these would significantly improve Russian A2/AD capability in the region by enabling wide-area and highly responsive antiair coverage while simultaneously decreasing the demands on Russian fighters to maintain combat air patrols.

To increase further the effectiveness of their targeting, the Russians could also consider deploying land-based OTH targeting (OTHT) assets in the region, most likely at one of their Syrian bases for those systems that require a fixed location. Examples of such OTHT systems could include signals intelligence collection sites and OTH surface-wave radars, both of which would increase Russian situational awareness. OTHT would moreover, by definition, increase Russian detection ranges, and could be interlinked with other ISR assets to form an integrated,

highly capable detection system. A Russian deployment of Black Sea-based Kilo-class submarines to the region would insert a further threat into the under-sea domain at a time when more advanced but already overtaken U.S. nuclear submarines continue to decline within the force structure.²⁰ If Russia could rely on Iranian irregular troops or proxies such as Hezbollah to provide material support for the imposition of an A2/AD zone—for instance, by assisting with local ground defense and security in areas where such systems are deployed—the strength of the zone would be amplified. The degree to which U.S. and allied (especially Israeli, given the country's proximity) surface and air access in the eastern Mediterranean would be imperiled by any single one of the potential deployments discussed, and especially by combinations of them, should be clear.

Taking into account the technological and tactical considerations of the previous paragraphs, what else would the Russians need to do to establish formally an effective, militarily relevant A2/AD zone in the eastern Mediterranean? The first and most important action would be to attempt to ensure Turkish noninterference (Greek and Egyptian noninterference would be desirable too, but much less important comparatively). As touched on already, since Turkey controls access from Russian Black Sea ports to the eastern Mediterranean, Turkish noninterference greatly simplifies the imposition of an A2/AD envelope. So long as Turkey allows Russian vessels to pass into the Mediterranean, resupply of forward Russian forces would be uncomplicated; reinforcements could flow in unabated as needed. To support this outcome, Russia might use its newly deployed forces in Syria plus its preexisting forces in the Black Sea and south Caucasus regions, or perhaps the threat of closer Russian political cooperation with Greece, to coerce Turkish passivity in the event of a Russian threat against other NATO allies.

While Russian establishment of an eastern Mediterranean A2/AD zone could still work even if a neutral Turkey closed passages from the Black Sea to the Mediterranean during or surrounding a conflict, an openly hostile Turkey would almost certainly negate Russian plans.²¹ In that eventuality, any Russian forces in theater would be subject to a rear-column threat from a capable Turkish navy (along with land-based aircraft), and Russian bases would be threatened by Turkish offensive capabilities. Accordingly, for a Russian eastern Mediterranean A2/AD envelope to be feasible, at the very least Turkey must not actively oppose it with military force.

In the event a neutral Turkey did seal access to the Mediterranean, one work-around could be the use of an air bridge to resupply forward forces by ferrying supplies from Russia through Iran and Iraq into the region. Russia has already pursued this approach to deploy its forces in Syria when American allies did not permit Russian overflight of their territory.²² However, less matériel can be supplied via air than by sea, and the resultant volume might not be adequate to

maintain sufficient forces in theater over a longer period of tension or conflict. In such a case, Russia could also attempt to move matériel overland along the same route as the air bridge, although it is unclear whether the transportation infrastructure exists to support such logistical volume. Nor is it clear whether Iraq would grant such access.

Beyond securing Turkish nonhostility, the next action needed to increase the chance of success in this endeavor is the repositioning of forces and supplies in the region—which the Russians seem to be doing in Syria today, and may consider in the future elsewhere, such as in Cyprus. There are many ways this could be accomplished in countries such as Cyprus, where the Russians lack a permanent base, whether through announced “rotational” basing agreements or simply secretly stockpiling hardware with tacit Cypriot acceptance (perhaps in exchange for a favor, such as a generous loan or a discount on Russian oil). However it is accomplished, having sufficient combat power and supplies in theater when a conflict starts would confer significant advantage on Russian forces by both eliminating the time needed to concentrate combat power and providing forward forces with several days, if not weeks, of warfighting supplies, regardless of other operational considerations (for instance, if Turkey closed the straits to nations involved in the dispute while remaining neutral). The Russians could augment combat power further, assuming they knew when the conflict would start (not an unreasonable suspicion, given recent events in Ukraine), by staging a training exercise to concentrate additional forces in the area before the conflict began, as they did against Georgia in 2008.²³ Using an approach like this, the Russians may be able to present the establishment of an effective A2/AD zone as a *fait accompli* by the time a recognized conflict has emerged.

If the Russians wanted to delay further a potential response in a crisis scenario, they could couple their establishment of an A2/AD zone with limited strikes on select hostile forces in theater (perhaps after some nominal period during which any forces would be allowed to flee—ideally designed to be too short to allow all hostile assets to leave) to solidify their credibility and force any opponents to fight their way into the A2/AD zone with forces brought in from other theaters. While this approach would be very likely to ensure a response from the nations whose assets were attacked, and would necessitate openly admitting their involvement (in contrast to their recent Ukraine interventions), the Russians may be willing to gamble that the delays and confusion caused by these strikes (especially if combined with their recent diplomatic charm offensive in the region) would ultimately undermine the political will of some NATO, or other potentially NATO-allied, nations to respond. The goal of such an attack would be to raise the level of commitment needed to respond and to dissuade other nations, especially those whose forces were not attacked (and who therefore might not yet be militarily involved),

from joining the effort. The more this line of thinking permeates among potential responding nations, the less potent a response the Russians would likely receive. Nevertheless, limited opening strikes like these are more of a consideration than an outright requirement for success.

PUTTING THE SCHEME TO WORK

Assuming the Russians have at least some capability to establish an A2/AD zone in the eastern Mediterranean, it provides numerous geopolitical advantages. From a peacetime perspective, once local actors believe the Russians have a capability to establish an A2/AD zone at will, Russian influence in the region will increase further. While not all nations in the eastern Mediterranean are ideologically aligned with the Russian worldview, they will need to acknowledge that such a Russian ability—to deny other nations' forces entry into and freedom of maneuver within the region—makes cordial relations with Russia essential. Accordingly, analysts should expect neutral countries or even nominal opponents of Russian interests (such as Jordan, Israel, and Bulgaria) to refrain from criticizing Russian actions on the whole, and to take a more deferential approach to bilateral relations as this reality materializes. Nations already leaning toward the Russian orbit may not only highlight their ties with Russia more openly but seek to deepen them. Over time, this will turn Russian power in the region into a norm—at the expense of U.S. and Western European influence, much in the same way that U.S. commitment of resources and combat power kept parts of Europe (Italy and Greece are prime examples) from succumbing to Soviet influence following the Second World War.

To take this argument further and expand its time horizon, the combination of eastern Mediterranean pressure and aggressive Russian political messaging and military posturing both in Central Europe and in the Baltics could play into a larger effort to erode NATO.²⁴ Assuming that southern Europe remains NATO's "weak flank," a long-term campaign to keep southern European nations from supporting diplomatic or other efforts to counter Russia's goals out of fear of Russian power or desire for Russian friendship would erode NATO's credibility, if not also its combat effectiveness. This could feasibly be part of a longer-term plan to break the alliance, as the more NATO seems unable to maintain the internal cohesion necessary to confront challenges, the less credible it becomes. This incremental approach fits with recent Russian actions in Crimea and eastern Ukraine, whereby Russia slowly ratcheted up its aggression (combined with extensive misinformation) to achieve a *fait accompli* before it could be effectively challenged.

If some sort of confrontation were to occur, the ability to establish, or even to threaten plausibly to establish, an eastern Mediterranean A2/AD zone could confer distinct warfighting advantages as well. Consider if the Russian aim in a

campaign were to reclaim some part of the Baltics. To slow NATO's ability to respond to such a provocation, the Russians could use their SAM capabilities to declare a no-fly zone in the eastern Mediterranean, and declare military aircraft of any NATO or NATO-supporting nations to be legitimate targets. The most likely reaction to this threat by those nations close by would be to seek support immediately from NATO, which would distract from a response elsewhere. The mere confusion caused by such a move could delay NATO action long enough to allow the Russians to create a *fait accompli* in the Baltics. Once they are entrenched, the prospect of forcibly evicting Russian forces from the Baltics becomes much more daunting, and many NATO nations would likely not have the domestic political support necessary for a potentially large campaign.

Of course, the "second front" approach described here could also be used in ways less focused on warfighting, such as to break the resolve of regional NATO nations to continue resisting Russian policies. As an example, Russia could establish an air-defense identification or maritime exclusion zone in the region and claim that such an action was needed to "prevent the delivery of weapons to terrorists threatening the Syrian people." In the case of an air-defense identification zone, any aircraft could be denied this airspace if its leadership were working against Russian aims (by supporting sanctions, opposing the Assad government, etc.), and diverting aircraft around it consistently could be expensive and time-consuming. The Russians could similarly take this campaign to the seas by insisting that any vessel with a NATO flag passing through the area be subject to additional searches. These searches could be imposed concurrently with the "preventative" no-fly zone described above for added effect. For those NATO nations that seemingly are removed from the threat of Russian confrontation except with respect to a NATO Article 5 breach, it could become tempting to relieve themselves of these headaches by acceding to Russian influence.

COUNTERING RUSSIAN PLANS

Fortunately, there are options available to mitigate the risks of such an outcome. Starting at the geopolitical level, the most straightforward counter to the Russian establishment of an eastern Mediterranean A2/AD zone would be to break the nascent bond between Russia and Turkey.²⁵ For reasons already described, an openly hostile Turkey would prove a fatal bar to Russian aspirations. Practically speaking, there are a number of pressure points that could be leveraged by American policy makers seeking to fracture the Russian-Turkish relationship. Perhaps most immediately, the conflict in Syria provides an opening. While the Russians continue to support the Assad government against all rebel forces, including through active aerial bombardment, Turkey remains fundamentally opposed to Assad's continued presence and provides support to some of those same forces

seeking to overthrow him.²⁶ This discord could be highlighted to increase domestic pressure on President Erdogan to back off from supporting Russia. American officials could also consider more robustly supporting some Turkish-backed Syrian rebel groups to gain a more favorable perception from Erdogan. There are additional avenues that could be pursued to undermine Russian-Turkish bilateral relations as well, such as publicizing past historical enmity or Russia's harsh treatment of Muslims in its Caucasus region.

Another nonmilitary option for countering Russian plans can be found in defense policy. Specifically, NATO nations could individually, in groups, or preferably as one voice issue a strong statement of maritime declaratory policy with respect to Russian expansionism in the eastern Mediterranean. Such a statement would aim to show the Russians that the alliance is united in opposition to the Russian threat and that Russian moves are not going unnoticed. Of course, to be effective—to avoid being seen as hollow—this statement would need to be supported by military demonstrations. One such example could be the announcement and visible media coverage of a NATO-wide war game in the Mediterranean in which the alliance would practice its abilities to cooperatively respond to regional A2/AD challenges. The effect of this war game would be amplified if NATO forces were seen to be often practicing, as part of their normal routines, the planning and joint naval exercises needed to operate in an A2/AD environment.

Beyond geopolitical and defense-policy solutions, there are three broad, Navy-focused options that could be pursued. The first but least desirable of these would be transferring forces from other theaters to increase U.S. Navy (and by consequence NATO) capability in the eastern Mediterranean. The issues in the eastern Mediterranean are fundamentally a symptom of a U.S. Navy that is undersized for the global tasks assigned to it and a NATO maritime force that no longer provides sufficient deterrent effect. To redeploy existing U.S. forces to the Mediterranean would merely exacerbate these symptoms in another part of the world. A second option—which from a navalist's perspective is the most desirable, but simultaneously the most politically challenging—is to grow the size of the U.S. Navy. During the Cold War, carrier and amphibious group deployments to the eastern Mediterranean were routine, assuring U.S. allies of our commitment to their defense while deterring potential Soviet aggression. By contrast, the Navy's current supply of day-to-day deterrence through credible combat power and presence is far outstripped by worldwide demand.

Acknowledging this issue, and taking the current fiscal-policy conflict between Congress and the administration into account, expanding the credibility and relevance of regional NATO forces may be the quickest and most feasible way to push back against the Russian A2/AD threat. There are two reinforcing actions that could be taken in this area, starting with reinvigorating Standing

NATO Maritime Groups. Currently NATO operates two Standing Maritime Groups, although between them both only seven ships are combatants (and three of those are recent augmentations above normal force structure).²⁷ Given that no allied submarines and only a handful of helicopters are included within the groups combined, this force is highly vulnerable to Russian submarine attack or coercion. This could be addressed by augmenting the standing group assigned to the Mediterranean with allied undersea forces. Furthermore, the allocation of dedicated land-based airpower and additional surface combatants to NATO maritime forces would increase their credibility in the region. To be maximally effective, these reinvigorated standing groups should ensure their proficiency in key training and warfare areas critical to defeating A2/AD networks. This should include fielding advanced electronic warfare (EW) capabilities and training personnel to employ countersurveillance techniques that can together defeat any OTHT systems supporting Syria-based Yakhonts or potentially other ASCM threats. Other areas of emphasis could include increased focus on antisubmarine warfare (ASW) techniques and amphibious raid support (to deal with potential inland Russian SAM threats). Additionally, standing groups have the deterrent benefit of tying nations together, as an attack on the group would affect at least a half-dozen different countries. To add further effect, NATO leadership should work to ensure Greek and Turkish participation (although perhaps not concurrently, for historical reasons) in a Mediterranean Standing Maritime Group and cycle it through the eastern Mediterranean regularly, if not base it there.

The second action that would help to increase the credibility and relevance of regional NATO forces is to focus future acquisitions on capabilities that either fill current operational gaps or enable deployment of systems most likely to deter Russian aggression.²⁸ Given previous coverage of Russian strengths in the region, one obvious area for technological improvement is ASW. Besides new Italian-variant European multipurpose frigates, or FREMMs, no other regional navy deploys ASW missiles or rockets (and even the FREMMs only have four per ship).²⁹ This oversight should be rectified in future surface-ship acquisitions, and an evaluation of the ability to backfit this capability onto current platforms should be undertaken. Similarly, a renewed commitment to ASW would be reinforced by consistently designing NATO and NATO allies' surface ships intended to perform an ASW mission with a double hangar for ASW helicopters, which greatly increases their effectiveness over those with a single one.³⁰ This is all the more critical given that, due to the aforementioned general lack of ASW missiles or rockets, most NATO navies can only attack enemy submarines organically through the use of a helicopter.

Another area where smarter procurements could fill an operational gap is EW. If NATO maritime forces are to operate credibly against the described

Russian A2/AD envelope, they will need to overcome potential threats from both land- and sea-based ASCMs. Having more sophisticated EW suites on board (preferably at or near the level of U.S. Navy capability) will make regional NATO maritime forces more survivable, and complicate holding them at risk. Prioritizing investments in unmanned systems (air, surface, and subsea) is another area to consider. Unmanned aerial systems, for instance, could help with a number of issues that current NATO maritime forces face, from improving communications resiliency in a denied environment (through line-of-sight linkages using unmanned aerial vehicles to pass data between platforms), to OTH targeting and sensing.³¹ Improved sensing would also be augmented by incorporating more unmanned undersea systems, which could help detect enemy submarines or perform reconnaissance of surface-denied areas.

As a final consideration, doing more to integrate U.S. and NATO naval tactical data networks could pay large dividends from a warfighting perspective. This might include expanded testing efforts to ensure that developmental datalink management and naval combat system baselines across the alliance are interoperable and that defects are identified and corrected early. This might also include instituting more-efficient approaches to electronically “sanitizing” situational information originating from allies’ respective higher-classification resources to help facilitate a common force-level “picture.” This would allow ships of different navies to pass tactical information back and forth easily, greatly improving each individual platform’s operating picture, and consequently the whole force’s as well. Closer integration of allies’ respective tactical data networks would also enable a more robust sensor picture that could be used for distributed fire control (i.e., one platform fires weapons using sensor data provided by another platform) and more-efficient air defense (assuming a common set of rules of engagement could be agreed on and the requisite cooperative technical efforts were pursued). However, given the information-assurance issues that could come with linking U.S. networks to those of another nation, the potential risks of such an approach and possible technical approaches to mitigating them should be well understood before pursuing this course.

Whatever course of action the United States and NATO ultimately pursue, it is important for policy makers and strategists alike to recognize the serious strategic implications of a Russian A2/AD envelope in the eastern Mediterranean. Such an envelope would present grave challenges to U.S. influence in the region and would imperil the free flow of commerce that is essential to U.S. and global prosperity. It would be wise to take steps now to prepare for this threat rather than attempting to address it after it becomes realized.

NOTES

The views expressed herein are solely those of the author and are presented in his personal capacity. They do not reflect the official positions of Systems Planning and Analysis, Inc., and to the author's knowledge do not reflect the policies or positions of the U.S. Department of Defense, any U.S. armed service, or any other U.S. government agency.

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THE U.S. MERCHANT MARINE

Back to the Future?

Christopher J. McMahon

The marketing of our productions will be at the mercy of any nation which has possessed itself exclusively of the means of carrying them; and our policy may be influenced by those who command our commerce.

PRESIDENT THOMAS JEFFERSON, MESSAGE TO CONGRESS

To the spread of our trade in peace and the defense of our flag in war, a great and prosperous merchant marine is indispensable. We should have ships of our own and seamen of our own to convey our goods to neutral markets, and in case of need, to reinforce our battle line.

PRESIDENT THEODORE ROOSEVELT, LAST ANNUAL MESSAGE TO CONGRESS

To speak plainly we have grossly erred in the way in which we have stunted and hindered the development of our merchant marine. . . . It is necessary for many weighty reasons of national efficiency and development that we should have a great merchant marine. . . . It is high time we repaired our mistakes and resumed our commercial independence on the sea.

PRESIDENT WOODROW WILSON, MESSAGE TO CONGRESS

The epigraphs that open this article are but three of a vast number of quotes from U.S. presidents, members of Congress, and military leaders calling for support of a U.S.-flag merchant marine.¹ Throughout American history, dozens of laws have been proposed and passed that have, in varying degrees, supported the operation of U.S.-flag ships in both coastal and international trade; no law ever passed has called for a reduction in or the elimination of U.S.-flag ships. And yet, despite periods of great growth at various times in U.S. history, the U.S. Merchant Marine, once again, is in serious decline today.

In keeping with so many of our nation's political, military, and maritime leaders throughout American history, this article contends that relying substantially on foreign-flag shipping for either strategic or commercial purposes places the

United States in an extremely vulnerable position. Our history has proved this repeatedly through the centuries. Once again today, it is in the interest of the United States to take serious and comprehensive steps to reverse the declining trend of the U.S. Merchant Marine. Through various tax incentives and other innovative promotional programs (notably, *not* involving additional direct subsidies to the industry), it is possible to do this—and for America’s merchant marine, yet again, to regain its position as a leader in maritime commerce.

This article will trace the highlights of America’s commercial shipping history and present the reasons why the U.S. Merchant Marine engaged in international trade is in steep decline. It will provide reasons why support for a U.S.-flag merchant marine is still critical to the economic prosperity of the country despite its reliance for the past several decades on foreign-flag shipping. It will also explain the critical role that U.S.-flag shipping plays in America’s ability to project military power around the world.

In other words, the article will provide the “why” a U.S.-flag merchant marine is a strategic industry that is crucial to national security. By congressional mandate (the Howard Coble Coast Guard and Marine Transportation Act of 2014), the Maritime Administration is developing a National Maritime Strategy that (at this writing) will be available for review in late 2015 or early 2016. This strategy will provide the “how” to revitalize the U.S. Merchant Marine so that it can, once again, become a healthy and viable commercial industry.

THE U.S.-FLAG MERCHANT MARINE IN THE EARLY YEARS OF THE REPUBLIC

There is little question that the founding fathers of America understood the importance of U.S.-owned, -operated, and -flagged commercial ships. Early U.S. presidents were concerned that a lack of U.S.-flag ships could disrupt America’s vital trading economy in times of international conflict. After approval of the Constitution, when the first Congress convened in 1789, one of its first acts was to pass a law that, among other things, provided for a 10 percent reduction in tariffs on imported goods carried aboard U.S.-flag ships. As a result, American-flag shipping began to expand almost immediately in the new Republic.² In 1789, U.S.-flag vessels carried 23 percent of American imports and exports; by 1800, this number had jumped to 89 percent.³

To support the U.S.-flag shipping industry further, Congress enacted cabotage laws during the first decade of the 1800s.⁴ Today some critics of the Merchant Marine Act of 1920 (commonly known as the Jones Act) believe the restrictions placed in the law to support U.S.-flag shipping—expressly prohibiting the movement of goods between U.S. ports aboard foreign vessels—are of relatively recent

vintage; but they were originally passed in 1817. Congress and the president passed the 1817 law because they understood the importance of having a U.S.-flag merchant marine to carry the nation's trade. The law was briefly suspended during World War I because the U.S. Merchant Marine had so atrophied that it could not support U.S. trade, foreign or domestic. In 1920, cabotage laws were reestablished in the Jones Act.⁵

For the first sixty years of the American Republic, the U.S. Merchant Marine enjoyed substantial benefits provided by the federal government. Cabotage laws and tariff duties on foreign vessels carrying U.S. imports and exports promoted U.S.-flag shipping. Perhaps more important, U.S.-flag ships could compete against other flags because there were very few competitors. Another advantage was that U.S.-flag vessels were constructed of wood in U.S. shipyards; easy access to the raw materials made the ships relatively inexpensive to build. For these reasons, during the first half of the nineteenth century U.S.-flag shipping enjoyed a so-called golden age. During this period, U.S.-flag ships carried 75 to 80 percent or more of America's foreign commerce.⁶

THE DECLINE OF THE U.S.-FLAG MERCHANT MARINE, 1850–WORLD WAR I

The advent of the industrial age, with its development of iron ships and steam engineering, ended the glory days of the U.S. Merchant Marine. In the second half of the nineteenth century, European countries emerged as the first industrial powers, with Great Britain in the lead, and it was the merchant ships of Great Britain, and later other European industrial powers, that captured the world lead in number of cargo ships and their cargo-carrying capacity and efficiency.

Other important factors contributed to the continuous decline of the American merchant marine from the 1850s to World War I. By the 1860s, it was clear that the time of wooden sailing ships was over and the era of steam and steel had arrived. U.S.-flag operators sought permission to purchase foreign-built steamships for their fleets, hoping that, in time, U.S. shipyards would adopt the new technologies. Unfortunately, the U.S. shipbuilding industry—still constructing only wooden vessels—strongly opposed this measure, so it failed to gain sufficient political support.⁷ As a result, many U.S.-flag shipping companies went out of business.

The American Civil War added to the problem. When the Confederate states sank Union commercial vessels, Northern shipowners sought protection for their vessels from the Union Navy, but the federal government was unwilling or unable to provide it. So, to protect their investments, many owners reflagged their vessels to neutral states.

Despite the wartime reflagging of many U.S.-flag vessels, the American merchant marine was still carrying 32.2 percent of the reunified country's imports and exports after the Civil War.⁸ By the war's end, however, many merchant ships were in poor physical condition. To make matters worse, those shipowners who had reflagged their vessels to neutral flags during the war were considered traitors, and Congress passed a law specifically forbidding the retransference of these vessels back to the U.S. flag.⁹

By 1914, the U.S. Merchant Marine was carrying less than 8 percent of the nation's commerce. Another major factor contributing to this decline was absolute apathy on the part of most of the American public and politicians concerning the demise of America's sealift capabilities.

Such apathy is perhaps understandable, given the context of the times. Prior to the 1860s, America was a commercial maritime power. The nation and its people thought in maritime terms. Most Americans lived near the sea. The nation was huge in comparison to those of Europe, yet the interior of the country was only sparsely settled, still largely in the hands of native peoples. Roads were poor or nonexistent, and railroads were few and far between. People mostly traded and traveled by sea or on inland waterways. Even the 1840s Gold Rush to California was essentially a maritime event: only a tiny percentage of "forty-niners" traveled west by wagon train. Instead, the vast majority went by sea, either transferring overland via Panama from an American ship to another American ship, or taking the long voyage around Cape Horn aboard one of the famed American-flag California clipper ships.

After the Civil War, however, America turned inland and forgot its maritime roots. There was a continent to explore and settle. The explosive growth of railroads crisscrossed the entire country with new rail lines. Vast numbers of immigrants arrived from inland parts of Europe; their only understanding of the maritime world was their often-terrifying North Atlantic crossing in steerage aboard an overcrowded sailing or sail-assisted steam vessel. As inland territories, far from the sea, developed into states, their elected representatives brought to Washington a limited understanding of all things maritime. As a result, public interest in and knowledge of maritime affairs—including a U.S.-flag merchant marine—waned, becoming much more limited than in the early decades of the Republic.

Despite the overall lack of support for a U.S.-flag merchant marine in the decades following the Civil War, there were many political leaders, including members of Congress and officials in various presidential administrations, who understood that the decline in the number of U.S.-flag ships placed the country in jeopardy. This danger became particularly evident in the decades after the 1860s as America became a major industrial power and an exporter of

manufactured goods, slowly emerging onto the world stage as a military power as well. For these reasons, mail-subsidy and tariff legislation was enacted to support the operation of U.S.-flag shipping in international trade. Policy makers hoped that these efforts would reverse the ongoing decline in the number of U.S.-flag ships. Unfortunately, competing political interests caused most of these efforts to fail, and several scandals related to mail-subsidy payments caused other efforts to falter as well. Nothing worked, because the political will in Washington did not exist to support a U.S.-flag merchant marine, and the American public at large perceived no particular value in a U.S.-flag fleet.¹⁰

Curiously, it was an American, Alfred T. Mahan, who dramatically energized global powers, including, eventually, the United States, about the critical importance of commercial flag-state merchant shipping and accompanying naval power. In his seminal work *The Influence of Seapower upon History* (based on a series of lectures given at the U.S. Naval War College, in Newport, Rhode Island, and published in 1890), Captain (later Rear Admiral) Mahan, USN, concluded that merchant shipping was both a source of maritime power and something navies needed naturally to defend. Geoffrey Till, in his *Seapower: A Guide for the Twenty-First Century*, observes that “Mahan even came close to saying this was the reason navies existed in the first place.”¹¹

The necessity for a navy springs from the existence of peaceful shipping and disappears with it, except in the case of a nation that has aggressive tendencies and keeps up a navy merely as a branch of the military establishment.¹²

Mahan’s reasoning was that maritime trade (and thus a flag-state merchant marine) arises in a natural manner, as nations are inclined to create trade in order to obtain wealth. A nation wishing to protect its ships and trade lanes needs a navy. In a world filled with competing nations and empires, the nations with the largest and most powerful battle fleets will be the wealthiest and most powerful.¹³

That Mahan’s theories influenced maritime nations is an understatement. The British Empire at the turn of the twentieth century seemed to be proof positive of Mahan’s assertions. Maritime nations in Europe and the Japanese in Asia strove to build up their merchant fleets and their navies and to develop and expand their empires further. America, too, seemed to listen to Mahan—but only as far as naval power was concerned. The U.S. Merchant Marine was still allowed to languish, and dependence on foreign-flag merchant shipping to carry America’s commerce expanded even as America’s exports increased during the late nineteenth and early twentieth centuries.

America’s lack of commercial shipping capability manifested itself dramatically during the Spanish-American War in 1898. While the U.S. Navy had by then built several modern warships and was prepared to challenge the much weaker

Spanish fleets in Cuba, Puerto Rico, and the Philippines, there was a severe shortage of military or commercial sealift to support the fleet away from American shores. In fact, during the war it was necessary to charter and purchase foreign ships to resupply the fleets, which caused long delays in military operations. Frankly, it was only because of the weakness of the Spanish fleet that the United States prevailed, and it was coincidental that the U.S. Navy was able to procure the necessary foreign shipping at all.¹⁴

While the Spanish-American War clearly demonstrated the inability of the United States to support naval operations offshore, the following year the Boer War in South Africa demonstrated the commercial vulnerability of the United States due to its dependence on foreign-flag shipping. As a result of its war with Dutch settlers in South Africa, the British government requisitioned British ships that had been carrying American commerce. Intended U.S. exports sat on the docks in U.S. ports or shippers paid exorbitant freight rates. A major disruption in trade resulted, causing serious damage to the U.S. economy. The absence of U.S.-flag shipping during this period caused consternation in public and private circles. Congress conducted a number of hearings that highlighted the vulnerability of the American economy because of its dependence on foreign-flag shipping. Despite this, little or no action was taken to correct the problem or develop support for the U.S. Merchant Marine.¹⁵

While America failed to grasp Mahan's insistence on the importance of controlling commercial shipping, it did, however, expand its Navy under the leadership of President Theodore Roosevelt. The famed "Great White Fleet" consisted of sixteen battleships and escorts. In a show of rising American naval power, Roosevelt sent the fleet on a one-year around-the-world voyage from December 1907 to February 1909. However, once again, the scarcity of U.S.-flag commercial and strategic sealift manifested itself. During the battle fleet's circumnavigation, the Navy was forced to charter a hodgepodge fleet of numerous foreign-flag vessels from many nations to replenish and support the fleet—a situation that was not only embarrassing but indicative of strategic weakness. The vulnerability of the U.S. Navy having been made obvious yet again, several congressional committees took note—but still no concerted effort was made to promote U.S.-flag shipping.¹⁶

In the years leading up to World War I, American agricultural and industrial exports continued to increase substantially. America became an economic superpower even while the U.S. Merchant Marine continued to decline. Then, as now, Americans and American-owned businesses were confident that inexpensive foreign-flag shipping was sufficiently bountiful that it would be readily available if needed. This proved—again—to be a false assumption. With the outbreak of war in 1914, the American economy, dependent on international trade,

experienced a lack of availability of commercial ships. The European nations that had previously provided the commercial sealift for the American economy withdrew their vessels for wartime purposes. This caused widespread disruption in trade; manufactured products piled up on American docks, in railcars, and in warehouses, and agricultural goods spoiled because they could not be conveyed to overseas markets. The American economy suffered greatly owing to a lack of commercial shipping.¹⁷

WORLD WAR I TO THE PRESENT

The extent of the damage to the American economy caused by the shortage of U.S.-flag shipping in 1914 was so serious that Congress finally decided to act. But this took time, and the insufficiency of commercial shipping continued to imperil the economy. Following numerous and lengthy hearings, the Shipping Act of 1916 was finally passed. It created a Shipping Board that was specifically designed to promote and assist the U.S. Merchant Marine. By the time the board was fully established, however, it was apparent the United States would soon enter the war, and the board was placed on a wartime footing. In October 1917, the board requisitioned the entire U.S. Merchant Marine.¹⁸ In 1917, the Shipping Board initiated a huge shipbuilding program through the creation of an Emergency Fleet Corporation. Eventually, the board contracted for over 1,700 merchant vessels, an unprecedented effort. But American participation in the war was so short that only 107 ships were delivered before the armistice in November 1918.

However, the remaining vessels were completed by 1922, in hopes that U.S.-flag companies would purchase them, and some did. So—at least in numbers of potentially available merchant ships—the United States ranked number one in the world following World War I. But the country never followed through on this advantage.¹⁹

Unfortunately, the period 1920–36 saw the U.S.-flag merchant marine dramatically decline once again. Although the federal government now included a Shipping Board designed to support U.S.-flag shipping, the board had no authority or funding to provide direct aid to the ailing industry. A Merchant Marine Act in 1928 established subsidies in the form of mail contracts, but this program, like its predecessors, was a failure; mail subsidies were awarded without regard to the needs of U.S. commercial shippers or the postal service.²⁰

By the mid-1930s, the condition of the U.S. Merchant Marine was dire. The Great Depression had wreaked havoc on U.S. trade. Nearly all U.S.-flag ships in international trade were old and obsolete. The numbers and types of vessels were totally inadequate to handle even a tiny portion of U.S. trade, let alone sustain the nation or its military in a national emergency. However, the Roosevelt administration and leaders in Congress instinctively knew this, and with war clouds

looming on the horizon in Europe and Asia they decided to take decisive action. The result was watershed legislation: the Merchant Marine Act of 1936.²¹

The relevant text of the 1936 act opens as follows (emphasis added):

SECTION 101. It is necessary for the national defense and development of its foreign and domestic commerce that *the United States shall have a merchant marine* (a) *sufficient to carry its domestic water-borne commerce and a substantial portion of the water-borne export and import foreign commerce of the United States* and to provide shipping service on all routes essential for maintaining the flow of such domestic and foreign water-borne commerce at all times, (b) capable of serving as a naval and military auxiliary in time of war or national emergency, (c) owned and operated under the United States flag by citizens of the United States insofar as may be practicable, and (d) composed of the best-equipped, safest, and most suitable types of vessels, constructed in the United States and manned with a trained and efficient citizen personnel. It is hereby declared to be the policy of the United States to foster the development and encourage the maintenance of such a merchant marine.²²

The Merchant Marine Act of 1936 recognized that it was more expensive to construct vessels in a U.S. shipyard and that operating costs of U.S.-flag ships were higher than those of many foreign-flag operators. Accordingly, the act authorized both construction and operating subsidies. The law also established or expanded existing cargo preference programs, requiring that all military cargoes and a portion of other government cargoes be carried aboard U.S.-flag vessels. The law created the Maritime Commission, the predecessor to the current Maritime Administration (MARAD). Still another major aid contained in the act was the creation of a Construction Reserve Fund (CRF). According to MARAD:

The Construction Reserve Fund (CRF), authorized by 46 U.S.C. Chapter 533 (the Act), is a financial assistance program which provides tax deferral benefits to U.S.-flag operators. Eligible parties can defer the gain attributable to the sale or loss of a vessel, provided the proceeds are used to expand or modernize the U.S. merchant fleet.²³

The effects of the Merchant Marine Act of 1936 were both immediate and profound. By the time America entered World War II, U.S. shipyards were building large and ever-increasing numbers of commercially viable ships. After America entered the war it began building commercial ships in record numbers. In total, more than 5,500 merchant ships were built to support the war effort. By the end of World War II, the United States controlled 70 percent of the existing merchant shipping tonnage in the world.²⁴

Once again, however, the United States did not capitalize on this investment or its potential for the U.S.-flag merchant marine. In 1946, Congress passed the Ship Sales Act. This act set up a priority system for the sale of the “surplus” commercial

vessels built in U.S. shipyards for the war effort. Buyers included domestic and foreign shipping companies that had lost part or all of their commercial fleets during the war. The intent of the Ship Sales Act was to enable allied countries to recover from the war. They could use these ships, purchased at low cost, to reestablish their trade by carrying cargo in global trade, thereby earning hard currency (dollars).

Ultimately, some of the ships sold under the Ship Sales Act ended up flagged in Panama and Liberia. Companies and individuals created “flags of convenience” (FOCs)—a system that guaranteed U.S.-flag vessels could not compete against FOC ships. Profits from vessels registered in FOC nations were tax-exempt; crew wages were kept extremely low; and vessel inspection, safety, and maintenance standards were minimized.²⁵

While, in the eyes of many, the Ship Sales Act of 1946 achieved many of its goals, the act also limited the ability of the U.S.-flag merchant marine to capitalize on the massive investment America had made during World War II in creating the world’s largest merchant fleet.²⁶

Not surprisingly, during the 1950s and 1960s the U.S. Merchant Marine slowly declined from its postwar size and capacity. Federal aid to U.S.-flag shipping continued as outlined in the Merchant Marine Act of 1936, but this was insufficient to prevent the dramatic and sustained rise of FOC shipping. Slowly but surely the majority of the world’s merchant ships became flagged in FOC nations or states whose national fleets were government owned.

The last major piece of legislation promoting the U.S. Merchant Marine (and the U.S. shipbuilding industry) was the Merchant Marine Act of 1970, signed into law by President Nixon. The main purpose of the 1970 act was to promote the construction of U.S.-flag ships in U.S. yards by providing construction subsidies to traditionally nonsubsidized U.S.-flag carriers. The act also authorized carriers to establish “capital construction funds” (CCFs) into which they could deposit earnings earmarked for the construction of new vessels, thereby making them tax-exempt.²⁷

According to MARAD—

CCF vessels must be built in the United States and documented under the laws of the United States for operation in the Nation’s foreign, Great Lakes, Short-Sea Shipping or noncontiguous domestic trade or its fisheries. Participants must meet U.S. citizenship requirements.²⁸

In the 1970s, there was a substantial shift in attitude toward the U.S.-flag merchant marine, strategic sealift, and the government’s role in promoting both. From a strategic perspective, military planners were concerned about the continuing decline of the U.S. Merchant Marine. To compound their concern, the

U.S.-flag companies that were still financially healthy at the time were converting, or had already converted, their fleets to containerships, which limited their presumed military usefulness in strategic sealift emergencies. To address these concerns, in 1976 the Ready Reserve Force (RRF) was created.

As MARAD notes,

The Ready Reserve Force (RRF) program was initiated in 1976 as a subset of the Maritime Administration's (MARAD) National Defense Reserve Fleet (NDRF) to support the rapid worldwide deployment of U.S. military forces. As a key element of Department of Defense (DOD) strategic sealift, the RRF primarily supports transport of Army and Marine Corps unit equipment, combat support equipment, and initial resupply during the critical surge period before commercial ships can be marshaled. The RRF provides nearly one-half of the government-owned surge sealift capability. Management of the RRF program is defined by a Memorandum of Agreement (MOA) between DOD and Department of Transportation (DOT).

The program began with 6 ships in 1977, peaked at 102 in 1994, and now consists of 46 ships including: 35 roll-on/roll off (RO/RO) vessels (which includes 8 Fast Sealift Support vessels (FSS)), two heavy-lift or barge carrying ships, six auxiliary crane-ships, one tanker, and two aviation repair vessels. Two RRF ships are homeported in the NDRF anchorage in Beaumont, Texas. The balance are berthed at various U.S. ports. Layberth facilities are leased from commercial sources and by negotiating for government owned facilities. These outported locations are coordinated with military planners and chosen to minimize sailing time to strategic loadout ports. Outported RRF ships are also used as training platforms for cargo handling by Navy and Army units and for homeland security training by various law enforcement agencies.

RRF ships are expected to be fully operational within their assigned 5 and 10-day readiness status and sail to designated loading berths. Commercial U.S. ship managers provide systems maintenance, equipment repairs, logistics support, activation, manning, and operations management by contract. Ships in priority readiness have Reduced Operating Status (ROS) maintenance crews of about 10 commercial merchant mariners that are supplemented by additional mariners during activations. Readiness of the RRF is periodically tested by DOD directed activations of ships for military cargo operations and exercises.²⁹

In the years leading up to the passage of the Merchant Marine Act of 1936 it had been politically accepted that a U.S.-flag commercial fleet was critical to the economic health of America. (The wording of the 1936 act proclaims this.) It was also believed to be essential for the federal government to support the U.S.-flag merchant marine for both commercial and military purposes. However, after World War II support for the U.S.-flag merchant marine gradually waned over the decades. By the early 1980s, current political thinking considered federal subsidies to the industry an anathema. As a result, in 1980, construction

subsidies were suspended, and operating subsidies were withdrawn as existing subsidy contracts expired. The outlook for the U.S. Merchant Marine engaged in international trade was again dire. By 1990, as operating subsidies did expire, numerous ships were withdrawn from U.S. service. Many U.S.-flag companies filed for bankruptcy and ended their services. The U.S.-flag international fleet was headed for extinction.

In response, military, congressional, and other government leaders noted that while MARAD's RRF offered an effective and rapid source of ships for strategic deployment, even the RRF and the sealift capabilities of Military Sealift Command together could not sustain a serious and prolonged U.S. military deployment overseas. As later sections of this article explain, further support from a commercial U.S.-flag merchant marine was and is essential for strategic sealift requirements, as was proven in all American wars of the twentieth century, including Operations DESERT SHIELD and DESERT STORM. Accordingly, in 1996, Congress passed and the president signed the Maritime Security Act of 1996 (MSA), which established the Maritime Security Program (MSP).

The [National Defense Authorization Act] of 2013 requires . . . the Secretary of Transportation, in consultation with the Secretary of Defense, to establish a fleet of active, commercially viable, militarily useful, privately-owned vessels to meet national defense and other security requirements. Authorized annual funding . . . support[s] the operation of 60 U.S.-flag vessels in the foreign commerce of the United States. . . . Participating operators are required to make their ships and commercial transportation resources available upon request by the Secretary of Defense during times of war or national emergency.

The MSP maintains a modern U.S.-flag fleet providing military access to vessels and vessel capacity, as well as a total global, intermodal transportation network. This network includes not only vessels, but logistics management services, infrastructure, terminals facilities and U.S. citizen merchant mariners to crew the government owned/controlled and commercial fleets.³⁰

TODAY'S U.S.-FLAG MERCHANT MARINE AND AMERICA'S ATTITUDE TOWARD THE INDUSTRY

The U.S. Merchant Marine today is a "tale of two fleets." On the one hand, the cabotage laws restricting intra-U.S. shipping to U.S.-flag vessels have ensured that the so-called "Jones Act fleet" is in a relatively healthy position, because potentially lower-cost foreign-flag shipping is excluded from this transportation market. On the other hand, the U.S. Merchant Marine engaged in international trade is essentially on life support. All the ships in international trade rely on the MSP or cargo preference. With fewer than eighty-five U.S.-flag ships engaged in international trade, the U.S. Merchant Marine carries less than 2 percent of

America's import and export commerce. In other words, taken as a whole, the U.S. Merchant Marine would not exist without the protection and incentives provided by law—some of which have been in place since the early years of the Republic. So how does this sit with the American public?

As was noted earlier, during the colonial period in America and during the first several decades after the founding of the Republic, America thought and acted as a maritime nation. Americans largely lived near the sea or major inland rivers; they thrived because of waterborne trade; and they knew they must have unfettered access to ships and shipping. This meant possessing a U.S.-flag merchant marine. As America grew in the nineteenth century, so too did its merchant marine—by midcentury it carried over 80 percent of America's commerce.³¹ But as America settled the continent in the latter half of the nineteenth century, Americans and America's economy as a whole turned inward from the sea and essentially lost their international maritime focus. Today, although the United States is, physically and geopolitically, a maritime nation (surrounded by the sea on three coasts; with a fourth coast on the Great Lakes; with its newest states—Hawaii and Alaska—accessible primarily by water; and possessing commonwealths and territories on the sea), Americans are not maritime-minded people; they are continentally minded people. Lest anyone think differently, conduct a quick survey of just about any group of Americans with questions such as these:

1. What is the merchant marine?
2. How did your new flat-screen TV, manufactured in Japan, get to your local store?
3. What is strategic sealift?

The point will quickly be made. This situation is strange given that, excluding trade with Mexico and Canada, over 90 percent of America's international trade travels by sea on merchant ships.

The result of America's lack of a maritime psyche means the nation as a whole does not comprehend the value and need for U.S.-flag shipping. To be sure, the nation does in general understand the importance of its Navy. In the last century and this one, the U.S. Navy has been engaged in so many wars and conflicts that most Americans clearly see it as a vital American asset, one that protects the security of America and its allies and projects national power abroad. As noted earlier, the great naval theoretician Alfred Mahan believed that maritime nations should support, in every way possible, their navies and their merchant fleets in order to develop, expand, and defend their power and wealth. But in America, except for a small number of military, political, and maritime leaders, we have lost appreciation for the second part of what it means to be a maritime power: both navies *and merchant fleets* are critical components.

Maintaining a navy costs money, and because of standards of living and labor rates it costs more to build and operate U.S. Navy ships than it does navy vessels in other countries. Yet relatively few question the need for these federal expenditures because the public clearly understands the mission and purpose of the U.S. Navy. Building up and operating a U.S.-flag merchant marine—one that, in the words of the Merchant Marine Act of 1936, is “sufficient to carry its domestic water-borne commerce and a substantial portion of the water-borne export and import foreign commerce of the United States”—would require similar federal assistance in terms of funding and other support programs. Simply put, it costs more to build and operate U.S.-flag ships because foreign-flag vessels, particularly FOC vessels, can operate with very-low-cost labor and pay little or no tax on revenues.

That Americans in general do not understand the critical importance of U.S.-flag ships to the strategic and economic health of America is clear. Some even suggest that Mahan was wrong when he stated that a commercial merchant fleet, flagged within the country, is an essential component, along with a strong navy, of maritime power. This line of thinking suggests that maritime power can be based solely on the strength of a country’s navy. In other words, these commentators suggest that “Mahan is in need of revision.”³²

Numerous books and articles have been written not only deriding federal support for a U.S.-flag merchant marine but going further, to suggest that a U.S.-flag merchant marine isn’t even necessary for either economic or military reasons. A recent Heritage Foundation article, for example, suggests that “[t]he Jones Act drives up shipping costs, increases energy costs, stifles competition, and hampers innovation in the U.S. shipping industry.” The article also, curiously, suggests that “[t]he Persian Gulf conflict in the early 1990s proved that the Jones Act was not a necessary element in supplying and sustaining a military operation.” The article further asserts that “the Jones Act and its supporters inadvertently hinder national security.”³³ While it may have been written in the spirit of free-market competition, this article fails to consider the economic and strategic roles of U.S.-flag shipping, and critical analysis does not support the report’s conclusions.³⁴

People and organizations who call for exclusively free-market competition argue that, along with all other economic sectors, marine transportation (including both international and domestic shipping) should operate completely within the free market. “Let the lowest-cost operator provide the service,” the reasoning goes. “If we allowed this to happen, transportation costs for American exporters and consumers related to importing and exporting goods would be reduced—right?” In a perfect world, the answer would be yes. However, consider this: Should we eliminate the “Jones Act–like” provisions that limit service on domestic air routes to American air carriers? Perhaps we should also allow

foreign trucking companies and railroads unrestricted access to our territory? Let international air carriers offer services to and from all American airports. Let foreign trucking companies and railroads have complete access to the American transportation network. Wouldn't this lower the cost to American consumers? It probably would.

But what would the picture eventually look like if, in keeping with free markets and in pursuit of cost efficiencies, we dispensed with all laws that protect U.S.-flag shipping, U.S.-flag air carriers, U.S. trucking, and U.S. railroads, as well as those laws that restrict employment to U.S. labor? In time, American skies, waterways, roads, and rails would be dominated by foreign carriers, because services in the transportation industries can be performed more cheaply by some foreign competitors. Quite possibly there would be no American transportation carriers—they would be driven out of business. While this might seem an unlikely scenario, in a purely free-market situation it would in fact be quite likely to occur.

Most readers of this publication will quickly understand the danger in which this would place the American economy, to say nothing of the threat to American security and the loss of American jobs. Yet opening maritime shipping to international carriers for domestic as well as foreign commerce does not seem to concern most Americans. Americans, being largely not maritime minded, do not understand how critical the American shipping industry is to the strategic and economic health of the nation.

SO WHY IS A U.S.-FLAG MERCHANT MARINE IMPORTANT?

To begin with, in simple terms, the U.S. Merchant Marine matters because U.S.-flag ships in international trade guarantee reliable access to shipping for exports from and imports to the United States. The more U.S.-flag ships there are, the more reliable the access; the fewer U.S.-flag ships there are, the less reliable that access might be. This applies to both economic and strategic sealift.

Regarding strategic/military sealift, most—although admittedly not all—people with knowledge of the industry understand that a U.S.-flag merchant marine is critical. The performance of the U.S. Merchant Marine in the twentieth century in two world wars, Korea, Vietnam, the Gulf wars, and several other global conflicts has clearly highlighted the reliable and efficient nature of our merchant marine in times of national conflict. Those who suggest that the military can rely in part or in total on foreign-flag ships to carry military supplies in a U.S. national emergency do not understand two key points (laid out below, with subpoints).

First, foreign-flag vessels and crews cannot be counted on to sail into harm's way during a "hot war" in which merchant ships may come under fire because they are supporting the U.S. military. Despite the relatively benign military

environment of the Persian Gulf during the Gulf wars, foreign-flag ships chartered by the U.S. military did, on occasion, refuse to deliver cargoes;³⁵ in an environment in which merchant ships are actually being fired on, it is unlikely foreign-flag ships could be relied on at all. This would be particularly true if merchant shipping were being sunk by enemy action. During the Falklands War, in the aftermath of the sinking of the U.K.-flagged commercial containership *M/V Atlantic Conveyor*, the British would have been severely challenged to charter a foreign-flag vessel for sealift. In today's world, with a widening array of antiship missiles, the proliferation of conventional diesel-powered submarines, and other antiship capabilities, the sinking of merchant ships in an armed conflict would be very likely. The fact that this has not occurred in recent conflicts is pure happenstance. In conflicts involving military sea lines of communication and logistics involving merchant shipping, destruction of shipping is still a priority for military planners in all countries.

Second, for political or economic reasons, there may be no available foreign-flag ships to support U.S. military deployments or sustainment. Because of the circumstances of particular conflicts, flag states (including FOC nations) may refuse to allow their vessels to enter a war zone so as not to offend an ally or related business interest. In war zones, risk—and the resultant marine insurance rates—may rise to a level at which vessel operators and flag states are unwilling to allow their vessels to enter therein. Additionally, there may be no foreign-flag vessels available because operators do not wish to charter vessels to the U.S. military because they will lose market share from their regular, existing customer base and trade routes. In the highly competitive world of ocean shipping, market share is important. From a foreign operator's perspective, carrying U.S. military cargoes, even at premium rates, may be a poor business decision in the long term, which may discourage foreign-flag owners and operators from even considering such an option. In any case, for some or all of these reasons, the U.S. military could find itself in a situation in which foreign-flag shipping is not an option to support U.S. military operations.

WHAT CHINA HAS LEARNED

With U.S.\$3.82 trillion in imports and exports (in 2013), the United States ranks just behind China as the largest trading nation on earth.³⁶ Less than 2 percent of America's overseas imports and exports are carried aboard U.S.-flag vessels. While some Americans with knowledge of the industry support a U.S.-flag merchant marine for military strategic sealift reasons, many of these same folks believe America can rely solely on foreign-flag shipping for the nation's normal commercial imports and exports. After all, hasn't history shown this to be true? Well, actually, it hasn't, as noted earlier in this article. Granted, the circumstances

have been rare, but twice around the turn of the twentieth century (during the Spanish-American and Boer Wars), at a time when America relied heavily on foreign-flag shipping for its international trade, foreign-flag countries and companies withdrew their ships from U.S. service, resulting in a calamitous situation for the American economy. It is certainly possible for this same situation to manifest itself in the globalized world in which we live today.

For a major importing and exporting nation to rely completely on third countries to provide and control its logistics supply chain, including ships, creates a proven vulnerability. History has demonstrated this too often. China's history during the past three centuries provides a clear example.

Six hundred years ago China was the world's first major manufacturing nation. As the West industrialized, the Chinese developed very little interest in Western manufactured goods. Therefore the Chinese had no particular desire to control what would be described in modern terms as their "transportation and logistics supply chain." Instead the Chinese left the matter to others; but ultimately this cost them dearly, as they gradually lost control, or even influence, over their trade. Certainly naval power had a hand in this power shift, but so too did the absence of Chinese commercial maritime shipping capability and the Chinese basic lack of understanding of the importance of controlling commercial sealift and maritime trade.³⁷ This lesson was not lost on the Chinese after they established the People's Republic of China in 1949.

Since 1980, China has become an industrial heavyweight, recently eclipsing the United States in at least one metric as the largest economy on earth. This time around, however, the Chinese have not neglected their maritime industry. In fact, quite the opposite has occurred: the Chinese have developed their maritime industry, including commercial shipping, to the point where they have become the dominant maritime power in the world. With 5,313 oceangoing ships, China has become the number one owner and operator of commercial deep-sea merchant vessels.³⁸ China is also one of the top three shipbuilders in the world—by some metrics number one. In addition, China controls more ports and terminals around the world than any other nation, including terminals on both sides of the Panama Canal.³⁹ And in recent years, China—in true "Mahanian tradition"—has dramatically expanded its blue-water navy to protect its trade routes and commercial shipping, particularly in Southeast Asia and the Indian Ocean.

In other words, China now has military *and commercial* control over its transportation, logistics, and supply chain—its "sea lines of communication." The Chinese learned from their history that a powerful trading nation, to protect its economy and its strategic independence, needs not only to possess a capable navy but to have substantial control of its maritime industry and commercial shipping. This is a lesson that needs to be understood in the United States.

U.S. RELIANCE ON FOREIGN-FLAG SHIPPING

To say that the United States is overwhelmingly dependent on foreign-flag shipping for commercial trade is an understatement. As noted previously, U.S.-flag vessels carry less than 2 percent of the nation's overseas commerce. The United States today would also be dependent on foreign-flag shipping for military and strategic sealift purposes should America face another long-term military conflict. This is particularly true for the strategic transportation of petroleum-related products. There are only two U.S.-flag petroleum-product tankers in international trade, and most of the U.S.-flag tankers that do exist are either crude oil tankers in the Alaska trade or tankers needed for domestic transportation needs.

The lack of U.S.-flag containerships is also a serious concern economically and strategically. Where once there existed a large and diverse number of cargo-shipping companies around the world, the container-shipping industry has consolidated dramatically in recent years. Today, 60 percent of all cargo container shipments are handled by just ten companies.⁴⁰ As a 2014 article noted, according to the rating agency Fitch, the trend in the container-shipping industry is toward further consolidation, meaning that even fewer companies are likely ultimately to carry an even higher percentage of the world's—including America's—cargo containers.⁴¹ Relying on a small number of companies for a critical service creates dangerous dependence in any situation. For this to happen to American shippers is potentially disastrous, as American history has proved. To make matters even worse, large numbers of containerships under construction are megaships with deep drafts exceeding the capacity of U.S. ports, meaning these ships will not be physically able to serve them.⁴²

In summation, the availability of containerships to serve U.S. ports will be restricted if only a small number of companies exist, and if these companies are unable or unwilling to provide service to America for political, military, or physical reasons.

Another damaging possibility facing American shippers is the potential for soaring freight rates. Recall that both of these scenarios—lack of available shipping and high shipping rates—unfolded several times in the late nineteenth and early twentieth centuries and prior to both world wars. The economic theory that assumes that if existing containerships are not available to serve U.S. ports new companies will be established to offer the service doesn't work for the shipping world. The significant capital, long lead times, and specialized expertise and infrastructure necessary to enter the seagoing shipping business do not lend themselves to the entrance of new suppliers into the industry. This state of affairs is evident already in peacetime, with the industry consolidating into a relatively few companies worldwide.

EFFECTIVELY CONTROLLED U.S. SHIPS

Some refer to ships owned by Americans and U.S. interests but flagged in other countries—particularly FOC countries—as “effectively U.S.-controlled ships,” or “EUSC ships.” Over the years, the conjecture has been that these vessels would be available to the United States in times of national emergency. In fact, reliance on the availability of EUSC shipping has been a long-standing policy of the armed forces’ Joint Chiefs of Staff. In 1989, for example, President George H. W. Bush signed a National Security Sealift Policy that reiterated an expectation of support from EUSC shipping.⁴³

The problems with relying on EUSC shipping are twofold. First, while owners of EUSC shipping might theoretically be willing to support the United States in a national emergency, there is no guarantee the flag states of EUSC vessels would allow their vessels to be used to support U.S. interests or objectives. For example, the Chinese have numerous business interests in Panama, the country with the largest number of merchant vessels under its flag. China owns 534 vessels under Panamanian flag.⁴⁴ A Chinese company operates the two major marine terminals on either end of the Panama Canal.⁴⁵ For these reasons, the Panamanian government might be reluctant to allow the United States to use any vessel under Panamanian registry in a conflict between the United States and China. Further, EUSC vessels are crewed by foreign nationals, not Americans, and there is certainly no guarantee that foreign crews would be willing to serve on EUSC vessels in a U.S. conflict.

In any case, because of U.S. tax laws passed in 1979 and 1986, American owners of EUSC ships can no longer avoid paying taxes on their income. As a result, the number of EUSC ships has dwindled dramatically during the past two decades. Simply put, there are fewer American citizens involved in EUSC shipping than in past decades, to the point where it is no longer a viable source of ships for America in times of national emergency.⁴⁶

THE U.S.-FLAG MERCHANT MARINE IS A STRATEGIC INDUSTRY

This article has briefly outlined the history of the U.S. Merchant Marine, and it has shown that without a sizable U.S. Merchant Marine capable of carrying “a substantial portion of the water-borne export and import foreign commerce of the United States,” as prescribed in the Merchant Marine Act of 1936, America is vulnerable both economically and strategically. This has been borne out in numerous cases over the past 150 years, and it has been noted many times through the years by administrations and members of Congress from all parties and by military and maritime leaders.

Although some may not consider it to be such, the American merchant marine is a strategic industry. Our economy, more than ever, is dependent on reliable

commercial shipping for import and export commerce. Our military is reliant on commercial sealift to ensure it can project American power around the world. Without available shipping, America would be in a serious situation—as we have been several times in the past two centuries. The impact on our economy of a lack of commercial shipping could be very serious. Accordingly, the American merchant marine should be viewed as a strategic industry.

There are numerous other American industries that, because of their importance to the nation, are understood to be strategic industries, and most if not all receive federal support in one form or another. The agricultural industry, for example, receives various subsidies to ensure that farming remains a viable profession—so America can feed itself. The energy industry receives subsidies, tax deductions, credits, and land leases that encourage companies to find new sources of energy and develop more efficient and economical means of energy production, and pipelines receive grants for safety and infrastructure improvements—so America can power itself. The transportation industry receives many subsidies: highways and roads receive billions of dollars a year for construction and maintenance; railroads receive subsidies through land and infrastructure grants and loans; passenger rail (Amtrak) receives operating subsidies; transit systems receive federal funding for construction and operation; the aviation industry receives large grants to support airport construction and maintenance, safety systems, and air traffic control—so America can keep its economy moving. A review of the General Services Administration's *Catalog of Federal Domestic Assistance* provides details on the 2,277 federal assistance programs to industries—many of which are considered strategic.⁴⁷

The maritime industry does receive limited federal funding through the Maritime Security Program and various grants to ports and domestic operators. Some federal support is also provided through a limited number of tax incentives. MARAD is funded to provide for a fleet of forty-six strategic sealift vessels in the RRF. However, in total, the U.S. Merchant Marine receives only a minuscule amount of federal support. It is certainly not enough to encourage the expansion of the U.S.-flag fleet. In fact, the reverse is true. Federal support to the U.S. Merchant Marine engaged in international trade is so limited that the fleet continues to shrink to levels that are unacceptable from the standpoint of America's strategic and economic sealift security. This is a serious problem, considering the critical importance of commercial shipping to the American economy and military, and the present vulnerability created by reliance on foreign-flag shipping, with its potential for service disruption.

America doesn't necessarily require a U.S.-flag merchant marine capable of carrying a *majority* of U.S. imports and exports; but if the language of the Merchant Marine Act of 1936 were upheld, and the U.S.-flag merchant marine carried

“a *substantial* portion” of U.S. commerce (emphasis added), this would reduce economic and military reasons for concern regarding potential disruptions in shipping, thereby improving America’s security.

Ways of promoting the U.S. Merchant Marine and substantially increasing the number of U.S.-flag ships in international trade are available. One is to provide additional tax incentives to U.S. carriers, perhaps along with shipper tax incentives. Existing laws and regulations that discourage operators from flagging their ships in the United States could be revised. None of these efforts would require additional appropriations. As far as tax incentives are concerned, the U.S. Treasury is not currently benefiting from foreign-flag operators paying taxes, so having similar tax breaks for a larger number of U.S.-flag operators would have no significant impact on tax revenues.

CONCLUSIONS

During the past two years, MARAD has undertaken a major effort to create a National Maritime Strategy designed to promote the U.S.-flag shipping industry, particularly that part of the industry engaged in international trade. The MARAD effort has been conducted in an inclusive way that has involved listening sessions and meetings with industry, military, government, and congressional leaders. As noted previously, Congress also mandated the development of a new National Maritime Strategy in the Howard Coble Coast Guard and Marine Transportation Act of 2014.

It is clear that, since the founding of our nation, political, military, and maritime leaders have understood the importance of the U.S. Merchant Marine and realized its strategic and economic importance to America. A survey of American history reveals periods when the industry was supported, and it thrived; in contrast, during periods when the industry was not fully supported, it languished and declined. Like those of any maritime nation, America’s economy and military power are, in part, based on our ability to control and manage commercial sealift.

Alfred Mahan was right: a substantial and capable U.S.-flag merchant marine and a powerful navy are equally important components of maritime power. This is a lesson that has been reinforced time and time again in American history. Simply put, America’s national security depends on both. It is time to commit to a new and comprehensive National Maritime Strategy to rebuild America’s merchant marine. We must learn from our maritime past, for, as the eighteenth-century Irish statesman Edmund Burke once said, “Those who don’t know history are destined to repeat it.”

NOTES

The views expressed in this article are solely those of the author and do not necessarily represent those of the U.S. government, the U.S. Department of Transportation, its modal agencies, or the Naval War College.

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SYSTEMS OF DENIAL

Strategic Resistance to Military Innovation

Andrew Hill and Stephen Gerras

Successful organizations can be extraordinarily persistent and creative in denying the obvious, ignoring signals that suggest a need to challenge key strategic assumptions. The U.S. military has been the world's unrivaled force for twenty-five years, even lacking a peer competitor in some domains—naval operations, for example—since 1943. A danger of such sustained success is that the military might come to view these strategic assumptions not as ideas requiring continual reassessment but as enduring laws. The current and future strategic environments demand that the military innovate and question its strategic assumptions, not because we know that they are wrong, but because every theory of competition eventually succumbs to new facts.¹ The military should be extremely

sensitive to the risks of believing things that are no longer (or may never have been) true; yet it is particularly vulnerable to persistent denial, and the wartime consequences of such errors are dire.

These assertions are not ours. The 2014 Quadrennial Defense Review (QDR) mandates that innovation within the Department of Defense (DoD) be a central line of effort. In his assessment of the QDR, Chairman of the Joint Chiefs of Staff General Martin Dempsey states, “With our ‘ends’ fixed and our ‘means’ declining, it is therefore imperative that we innovate within the ‘ways’ we defend the Nation. Successful innovation, particularly for an organization as large and complex as

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the U.S. military, is difficult.”² DoD leaders are also concerned about the alignment of current military concepts and capabilities with a dynamic environment.

This article explores how successful organizations focus organizational energy and attention on refining their dominant theories of competition, often resulting in dysfunctional organizational responses, or *systems of denial*, to strategic anomalies—inconvenient information—that contradict assumptions. Our goal is twofold. First, we apply a novel theoretical approach in seeking to make leaders more aware of a persistent strategic vulnerability—that is, how organizations ignore or dismiss strategic anomalies (events, ideas, or technologies that contradict core strategic assumptions) through three systems of denial: “killing the messenger” by questioning the source of the anomaly; questioning the validity or relevance of the anomaly; and revising the competitive theory to make it more vague and less testable. Second, we describe six ways leaders can create conditions that increase recognition of anomalies, by creating opportunities to see things that are contrary to strategic expectations, as well as to protect anomalies from the organization’s systems of denial. Organizations have a mixed record on both tasks, and dominant organizations, such as the U.S. military, are almost universally bad at the second. Developing appropriate and effective responses is a strategic leader responsibility and a fundamental requirement for leading change and innovation.

INNOVATION VERSUS SYSTEMS OF DENIAL

The U.S. military seeks a sustainable competitive advantage—it wants to win now and in the future. An organization sustains success when its strategy and resources align with the opportunities of the competitive environment. In a stable environment, dominant organizations (e.g., the U.S. military) succeed by becoming better at executing their existing strategies, focusing on increasing efficiencies and improving core capabilities. When the environment changes, however, organizations succeed through innovation—developing and experimenting with novel strategies, and shifting resources to new approaches. These two organizational competencies have been called *exploitation* and *exploration*.³ Yet this presents a paradox: organizations that are good at one tend not to be good at the other.

Dominant organizations have systems that focus organizational energy and attention on exploitation—that is, sustaining the status quo and continuing to improve what they already do. This is a reasonable result of success. However, efficient exploitation often comes at the expense of continued learning and innovation. The ironic effect of systems of exploitation is that they generate dysfunctional organizational responses to inconvenient information, what we call systems of denial.

Unlike a business, most of the time military organizations are not actually engaged in competition; they must manufacture competitive conditions. The wars that the U.S. military imagines and the competition that it manufactures through its scenarios, war games, and simulations reflect its prevalent theories of the security environment and the uses of military force. These theories tend to reflect the military's successes in conflicts that may be of dubious relevance to the current and future security environments. For example, we believe the experiences of Iraq and Afghanistan have been insufficient (perhaps because they were painful) to challenge the military's core assumptions about its required capabilities. After these distractions, the U.S. military has reengaged the exploitation behaviors. It knows what it does well and is determined to continue to do those things. This is good, as long as the things it does well now correspond to the things it actually needs to do. But competitive systems change. The danger for a successful organization is that, absent a significant competitive threat, it tends to fall back on comfortable assumptions and ignore, misrepresent, or manipulate information and innovations that contradict its most-cherished strategic beliefs.

For the U.S. military, sustaining dominance will require significant exploration of the emerging competitive environment. The crucial point is not whether the military has the correct competitive theories right now but what it does when confronted with innovations that suggest its theories may be incomplete or wrong. In peace, the military has the luxury to be wrong for a limited but unknown time, and it is difficult to conclude whether any theory is right or wrong. What does the military do with that time? How does it seek new information? How does its strategy evolve in response to change and innovation? Continued dominance depends on the ability to subject theories of competition to continued, relentless scrutiny. Unfortunately, competitive dominance tends to frustrate this honest exploration.

When something arises that is contrary to our theoretical expectations, it is an anomaly. Though anomalies appear to be failures, they are the essence of progress, because they provoke further inquiry, lead to new discoveries, and may yield new and better theories. Yet organizations often respond to anomalies not by subjecting them to honest examination but by ignoring them, suppressing them, or manipulating the learning process to protect familiar assumptions.

CHALLENGING THEORIES AND CHANGING MINDS

There is no more venerable military tradition than a healthy skepticism regarding new ideas. But such skepticism must be accompanied by openness to new information that would lead us to change our minds and, in the case of strategic leaders, to create conditions in which those discoveries can happen. Furthermore, when information suggests that assumptions supporting the status quo should

be examined, we must be equal opportunity skeptics—we cannot spare the old simply because it is comforting.

The assumptions that guide strategies have achieved that status because they have worked in the past, doing an excellent job of producing expected results, connecting hypotheses to corroborating findings. Theories are discarded when two conditions are met: first, the community of inquiry accumulates a sufficient number of observations contrary to core theoretical expectations (or anomalies); and second, an alternative theory replaces the old system of explanation.⁴ Anomalies arise at various points in the process popularly known as the scientific method: observing; theorizing; deducing testable hypotheses from theory; creating conditions to test those statements (experimentation); observing the results; and refining, revising, or rejecting the theory depending on the outcome.⁵ Once the facts no longer accord with expectations, a theory is discredited, and a theory that better accords with observation replaces it.

What does theory mean in the military context? Theories of military competition are reflected most clearly in operational concepts and doctrine, usually built on what has worked in the past. These theories give us the means to organize and filter the limitless data of the environment. Without them, the world is just disconnected facts. Theories also provide a logical structure from which we can derive predictions, and those predictions guide strategic choice. The early twentieth-century theory of strategic bombing and the Mahanian concept of naval warfare are examples of powerful theories of military competition that allowed military leaders to organize a myriad of information (about technology, force structure, and so on) and to derive predictions that drove strategic and operational decisions.

Yet theories are not simply organizing frameworks. The predictions of a good theory should be testable or verifiable. Finally and crucially, all theories are provisional; a theory is never proven true, but it can at any time be refuted, and just one anomalous result may be sufficient to do it (though more anomalies are usually required). Progress in any field depends on the acceptance of the idea that theories may be wrong—that the conditions that gave rise to a theory can and will change.

Therefore, theories should be expected to die and be replaced on a regular basis, and (in the long term) this appears to be the case. Knowledge increases over time. But the short term (which in scientific history can mean decades or even centuries) seldom conforms to the rational ideal of the scientific method.⁶

Although theories should be subject to the facts, they can survive long after the evidence has contradicted their fundamental assumptions. Why? Theories shape our understanding of the world. The evolutionary biologist Stephen Jay Gould wrote, “Facts do not ‘speak for themselves’; they are read in the light of

theory.”⁷ In other words, “facts” only become facts when we decide, and the timing and content of our decision depend on our theories. We want to learn the right lessons from the past and present, and we want to be prepared for future competition and conflict. Yet “right” is not a fixed concept. The process of learning and anticipation is highly subjective. We seek and interpret facts about the past and the present on the basis of theories of the way the world works. The past and present are not preselected sets of unambiguous facts with transparent causal connections to the present and future. They are more like a gigantic buffet of information, and the gathered facts on our little plates depend very much on tastes and appetites.

For a scientist who reaches the pinnacle of the geology community by describing a world in which the continents do not move, the notion that they do move (plate tectonics) is not simply a different theory; it is a repudiation of his life’s work and the work of his closest colleagues. Impassive acceptance of this kind of change is contrary to human nature. We are social and emotional creatures, preferring to make inconvenient facts (anomalies) subject to our theories. We do this as individuals, and we do this even more in organizations.

These tendencies are particularly important when the theories of a professional community involve competitive systems in which human beings make strategic choices. An organization is a social system with purpose, culture, structure, and resources built around a theory (or theories) of competition. In such complex and adaptive systems, there is no equivalent to the natural laws of the sciences, and therefore theories are much more likely to be wrong. Actors in a competitive system adapt according to the actions of others, changing the behavior of the system as a whole.⁸ Because of these adaptations, all theories of competition must be provisional.

Successful organizations are marked by an almost single-minded adherence to a few core assumptions and are built on an organizational structure and culture that both shape and are shaped by a powerful theory of competition. In the context of sustained success, organizations’ theories of competition can be extremely resistant to new and inconvenient facts. This is even more pronounced for a dominant military, which must imagine or synthetically produce competitive forces in peacetime.

Theories of competition are filters that exclude facts that do not fit the competitive model. Such filtration of relevant and irrelevant phenomena is a core (and necessary) function of theory—no one can pay attention to everything at once. Biologists are unconcerned with gravitational singularities, and economists do not worry about the breeding habits of the mayfly. Problems arise when the theories exclude phenomena that should be core to strategic choice. Military and

business history demonstrates this troublesome legacy of success—that is, when theories that were once the basis for dominance become barriers to innovation and frustrate adaptation, decision makers become structurally blind to significant changes in the environment. The fall of the Polaroid Corporation is a stark example of this.

Through sixty years, Polaroid's business was built on two powerful assumptions: consumers wanted a physical photographic print to preserve a moment, and they valued instant gratification.⁹ Polaroid was served well by these theories. In the world of instant photography, there was Polaroid and nothing else. And then Polaroid was gone, destroyed by the advent of digital photography. The digital photography revolution corroborated one of Polaroid's strategic assumptions—the value of instant gratification—but it completely refuted the notion that consumers needed a physical print. Curiously, Polaroid pioneered some key digital imaging technology and was an early developer of a highly capable digital camera. Yet these innovations were ignored and misunderstood, as they did not conform to Polaroid's theory of competition. Polaroid's final investment in digital photography was a compact ink-jet printer to produce the physical print from the digital camera, demonstrating the firm's continued adherence to the dubious assumption that consumers needed a physical print.

Similarly questionable assumptions have provoked crises for militaries. Consider the following, apparently unobjectionable statements: victory at sea depends on the destruction of an enemy's fleet; freed from a tyrant, a liberated people will welcome and cooperate with its liberators.

The first concept was the guiding assumption for Royal Navy strategy at the start of both world wars. In both conflicts, the German navy circumvented the Royal Navy, avoiding direct engagement and focusing its efforts on building U-boat force structure and antimerchant operations.¹⁰ The Royal Navy's slowness in recognizing the German submarine threat to merchant shipping, and its delay in adopting convoy tactics, nearly brought the British war effort to ruin twice within a twenty-five-year span.¹¹ These crises were rooted in the Royal Navy's view of the protection of commerce as a mission unworthy of its attention and resources.

The second statement describes the core assumptions of American military operations during preparation for the Iraq war and throughout the first three years of the conflict. During the crescendo of violence against coalition forces in Iraq from 2003 to 2006, U.S. military and civilian leaders insisted that attacks were carried out by foreign fighters or that there was no Iraqi insurgency.¹² American policy makers and military leaders could not effectively respond to rising violence in Iraq until they recognized its sources. Why did they take so long to do so? In the absence of discovering weapons of mass destruction, the most important justification for the war was the liberation narrative, which included the

assumption that a liberated people does not kill the liberators. Acknowledgment of the insurgency contradicted the dominant theory of the political situation in the country and, as a result, delayed changes in American strategy for three years.

In both military cases, the organizations persisted in their erroneous assumptions as they followed a path of systematic denial, despite evidence that their assumptions were wrong. This persistence is destructive, yet avoidable. It is one thing to suffer catastrophe because of the unforeseeable.¹³ It is another to suffer it because we—repeatedly, over an extended period—refuse to see what is right in front of us.

In highlighting how an excessive commitment to the dominant current theory perverts organizational learning, we do not argue for reflexive abandonment of key strategic assumptions. Chaos results from the instantaneous abandonment of core assumptions in response to contradictory information. The key is to do it right. We now turn to what “wrong” looks like.

THE SYSTEMS OF DENIAL AT WORK

The U.S. military does not have a monopoly on the stubborn adherence to an erroneous theory. The history of science is rich with examples, and the methods by which scientific communities resist theoretical innovation are instructive. Philosophers of science, such as Karl Popper, Thomas Kuhn, and Imre Lakatos, have examined the social dynamics of scientific communities and theoretical progress.¹⁴ Kuhn’s work on scientific revolutions and paradigm shifts has been imported to the social sciences. However, Popper’s and Lakatos’s influential frameworks for examining how theories are refuted have been largely ignored.¹⁵ Adapting to the military context what Popper called *conventionalist strategies* for defending existing theories against contrary evidence helps us identify three dysfunctional responses, or systems of denial, that occur when organizations are confronted with information that challenges their core competitive assumptions.¹⁶ That is, organizations tend to do the following:

- Question the intentions, authority, or legitimacy of the source (colloquially, “killing the messenger”).
- Question the validity, generalizability, or applicability of the information (“that doesn’t apply to us”).
- Revise the theory to make it less testable (and more resistant to refutation).

These responses are not in themselves bad. Indeed, each is a fundamental part of legitimate inquiry. But they can be misapplied, as often happens in the defense of established theories and concepts against an onslaught of information that undermines them. Such dysfunctional responses to anomalies are predictable, destructive, and preventable.

Killing the Messenger: Questioning the Source of the Anomaly

All inconvenient facts come from some source. If the source of an anomaly is not believable, then we are freed from the burden of dealing with the anomaly itself. Successfully undermining the source of an anomaly requires that we not only convince ourselves of the unreliability of the source but also persuade other key stakeholders of that fact.

Lieutenant Colonel Douglas Macgregor's 1997 book, *Breaking the Phalanx*, criticized U.S. Army structure, culture, and strategy, and recommended significant change.¹⁷ Macgregor was subsequently dismissed as a complainer with a myopic worldview (at best), or treated as a heretic (at worst).¹⁸ "Killing the messenger" can be accomplished in three ways: attack his *legitimacy* by questioning his credentials; attack his *credibility* by asserting that the source has bad intentions; or make *ad hominem* attacks.

When attacking a source's legitimacy, we question his qualifications in making statements or presenting data, based on professional credentials, experience, seniority, etc. This approach is preferable to assaults on credibility or *ad hominem* attacks, because it seeks to discredit someone on the basis of impersonal considerations. Convincing people that the messenger does not have the required expertise or knowledge fully to understand the phenomenon ends the conversation. Failing that, we can usually argue that the messenger is not privy to the critical information that enables us to understand the situation more fully. In the military, a hallmark of this tactic is invoking classification restrictions—for example, "If he knew what we knew, he would agree with us."

A second approach to undermining a source is to question his credibility, casting doubt on trustworthiness or intentions. We may assert malice of intent, self-interest, mixed loyalties, or conflicts of interest. Contending that a source wants to undermine the organization or that a source benefits from actions taken as a result of a change makes it easier to dismiss the source's criticisms. Questioning credibility suggests corruption in the source's specific motivations—for example, "John Doe is criticizing the Army because John Doe hates the Army."

A third means of discounting a source is a simple *ad hominem* attack. As defined here, *ad hominem* attacks suggest corruption in the source as a whole. Whereas in a credibility attack, we question motive, in an *ad hominem* attack, we seek to undermine the source completely—such as "John Doe is criticizing the Army because John Doe is an idiot." *Ad hominem* attacks generally take one of two forms: abusive or circumstantial.¹⁹ Abusive attacks, such as "John Doe is an idiot," involve unambiguous statements that question a source's mental competence, character, honesty, etc.; in circumstantial attacks we indirectly suggest corruption in a source. Because preserving and propagating ambiguity are one of the core principles of resisting anomalies (clear statements can be refuted),

circumstantial attacks are more devious (and effective) than directly abusive attacks. Guilt by association, in which we note that a source is part of a community or organization widely regarded in a negative light, is a classic circumstantial attack. For example, saying, “He gets most of his ideas on the role of the military from his State Department friends,” may convince many in the military that the messenger is not to be trusted.

While questioning the source is the easiest way to dismiss an anomaly, it also incurs risks. When a large, powerful organization is perceived to attack a less powerful outsider or a maverick within the organization, the sympathies of key stakeholders may be swayed by the natural tendency to root for the underdog. For this reason, when effective proxies are available to question a source’s legitimacy or credibility, or to attack the source’s character, they tend to be used. Those who allow others to do their dirty work for them are more likely to appear to be impartial observers.

“But They’re Not Us”: Questioning the Data

Having failed to reject the anomaly on the basis of the messenger, we may question the validity of the data. Three classic strategies for challenging data, in order of difficulty, are, first, question the results on procedural grounds (“they did it wrong”); second, question the generalizability of the data (“it doesn’t apply to us”); and third, dismiss the results on the basis of contradictory replication studies (“we tried it ourselves, and it didn’t work”). All three of these arguments may be legitimate challenges to inconvenient information, but they may also be abused.

Procedural challenges to data involve questioning the way in which the data were gathered—focusing on the conduct of the experiment, simulation, war game, etc. They free organizations from the necessity of analyzing the results of an experiment or the character of the phenomenon. If the outcome is the result of nonstandard inputs, then we have an easy escape: “They did it wrong, so the results don’t matter.” The complexity of the inputs in competitive environments provides myriad opportunities to dismiss data on procedural grounds. Look hard enough, and a leader can always find something objectionable in the way that a result was produced. The list of excuses is long.

Even in wartime, when current operations should provide unambiguous evidence of failure, militaries have a great capacity for denial. In the first years of World War II, the U.S. Navy Bureau of Ordnance refused to acknowledge that its Mark 14 torpedo was fundamentally flawed, despite submarine crews’ repeated reports of failures. The torpedoes ran too deep and were equipped with a flawed magnetic exploder, and “the contact exploder was so fragile that a direct hit was sufficient to destroy it without causing the torpedo to explode.”²⁰

In the meantime, the bureau blamed the crews, concluding they must be using it improperly—a procedural objection to the data. When the bureau finally sent an officer to observe whether the error indeed lay with the crews, he was unable to find a single fault with the crews' actions; yet his report still placed all the blame for the torpedo problems on the personnel.²¹ Not until the summer of 1943 would a new design resolve the torpedo problem. If this is what military organizations can do in a time of war, when lives are being lost, what are organizations capable of explaining away in less dire competitive contexts?

Failing to dismiss the data on procedural grounds, we can question the generalizability of the data themselves; that is, we must demonstrate that the data do not apply to us, usually by arguing against an analogy. The potential arguments against an analogy are too numerous to catalog here; we highlight two broad objections.

First, we may argue that the competitive context—the time, the place, the product market, the economic conditions, etc.—is too different for a valid comparison. For example, American car manufacturers could have glimpsed their own future in the near bankruptcy of Harley-Davidson motorcycles in the early 1980s. From 1972 to 1982, Harley-Davidson's U.S. market share in motorcycles with an engine displacement exceeding a thousand cubic centimeters dropped from 100 percent to 14 percent, as Japanese imports offered better performance, fuel efficiency, and reliability—all at lower cost. But motorcycles are not cars, and Harley-Davidson's brush with corporate death was little noted by auto manufacturers, except in its demonstration of the appeal of protective tariffs.²²

Second, we may argue that a difference in one of the key actors makes a comparison invalid. In this case, we acknowledge that the competitive context is comparable, but one of the competitors is not. For example, when a Southeast Asian guerrilla force defeats a European ally armed with American weapons and fielding an army with veterans of the 1944–45 European campaign in key positions, we dismiss it because the French are a colonial power in decline, lacking the righteous purpose and military strength of the United States.²³ The French experience in Vietnam is therefore judged as irrelevant to American strategy. Arguing against the generalizability of an anomaly is easy; the complexity of competitive environments provides numerous candidates.

The final means of questioning data is through a replication study that is engineered to fail—that is, to try to reproduce an anomaly in an environment that we control, to demonstrate that the anomaly is not real. Although the spirit of a replication study is (not surprisingly) to seek to replicate the result of someone else's study or experiment to corroborate a finding, an organization often uses one to get the result that it wants. In the early twentieth century, a young American naval officer named William Sims sent the Bureau of Ordnance reports documenting

astounding feats of naval gunnery that were based on modifications to equipment and training that he adopted from the Royal Navy. The U.S. Navy initially ignored his reports, but Sims persisted. Finally, he was told that his reported results were simply impossible. The Navy, it turned out, had conducted a replication study using Sims's suggested modifications and had concluded that Sims's results were impossible, because the gun crew could not elevate and depress the gun fast enough.

The failed replication study reveals the power of organizations to deceive themselves. The Bureau of Ordnance had conducted the trials on land, meaning that gunnery crews were attempting to elevate and depress the gun without the assistance of the compensating roll of the ship; that is, the experiments did not replicate conditions at sea, where the gun is elevated on the down roll and depressed on the up roll. (As one side of a ship moves downward or upward, its motion reduces the force required to elevate or depress the gun at a given rate.) Intentionally or not, the bureau ensured that it would arrive at the answer it wanted.²⁴

The Shape-Shifting Theory: Resisting Refutation through Constant Theoretical Change

It is possible that none of the aforementioned systems of denial will work. The source may be reliable (or assaults against him may fail). The data may be impossible to ignore. Does this necessitate abandonment of core assumptions? No. In the event that we start to lose the game, we can always change the rules. The last refuge of a weak theory is the revision of the theory, usually to make it less testable.

Theoretical revision is not necessarily a bad thing—revising a theory in the face of disconfirming information may be exactly the right thing to do. A single meaningful result that is contrary to expectation may be sufficient to refute a theory, but mature theories are seldom abandoned on the basis of just one anomaly. Instead, when an anomaly is accepted as a legitimate challenge to the theory, we prefer to revise the theory first—replacing it with another theory as a last resort. A successful theory makes predictive statements (if x , then y ; or $[x \rightarrow y]$). Theory revisions modify these statements (while preserving the core theory) in one of three ways: redefine the outcome, redefine the phenomenon, or add auxiliary hypotheses.

The distinction between the right and wrong ways to revise a theory is simple: proper revisions to theory yield hypotheses that are more testable than they were prior to the revision; improper revisions yield hypotheses that are less testable.²⁵ Indeed, “last refuge” revisions often result in changes that make testing the theory extremely difficult, if not impossible.

Redefining outcomes and redefining the phenomenon are ways to reframe the success or failure of a theory and produce moderate reductions in testability. These tactics capitalize on the complexity and ambiguity of the strategic environment—the more complex a phenomenon, the greater the potential for disagreement regarding basic concepts such as success and failure, or the essential characteristics of the phenomenon itself.

When we redefine the outcome, we change our definition or interpretation of success and failure (changing our definition of y in $[x \rightarrow y]$). If a theory does not produce its predicted result, or if some other theory challenges it, we simply change the desired outcome to make the dominant theory appear once again successful, or to make the challenging theory appear unsuccessful. For example, during World War I, the British defeated the German submarine threat by adopting convoy tactics. After the war, the Royal Navy was eager to forget this experience and focus on the kind of naval warfare it liked, epitomized by the battle of Jutland.²⁶ When naval planners reflected on the effectiveness of convoy operations, they emphasized that the convoy escorts had sunk just twenty out of 178 total German submarines destroyed during the war. This amounts to changing the rules of the game. As Holger Herwig observes, “They refused to recognize that what counted was not the number of submarine ‘kills,’ but rather the number of merchantmen safely in port.”²⁷ Under the new performance measure, convoys appeared ineffective and were therefore easier to forget. Redefinition of outcomes may delay refutation by forcing a theory’s opponents to justify prior definitions of success or failure, or to seek to refute the theory under the new definitions (and therefore execute another round of observation and experimentation).

The testability of a theory is also reduced if the new outcomes resist clear measurement or observation. Sometimes an outcome is only partially observable or cannot be observed at all, or it cannot be observed under the desired conditions. This is almost always true of strategic outcomes. Even with a consensus regarding the definition of success or failure, there may be disagreement about what actually happened. What was the outcome of the Iraq war? Who lost? Who won? These are simple questions without simple answers. Many theories of that conflict can find some justification in historical evidence. The potential for redefinition of what “winning” means and for reinterpretation of the actual outcomes is almost limitless.

Redefining the phenomenon (changing our definition of x in $[x \rightarrow y]$) offers another potent means of resistance to refutation. We do not just change the definitions or interpretations of success and failure; we change the entire framework for measurement. If a review of the utility of the aircraft carrier reveals that its core role as the instrument of attack for the Navy has been rendered obsolete by the combination of low-end adversaries that offer few worthwhile targets for

aerial strikes and high-end adversaries who make carriers too difficult to protect within their effective strike range, we may defend the carrier by broadening our definition of what it *is*: not only an attack platform but also a symbol of American power. Thus, the carrier's symbolic value becomes a key measure of performance. Testing this proposition requires that we measure how effective the carrier is as a symbol, but the concept is so fuzzy that it defies measurement. This makes it particularly appealing as a theoretical defense for the carrier concept.

A third approach to theory revision is the modification of the theory itself. We say that x is going to result in y , but when we do x , something unexpected (different from y) happens. In such circumstances, the concept may yet be preserved by adding auxiliary—literally, “helping”—hypotheses to explain y . An auxiliary hypothesis adds conditions to our predictions when our predictions turn out to be incorrect—that is, changing the prediction from $(x \rightarrow y)$ to $(w \ \& \ x \rightarrow y)$. It is not inherently wrong to do this. Indeed, auxiliary hypotheses are a central aspect of the refinement of existing theories.

One of the best examples of proper theory revision comes from nineteenth-century astronomy, when scientists noticed that the planet Uranus's orbit failed to follow the path predicted by Newtonian physics. Instead of abandoning Newton's laws and searching for a better alternative, astronomers postulated that an undiscovered, more distant planet was affecting the orbit of Uranus. Using the actual path of Uranus's orbit, two mathematicians told astronomers where to look, calculating both the probable mass and position of the unknown planet. Neptune was soon discovered very close to the predicted position. Newton's theory was corroborated, but our model for the structure of the solar system had to be revised.

The story of Neptune's discovery illustrates the key characteristic of a good auxiliary hypothesis: it imposes a higher experimental or observational test. Postulating not only the existence of an undiscovered planet but also its mass and position was a precise and highly improbable prediction (i.e., the random chance of finding a planet in that part of space was extremely—almost infinitesimally—low). That the planet was found was a great achievement of the theory of Newtonian physics. Note that we may lack the technical capability to perform the test; for example, it took centuries for astronomers to verify the distances of the stars that were postulated by the adoption of the Copernican system. The key is that an effective auxiliary hypothesis postulates something that drives further inquiry. In resisting innovation, however, organizations often employ auxiliary hypotheses in a way that hinders learning.

The main indicator of a bad auxiliary hypothesis is that it cannot be unambiguously measured or verified, and therefore cannot be refuted. In the years leading up to World War I, the theory of warfare favored by the British and the

French was what historian Tim Travers calls “the cult of the offensive.”²⁸ However, when the British army suffered terrible losses in assaults in the early battles of the Boer War, European observers were disturbed. Why would a continental army trained and hardened by years of colonial warfare and equipped with the latest weaponry struggle so much against an irregular force? The advent of modern firepower (mobile, rapid-firing artillery; accurate, rapid-loading rifles; and machine guns) meant that an advancing force could no longer protect itself with its own fires. At least it appeared that way. To preserve the theory of the offensive, strategists needed to come up with an alternative explanation for why the British failed. A widely articulated auxiliary hypothesis was that the British army lacked the proper spirit to carry out effective offensive operations on the modern battlefield. This explanation arises from procedural objections to the anomaly; in essence, the British did not do it right (“it” being the offensive).²⁹ The beauty of this auxiliary hypothesis is that it has the quality most essential to defensive revisions of a weak theory: it cannot be refuted.

Auxiliary hypotheses can be very effective in providing a theory with an impenetrable barrier to refutation. If we propose, “An attacking force with a ratio of at least five to one within the area of assault will be successful in the assault, regardless of the defensive fortifications and firepower,” we have the potential to be refuted. The ratio is verifiable. A single example of a sufficiently superior force failing in the assault will contradict the hypothesis. However, if we revise the prediction as follows, “An attacking force with *high morale* and a ratio of at least five to one within the area of assault will be successful in the assault, regardless of the defensive fortifications and firepower,” we have compromised the theory. The addition of three small words has made our statement impervious to refutation. Any time an assault fails, we can dismiss it as a failure not of the concept (or training, equipment, etc.), but of morale, a conveniently unmeasurable quality. Irrefutable statements are the hallmark of a bad theory. As the scientist Richard Fortey observes, “The theories that can cause much more trouble are those that can twist and turn in a breeze of new facts without ever fracturing completely.”³⁰

We have described three organizational tendencies that form a powerful system of denial in response to inconvenient information. How can the military avoid making common mistakes in responding to data that contradict its theories of what does and does not work? What can a leader do to discourage these behaviors and encourage the right responses? While there is no simple solution, in the following section we describe six practices that will improve a leader’s chances to “beat the system” of denial, to identify anomalies and follow up with a balanced and thoughtful exploration of what they mean.

SIX WAYS TO BEAT THE SYSTEM (OF DENIAL)

Building organizational skill in recognizing and analyzing novel phenomena is the means by which we seize control of strategic innovation. If we fail to alter our theories in the absence of dangerous competition—when we have the time and luxury to do so—we will be compelled to do it through painful experience, under less appealing conditions. Effective military leaders must create an environment in which organizations identify anomalies in the external environment; seek anomalies through their own exploratory activities; and revise their strategic assumptions (theories of competition) to make them more testable or replace them with alternatives. For these three tasks we recommend six practices and explain them in approximate order of the required commitment in time and resources (low at the beginning, high at the end).

Identify Anomalies in the External Environment

Military organizations must develop sensitivity to anomalies as they arise in the external environment. Yet organizations function by channeling and filtering information, and by directing leaders' attention. These processes are necessary to the normal functioning of organizations; without channels, filters, and direction, we would be overwhelmed by unstructured data. But leaders must develop mechanisms for recognizing important changes that arise outside these channels.

Conduct Formal Thought Experiments with the Help of a Team. On a regular basis, leaders must specify what new information or changes in environmental conditions would cause them to question or abandon their core assumptions. In essence, leaders need to imagine when they would change their minds. This is perhaps the most fundamental of all skills required in leading innovation.

We like to believe that when the facts change, we change our minds. But the recognition of such changes depends on whether we are looking for them, and we find them more readily when we seek them in response to a question that we have already asked. We recommend that at regular intervals, leaders work with a team built specifically for this purpose.³¹ The product of the team's work is a formal description of core strategic assumptions (at least three, no more than five) and events or facts that would invalidate those assumptions. What signals would suggest that assumptions are at risk? At these meetings, leaders and other team members make "reputational bets" about the environment and their strategic assumptions.³² For example, the force structure of the Air Force reflects the technological limitations of munitions. Fighter jets exist not for their own sake but because small, numerous platforms are required to get close enough to strike enemy air and ground forces. Efficient directed-energy weapons would potentially upend this framework, favoring the development of large, "mother ship" platforms that

would destroy targets from great distances using energy traveling at the speed of light. At some point, Air Force modernization and force structure would need to change radically to realize the potential of these weapons. What events in the environment would signal a need to begin such change? A thought experiment is a commitment to reexamine core assumptions when the facts change.

A structured thought experiment serves four important purposes. First, it helps us to identify core assumptions; the principles that lie at the heart of our theories are often so familiar to us that they are invisible. We treat them as laws of nature, never to be questioned, not as assumptions that are inherently provisional. Second, it forces us to make formal commitments to reviewing our theories. Refutation is a matter of degree, not absolutes, and we can always reconcile facts to our chosen theories. Nevertheless, if we say that we shall change our minds if x happens, and x actually happens, then we must either change our minds, or explain how we have adjusted our assumptions to accommodate x . Third, in identifying conditions that would prompt us to change our minds, we become more likely to recognize those conditions if they arise. This is a crucial point: the simple act of naming something makes us more likely to see it. Finally, the thought experiment highlights the parts of our system of assumptions that are *not* subject to facts. We do not wish to denigrate the role of faith (or its close cousin, intuition) in strategy development. However, wherever faith becomes the main support of an assumption, a leader should create mechanisms in the organization through which those who do not share that faith have the freedom, the power, and the resources to challenge the status quo.

Don't Succumb to the Tyranny of Expertise; Institutionalize Brokerage. Leaders must have the wisdom to separate the messenger, however abrasive, from the message. Challenges to orthodoxy are more likely to come from sources that stand outside the dominant strategic system for the very reason that they are outside the system. They are not captured by our theories and are more likely to see emergent inconsistencies between our core assumptions and strategic reality.

First, we must overcome the tyranny of expertise. We may believe that only the experts are qualified to comment on a theory's soundness. However, those who have the strongest credentials under an existing theory also tend to be credentialed by a system that has arisen around that theory. That is, their status as experts is not independent of the theory; it is a product of the theory's success to date. Those we trust the most as experts are often the least likely to recognize and identify anomalies. For instance, Air Force pilots were not the early proponents of unmanned aerial systems.³³

Second, the perspective and openness required to identify potential anomalies, the willpower to create a context for revealing them, and the moral courage

to point them out may be correlated with personality characteristics that make such sources more susceptible to messenger-killing tactics. Those with the confidence and imagination to propose anomalies frequently lack the social intelligence and savoir faire required to persuade audiences of the importance of their insights. Iconoclasts like American military-aviation pioneer Billy Mitchell and British strategist Basil Liddell Hart often fail to differentiate between potential allies and enemies within the organization, alienating those who would support their positions. Anomalies are likely to come from sources that are vulnerable to questions of credibility and legitimacy. Leaders must serve as advocates for such challenging perspectives.

Leaders can foster the development of officers who are sensitive to external viewpoints by institutionalizing brokerage. In social networks, a broker is a node in the network that connects groups that are not otherwise connected. The social theorist Ronald Burt has argued that brokers are more likely to have good ideas because they see actual and potential combinations that others cannot.³⁴ The highly cohesive and almost cloistered networks of military personnel do not lend themselves to creating mental and organizational environments that challenge conventional wisdom.

Institutionalizing brokerage means creating opportunities for members of the organization to work with other entities, particularly those with different theories of competition. This requires that military organizations reward officers with high-quality “broadening” experiences, including not only joint and interagency work but also exchanges with foreign militaries and meaningful service in think tanks, universities, laboratories, and even private firms. Brokerage is about building ties to communities that are more likely to see the environment differently. In this way, the organization is more likely to perceive changes that would usually be filtered out or ignored, and to be exposed to different theories of competition.

Deliberately Seek and Explore Anomalies

Leaders should use internal organizational resources to seek out and explore anomalies, to anticipate and drive change. The two recommendations above seek to increase the probability that organizations will recognize anomalies in the external environment. Yet leaders are not only at the mercy of events—they can shape events, as well.

Experiments are one of the most powerful tools available to organizations, yet strategic leaders seldom take advantage of them, because they lack understanding of experimental design and how to operationalize experimental principles in nonscientific contexts.³⁵ A good experiment must have at least three characteristics: it must vary from normal organizational practices in some fundamental way, and the variance must be isolated to allow for measurement or comparison;

it must have the potential to produce a surprising result; and it must be relevant to the theory—it must have the potential to call into question the existing theory, or to suggest that a new theory offers a better explanation of the phenomenon.³⁶ We recommend the following two practices to leverage the learning opportunities in experimentation.

Create Space for Planned and Unplanned Variance. The more variance we tolerate, the more likely we are to learn. This fact must be weighed against the risks that accompany experimentation. Where we introduce different treatments and how much variance we tolerate are questions requiring serious consideration. We cannot perform experiments that jeopardize lives or undermine public trust, for example. But without variance, there is no experiment.

Leaders are responsible for creating and fostering both formal (planned) and informal (unplanned) variance. Pilot programs, war games, simulations, and experimental units are examples of mechanisms for planned variance. Strategy development is well suited to simultaneous implementation and evaluation of several different experimental interventions—rapid prototyping. Not everything will be fruitful, but what works and what does not work are both learning opportunities. Persistent and widespread experimentation increases the probability that you will find a subset that improves your understanding. Clearly, the wars in Iraq and Afghanistan created opportunities (and necessities) for constant experimentation. The question left unanswered is, to what extent did the results of these experiments change the deeply held assumptions of any of the military services?

A second means to introduce variance is through informal experimentation. The potential for learning from user innovation is tremendous, though it presents its own set of difficulties. Linus's law of software debugging, as interpreted by Eric Raymond, posits, "Given enough eyeballs, all bugs are shallow." By "shallow," Raymond means that a problem is susceptible to solution. More people dealing creatively with problems of discovery "increases the probability that someone's toolkit will be matched to the problem in such a way that the bug is shallow to that person."³⁷ User innovation leverages a similar community of exploration and experimentation, and it requires that leaders tolerate unplanned variance.

Create Conditions in Which Surprising Experimental Results Are Not Just Possible—but Desired. When organizations are biased in favor of confirming their strategic assumptions, experimentation is concerned with validating existing concepts, which may be done through highly engineered exercises that only fail to produce the expected result when somebody makes an error. This is a gross misuse of the term *experiment*. For example, the 2002 U.S. military MILLENNIUM CHALLENGE war games and joint exercises illustrated some effective aspects of experimental design and procedure. The opposing force in MILLENNIUM

CHALLENGE introduced battlefield conditions that varied considerably from normal practice, and the results of this variance were surprising. In these two respects, the experiment was well conceived and executed. Instead of interpreting this information as a signal that the organization should scrutinize its conceptual assumptions, it responded to the surprise by resetting the game, eliminating the problematic variance, and producing the validating result that it desired.³⁸ This was a squandered opportunity. Avoiding this error requires a shift of mind in how we assess success and failure in experimentation. We need to recognize that some failure is noble, and some success is empty.

The challenge for innovative leaders is engineering the competitive context in a way that reveals problems with the organization's dominant theories. In war, the enemy provides that context. In peace, the military must manufacture it artificially through war games, simulations, exercises, etc.³⁹ Effective experimentation requires reframing "winning" in strategy development.⁴⁰ When the goal of exploration and experimentation is innovation, objectives should emphasize outcomes that test established strategic concepts and challenge existing assumptions. In this context, failure in an experiment, whether a war game or a product pilot, should be valued for the opportunity that it provides to revise and refine the concept under examination or to suggest a viable alternative. A leader must persuade the organization that a surprising outcome in a war game or simulation is not just acceptable but desirable. Such surprises are the means by which we identify new problems, create an impetus for change, and develop a structure for innovation. By reframing the objectives of experimentation, organizations will be more likely to discover those new problems.

Experiments should create variance in areas that pertain to meaningful strategic assumptions. In the event that a result contradicts expectations, the experiment should provoke theoretical revision and further experimentation. Leadership owns the strategic assumptions in a military service, and leaders should be intensely interested in challenging those assumptions.

Revise the Theory the Right Way, or Replace It with Something Better

In our first recommendation, we proposed a thought experiment for identifying the conditions that would prompt us to change or modify our assumptions. But what happens when those conditions arise? Our final two recommendations concern how leaders can foster the development of new theories and turn those theories into operational reality.

Make the Old Theory Work for a Living. The way in which we articulate ideas influences our subsequent search for the truth. Recognizing an anomaly and supporting innovation do not require that we abandon established ways of doing things; we always have the option of modifying our current theories with an

appropriate auxiliary hypothesis. The key is to use auxiliary hypotheses not to shore up established theories by making irrefutable statements but to refine theories by increasing their testability, or to develop alternative theories. For example, “All weapons-release decisions require a human input” is a universal statement of a principle governing the use of drones. It expresses a theory about the limits of full autonomy, and it creates a condition in which the theory will be challenged. If we identify a case in which we would accept a fully autonomous kill decision, we have invalidated the principle of universally limited autonomy. At this point, we have two valid options for reformulating our theory.

First, we can add a testable auxiliary hypothesis to the old theory: “All weapons-release decisions require human input when conditions *a*, *b*, and *c* hold.” This creates conditions in which the revised theory is still falsifiable, as will occur when we show that a drone can be fully autonomous under conditions *a*, *b*, and *c*. This is crucial to learning.

The second option is that we scrap our old theory and begin to develop a new theory to explain full autonomy. Innovation becomes a matter of building a new and vaguely defined theory of automation, not a defensive withdrawal to protect the old theory of human control. The move from a theory of human control of kill decisions that has auxiliary hypotheses to a preliminary theory of full automation may take a long time, or it may be swift. Much depends on whether change begins during peace or war.

If we modify a theory in response to anomalies, the modification should always be in the direction of greater testability—that is, the statements that we derive from our modified theory should be more refutable. As noted earlier, organizations tend to do the opposite, making theories impervious to refutation by layering on untestable statements. Leaders set the tone for organizational inquiry. When it comes to challenging our assumptions, the Fabian approach (a military strategy that avoids decisive conflict) to theory defense should not be tolerated. We must be relentless in subjecting our old assumptions to new tests.

Build Organizational Units That Succeed with a New Theory. At the individual level, it is almost impossible to review evidence without bias; our theories are powerful lenses that distort our reading of the facts. Yet leaders can guide exploration at the organizational level to ensure that someone seeks in good faith to verify, reproduce, and expand on the findings of anomalies. Essentially, the leader needs to engineer competition such that at least one alternative theory competes with the established view, and that the two (or more) theories have a level playing field. Adjudicating a theoretical competition is hard, but not having any competition at all is worse.

The creation of organizations that are free to construct a new culture based on new ideas about what works is a powerful leadership tool. In his theory of disruptive innovation, Clayton Christensen describes how established firms can overcome resistance to innovations by creating semiautonomous units that succeed by finding a viable business for a new product.

Established firms are often driven out of business later by new, smaller firms that develop what appear to be inferior or irrelevant technologies in new markets. The smaller firms move into the dominant firms' core market when the innovation improves enough to meet customer requirements in the core business. To avoid this fate, Christensen recommends that established firms spin off an independent organization that lives or dies by the new (and for the time being, inferior) technology. He writes, "Creating an organizational context in which this effort can prosper will be crucial, because rational resource allocation processes in established companies consistently deny disruptive [innovations] the resources they need to survive, regardless of the commitment senior management may ostensibly have made to the program."⁴¹

Successful organizations usually excel at innovating in areas that are relevant to core strategic concepts. However, when an innovation does not conform to the organization's dominant concept, leaders can create organizational structures that support the new approach. This involves creating and resourcing organizations that survive by doing things that meet current market needs and, in the process, identify new markets for their products. Such organizations must do more than just produce good ideas. They must find a market (in military terms, a valid/current mission) for the innovation, an application that demonstrates—even on a small scale—the effectiveness of the innovation sufficient to guarantee a flow of financial resources. Absent this demonstration, the innovation will be deprived of resources, resulting in underinvestment (if not abandonment). It is not enough to create new organizational structures around innovative ideas. Markets are what organizations resource, and the leader must create a structural context in which potentially disruptive innovations are linked to current mission requirements.

We need not highlight how difficult it is to execute these ideas. There are no simple answers to the key questions. Who will be assigned to the new organization? What implications will that assignment have for their careers? Who will fight for resources in the budget for the new entity, especially after its creator or advocate retires or is reassigned? These are challenging problems, but a supportive organizational design is a powerful tool for developing strategic alternatives, as Admiral William Moffett demonstrated in setting conditions for the development of the naval aviation community in the 1920s.⁴²

None of This Works without Educated Officers

Underlying all of these recommendations is an inescapable reality: we need intelligent, open-minded leaders—men and women who understand the fundamental principles of logic and evidence, are nimble enough to recognize the significance of strategic anomalies, and have the mental tools to think of what to do next.

At each level of officer development, we must demand that officers learn and relearn core principles of epistemology: logic, scientific reasoning, and research methods. Instruction on logic should include deductive (rational) and inductive (empirical) reasoning, as well as inference to the best explanation. Instruction on scientific reasoning should review the basics of the philosophy of science. What is a theory? What are the characteristics of a good theory? How do we choose among competing theories? What is the scientific method and how much does it correspond to science as practiced? What constitutes scientific proof or contradiction? What are the prominent historical models of scientific discovery? Instruction on research methods should include both inferential and Bayesian statistical approaches, probability, measurement, experimental design, and natural experiments. We do not argue that this material must be covered in great depth. But at present the overwhelming majority of senior officers have no background in these concepts.

Sustaining dominance requires significant exploration of the emerging competitive environment. The crucial point is not whether the U.S. military has the correct competitive theories right now but what it does when confronted with innovations that suggest its theories may be incomplete or wrong.

Systems of denial cause organizations to persist in their comfortable assumptions, despite evidence that the world is changing and that these changes may be dangerous. The systems of denial—killing the messenger, questioning the data, and resisting refutation through constant theoretical change—are powerful ways in which organizations ignore inconvenient information. Overcoming them demands that a leader focus on the counterfactual work of organizational change—understanding what is not happening and which possibilities are not being discovered, explored, developed, evaluated, or implemented—and why it is not happening. This requires understanding how inconvenient facts are resisted and developing a strategy for overcoming that resistance. As military leaders pursue initiatives that increase sensitivity to new conditions in the external environment, as they encourage experimentation, and as they invest attention and resources in developing new theories, they will find that the system of denial gives way to a different system—one of learning, of insight and foresight, and of change. This is the way of progress.

NOTES

1. Andrew Hill and Charles Allen, "Military Innovation through 'Brilliant Mistakes,'" *Army Magazine* 64, no. 8 (July 2014), p. 29.
2. U.S. Defense Dept., *2014 Quadrennial Defense Review* (Washington, D.C.: 4 March 2014), p. 59.
3. Sebastian Raisch et al., "Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance," *Organization Science* 20, no. 4 (July–August 2009), pp. 685–95.
4. According to the structure of formal logic, a "sufficient number" of anomalies should be just one. That is, a theory makes universal statements, and a single contradiction of a universal statement should be enough to discredit the theory. For example, a single red raven would refute the theory that all ravens are black. In practice, refutation is much more complicated and unpredictable.
5. See William Whewell, *Novum Organum Renovatum* (London: J. W. Parker and Son, 1858), and Thomas Kuhn, *Structure of Scientific Revolutions* (Chicago: Univ. of Chicago Press, 1962). The question of how to evaluate competing theories is profound. Kuhn describes five criteria: scope, accuracy, consistency, simplicity, and fruitfulness; see Thomas Kuhn, *Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago: Univ. of Chicago Press, 1977), pp. 320–29. The problem is that competing theories will be better in some areas and worse in others. Although we address aspects of the problem of theory selection, a thorough analysis is beyond the scope of this paper.
6. Thomas Kuhn, *Structure of Scientific Revolutions: 50th Anniversary Edition* (Chicago: Univ. of Chicago Press, 2012), pp. 92–110.
7. Stephen Jay Gould, *Ever since Darwin: Reflections in Natural History* (New York: W. W. Norton, 1977), p. 161.
8. Michael T. Hannan and John Freeman, "The Population Ecology of Organizations," *American Journal of Sociology* 82, no. 5 (March 1977), pp. 939–46. See also Elaine Romanelli and Michael L. Tushman, "Organizational Transformation as Punctuated Equilibrium: An Empirical Test," *Academy of Management Journal* 37, no. 5 (October 1994), pp. 1141–66, and Boyan Jovanovic, "Selection and the Evolution of Industry," *Econometrica* 50, no. 3 (May 1982), pp. 649–70.
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10. Gautam Mukunda, "We Cannot Go On: Disruptive Innovation and the First World War Royal Navy," *Security Studies* 19, no. 1 (2010), pp. 124–59. See also Holger H. Herwig, "Innovation Ignored: The Submarine Problem—Germany, Britain, and the United States, 1919–1939," in *Military Innovation in the Interwar Period*, ed. Williamson Murray and Allan R. Millett (Cambridge, U.K.: Cambridge Univ. Press, 1996), pp. 227–64.
11. Herwig, "Innovation Ignored," pp. 244–50.
12. See "U.S. Would Not 'Admit' the Insurgency in Post-war Iraq," *BBC News*, 15 December 2009, news.bbc.co.uk/; Thomas Ricks, *Fiasco: The American Military Adventure in Iraq* (New York: Penguin, 2006), pp. 168–71; and Bradley Graham, "Zarqawi 'Hijacked' Insurgency: U.S. General Says Foreign Fighters Now Seen as Main Threat," *Washington Post*, 28 September 2005, p. A17.
13. See, for instance, Nicholas Nassim Taleb, *Black Swan: The Impact of the Highly Improbable*, 2nd ed. (New York: Random House, 2010).
14. See Kuhn, *Structure of Scientific Revolutions: 50th Anniversary Edition*; Karl Popper, *Logic of Scientific Discovery*, 2nd ed. (London: Routledge, 2002); and Imre Lakatos and Paul Feyerabend, *For and against Method*, ed. Matteo Motterlini (Chicago: Univ. of Chicago Press, 1999).
15. A literature review found no citations of Popper or Lakatos (or, for that matter, the terms *falsification* or *refutation*) in reference to military or business innovation.
16. Popper's description of the conventionalist response to challenges to scientific theory influenced how we constructed our framework. See Popper, *Logic of Scientific Discovery*, pp. 59–61. The systems of denial we outline

- are a modification and adaptation of Popper's analysis.
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 18. Daniel S. Stempniak, *An Agent of Change or a Colonel Who Just Complained: A Case Study of Colonel Douglas A. Macgregor and His Book, Breaking the Phalanx[:] A New Design for Landpower in the 21st Century* (Fort Leavenworth, Kans.: U.S. Army Command and General Staff College, 2003), p. 9.
 19. Patrick Hurley, *A Concise Introduction to Logic*, 8th ed. (Belmont, Calif.: Wadsworth, 2003), pp. 118–19.
 20. Herwig, "Innovation Ignored," p. 260.
 21. Ibid.
 22. Daniel Klein, "Taking America for a Ride: The Politics of Motorcycle Tariffs," *Cato Policy Analysis*, no. 32 (January 1984), www.cato.org/.
 23. David Halberstam, *Best and the Brightest* (New York: Random House, 1972), p. 145.
 24. Indeed, Sims's experience is almost a model case (albeit serendipitous) for Popper's "conventionalist strategies" for defending existing theories in the face of contrary evidence. See Elting Morison, "A Case Study of Innovation," *Engineering and Science* 13, no. 7 (1950), p. 8.
 25. Popper, *Logic of Scientific Discovery*, pp. 95–107, 248–63.
 26. Herwig, "Innovation Ignored," p. 249.
 27. Ibid., p. 244.
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 29. Ibid., pp. 43–44.
 30. Richard Fortey, *Earth: An Intimate History* (New York: Random House, 2009), p. 130.
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 34. Ronald S. Burt, "Structural Holes and Good Ideas," *American Journal of Sociology* 110, no. 2 (September 2004), pp. 349–99.
 35. Jim Manzi, *Uncontrolled: The Surprising Payoff of Trial-and-Error for Business, Politics, and Society* (New York: Basic Books, 2012), pp. 164–65.
 36. See Popper, *Logic of Scientific Discovery*, pp. 60–67; Kuhn, *Essential Tension*, pp. 320–39; and Steven Gimbel, *Exploring the Scientific Method: Cases and Questions* (Chicago: Univ. of Chicago Press, 2011), pp. 91–93.
 37. Eric von Hippel, *Democratizing Innovation* (Cambridge, Mass.: MIT Press, 2005), p. 94.
 38. "The Immutable Nature of War," an episode in *Nova*, www.pbs.org/. A notable historical example is the artificial restrictions placed on the use of aircraft carriers during U.S. Navy war games in the 1930s. See Russell Weigley, *American Way of War: A History of United States Military Strategy and Policy* (New York: Macmillan, 1973), p. 253.
 39. For a rich discussion of this topic, see Manzi, *Uncontrolled*.
 40. Hill and Allen, "Military Innovation."
 41. Clayton M. Christensen and Michael E. Raynor, *Innovator's Solution: Creating and Sustaining Successful Growth* (Boston: Harvard Business School, 2003), p. 217.
 42. Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, N.Y.: Cornell Univ. Press, 1991), pp. 76–80.

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UNDERSEA LAWFARE

Can the U.S. Navy Fall Victim to This Asymmetric Warfare Threat?

Michael T. Palmer and J. Michael Johnson

The supreme art of war is to subdue the enemy without fighting.

SUN TZU

A federal judge has ruled in favor of environmentalists who assert the Navy has vastly underestimated the threat to marine mammals posed by its use of sonar and explosives during training off Southern California and Hawaii.

LOS ANGELES TIMES, 1 APRIL 2015

As the world's only superpower, the United States of America finds itself challenged by adversaries who know they cannot confront it directly, toe to toe, on traditional battlefields, or on or under the world's oceans.¹ In their attempts to follow Sun Tzu's instruction to "subdue the enemy without fighting," potential adversaries of the United States continuously assess and probe American strengths and weaknesses to identify vulnerabilities for military, political, and industrial exploitation. It is not fully appreciated, assessed, or addressed by American policy makers and warfighters how vulnerable the U.S. military is to the threat of "lawfare," both international and domestic environmental.

The leading expert on lawfare, Brigadier General Charles J. Dunlap, Jr., U.S. Air Force (Ret.), defines it as the use or abuse of law and legal processes as a substitute for traditional military means to achieve military objectives.² Both international environmental-protection political processes and American domestic environmental-protection laws and judicial processes offer tempting targets for exploitation by weaker adversaries willing to engage in political and legal lines of operations against superior U.S. military technologies and capabilities.³

The authors believe that it is possible for a competitor or potential enemy to use systemic American vulnerabilities to wage a campaign of misinformation and legal challenges to reduce U.S. military and antisubmarine-warfare readiness. In particular, this article focuses on how adversaries could use environmental lawfare covertly to wage war against the use of active sonar during testing, training,

and operations. Allowed to proceed unchecked heretofore, this use of undersea lawfare may already be providing potential adversaries an inexpensive way of reducing the antisubmarine-warfare capabilities of the U.S. Navy and its allies. This article is intended to stimulate action by warfighters and policy makers to identify, assess, and address this threat.

The article begins with an overview of asymmetric warfare, an introduction to lawfare as a form of warfare, and some historical examples of international lawfare. It then analyzes the potential military lawfare vulnerabilities to international environmental bodies and political processes as well as to American domestic environmental-protection laws and judicial processes. The article concludes with some lawfare threat-assessment indicators and possible courses of action.

ASYMMETRIC WARFARE / LAWFARE

Asymmetric warfare threats are nothing new.⁴ Noting that “at the dawn of the 21st century, the United States of America faces a broad and complex array of challenges to our national security,” the White House’s 2010 *National Security Strategy* stated, “In addition to facing enemies on traditional battlefields, the United States must now be prepared for asymmetric threats.”⁵ Reiterating the domestic threat posed by this mode of warfare, the Department of Defense’s 2013 *Strategy for Homeland Defense and Defense Support of Civil Authorities* states, “Potential nation-state adversaries will continue to refine asymmetric attack plans against the homeland as part of their concepts of operation and broader military strategies of confrontation with the United States.”⁶ It now becomes a matter of identifying and neutralizing these threats.

By their very nature, asymmetric nontraditional threats come in myriad forms and are especially difficult to conceptualize and combat. Knowing this, policy makers and warfighters must engage in rigorous and comprehensive strategic, operational, and tactical vulnerability self-assessments to identify and mitigate future challenges. In the past, these self-assessments have focused almost exclusively on a limited number of more traditional asymmetric threats (e.g., cyber and terrorist). Unfortunately, as the 9/11 attack and the recent North Korean cyber attacks more than amply demonstrated, asymmetric threats are often not identified in time to prevent damage; more-effective and more-meaningful assessments must account for creative and novel attacks. Consideration of the entire spectrum of potential asymmetric threats requires truly imaginative thinking.

Such thinking cannot simply ignore previously unidentified threats to U.S. military capabilities and the changing nature of warfare. In their 1999 book *Unrestricted Warfare*, Colonels Qiao Liang and Wang Xiangsui of the Chinese People’s Liberation Army address some mechanisms a nation such as China can use to defeat a technologically superior adversary, such as the United States.⁷ Noting

the narrow American focus on technology, Qiao and Wang argue that the United States is particularly vulnerable to attack along nontechnological *legal*, economic, and terrorist lines.⁸ The U.S. Department of Defense in its 2005 *National Defense Strategy* acknowledged the issue: “Our strength as a nation state will continue to be challenged by those who employ a strategy of the weak using international forums, *judicial processes*, and terrorism.”⁹ Thus, an adversary’s use (or misuse) of international political processes, domestic laws, and judicial processes constitutes a recognized and potentially feasible asymmetric threat.

INTERNATIONAL LAWFARE

The term “lawfare” may be of recent vintage, but its practice in international forums is not new. Weaker nation-states have long used international legal processes, world opinion, and domestic political support to try to level the playing field and neutralize an adversary’s technological or other advantages. Qiao and Wang describe international law warfare as “seizing the earliest opportunity to set up regulations.”¹⁰ This initiative allows an adversary to define the “problem,” control the agenda, force adverse responses, and achieve desired results.

Historically, weaker parties have attempted to achieve such leveling by asserting that a stronger party’s technology, weapons, or doctrines violate the international law of armed conflict. When successful, these efforts achieve an inexpensive, asymmetric, nonkinetic impact that restricts a stronger nation-state’s military capabilities while undercutting its strategic or operational advantage. A historical example of the use of an international agreement to obtain and secure a strategic advantage is the attempt at the 1856 Congress of Paris to set limits to naval warfare by closing the Black Sea to all warships.¹¹ Other instances, involving operational or tactical advantages, are Pope Urban II’s ban on the use of the cross-bow against Christians in 1097; the Saint Petersburg Declaration of 1868, which prohibited explosive bullets under forty grams in weight; and the Convention of 1899, which banned the use of expanding (“dumdum”) ammunition.¹²

Modern examples of parties using international bodies, other forums, and the Internet to limit U.S. military capabilities include efforts to shut down the detention facility at Guantánamo Bay, Cuba; to ban the testing of nuclear weapons; and to prohibit land mines, cluster munitions, space weapons, blinding lasers, drones, etc.¹³ An excellent illustration of international lawfare is the ongoing attempt to blunt superior U.S. military technological capabilities by arguing that laser-guided “smart bomb” munitions render traditional “dumb bomb” kinetic munitions impermissibly indiscriminate under the law of armed conflict.¹⁴ The above cases may be motivated solely by humanitarian concerns, but they make clear how malevolent or hostile actors could exercise lawfare for military and national strategic advantages.¹⁵

All of this appears to have been given only limited consideration by historians, policy makers, or warfighters, and that usually focused on an adversary's use or misuse of international law, mostly the law of war or of armed conflict. Nothing limits the exploitation of international or domestic laws and legal processes to achieve strategic, operational, or tactical advantage. The option to exploit American environmental-protection processes and laws is particularly attractive, given their particular susceptibility to abuse and manipulation.

INTERNATIONAL ENVIRONMENTAL LAWFARE

The environmental subset of lawfare is the use or misuse of environmental-protection laws and legal processes as a substitute for traditional military means to achieve objectives.¹⁶ What would such a campaign against the United States, specifically against the Navy's antisubmarine capabilities, look like? To follow the *Unrestricted Warfare* playbook: adversaries, operating through activist environmental organizations—their knowing or unknowing proxies—would manipulate influential international forums, conferences, or governing bodies in a multi-pronged strategy to neutralize particular U.S. military superiorities, whether technological, tactical, or strategic.

An adversary's first need is for a proxy. Failing to co-opt an authentic well-intentioned environmental group, it must create an entity that appears to be one, that closely parallels the structure and operations of such successful nongovernmental organizations (NGOs) as the Natural Resources Defense Council or Greenpeace.¹⁷ These organizations' activities would include fund-raising, press conferences, press releases, blogs, websites, social media campaigns, lobbying, meetings, conferences, and symposia, as well as partnerships with other respected NGOs and influential organizations, universities, and individuals and sponsorship of "research." To the public, these activities would appear to be legitimate, if not noble, aimed solely at the protection of marine mammals or the promotion of other oceanic environmental causes. In these ways proxy environmental NGOs would achieve significant leverage, building on the infrastructure, strategic communications, and other achievements of the scores of legitimate groups. Ideally, from the adversary's viewpoint, they could perform as self-funded, self-sufficient, and perpetual "launch and forget" weapons.

Next would be the development and execution of an effects-based, multimedia, external strategic communications plan. This plan would be centered on a comprehensive, well-resourced, and emotion-based public relations campaign that attempts to create both an "environmental crisis" and an "international consensus." That consensus would point to a predetermined solution that only the proxy group can provide and that is, not coincidentally, inimical to targeted U.S. military capabilities.

Recent efforts by (doubtless genuine) environmentalists demonstrate the potential effects of international strategic communications campaigns on military readiness. For example, environmentalists have expended significant effort and expense in public relations and strategic communications campaigns to “correlate” military active-sonar use with worldwide marine-mammal mass strandings. These events include, but are not limited to, the Canary Islands (1985, 1988, 1989, 2002, 2004), Greece (1996), the U.S. Virgin Islands (1998, 1999), the Bahamas (2000), Madeira (2000), the northwest coast of the United States (2003), and the coast of North Carolina (2005).¹⁸

Let us set aside the emotional message of the environmentalists and look at the facts. The Navy has been using active sonar for testing and training for over eighty-five years in the waters listed above and in other waters under the same conditions. Despite millions of dollars’ worth of dedicated research, NGOs and other groups have been unable to present a single persuasive, peer-reviewed, empirically based, scientific study that definitively links military sonar use to significant long-term adverse physiological impacts on marine mammals. At best, opponents of military sonar have “correlated” worldwide antisubmarine training and active-sonar employment with the stranding of approximately fifty marine mammals during the period 1996–2006, an average of five per year. The loss of five marine mammals per year to military sonar use pales in comparison to the estimated six hundred thousand marine mammals killed each year in the same period by commercial fisheries.¹⁹ In the meantime, countries such as Iceland, Norway, and Japan continue to hunt whales, Japan alone accounting for nearly two thousand whale deaths a year under its controversial “research” and other treaty exemptions.²⁰

Despite these facts, the campaign against Navy training activities and active sonar use has been, by any measure, spectacularly successful. Given the relative lack of meaningful natural-resource-protection benefit to be gained by either eliminating or reducing antisubmarine-warfare training worldwide, the prudent response is to ask, Where’s the crisis? Even better questions are, How and why did this become a crisis? How are these efforts affecting U.S. military capabilities? Granting for argument’s sake the highest motivations for the current anti-active-sonar strategic communications campaign, it should be clear that an adversary could mount a similar campaign to obtain comparable or more damaging results. This possibility is relevant for any asymmetric-threat assessment.

Another avenue of attack using international lawfare is targeting influential international forums, conferences, and governing bodies in aggressive and sophisticated lobbying and “educational” campaigns. A potential adversary’s initial attempt will be to use or modify existing international treaties, conventions, or regional agreements to obtain statements, resolutions, or other endorsements for

significant reductions in the use of, for example, military sonar testing, training, and operations.

Again, consider the effectiveness of environmental-group efforts. For more than a decade coalitions of environmentalists and others have lobbied and influenced numerous international bodies against the use of military active sonars because of the alleged harm caused to marine resources in general and marine mammals in particular. Table 1 lists some of the major “wins” by these groups during the last decade. They represent diversions of time, effort, and resources on

TABLE 1
INTERNATIONAL SONAR ACTIONS

Legal Body / Document	Purpose	Action
1994, United Nations Convention on the Law of the Sea	UNCLOS, with 157 signatories, is the seminal document governing international maritime activities, including environmental protection. ^a	Generally codifying customary international law, UNCLOS, among other things, assigns member states an affirmative obligation and responsibility to protect and preserve the marine environment as well as requires member states to assess and communicate the potential impacts of their activities on the marine environment. ^b UNCLOS regulates “pollution of the marine environment,” defined, in relevant part, as “the introduction by man, directly or indirectly, of substances or energy into the marine environment.” ^c
2004, International Convention for the Regulation of Whaling	The ICRW is an international agreement signed in 1946 to ensure the protection and conservation of worldwide whale stocks by establishing a system of international regulation of the members and contracting governments’ commercial, scientific, and aboriginal whaling practices. ^d	Its June 2004 International Whaling Commission’s Scientific Committee Report claimed that “compelling evidence” implicates ocean noise as a threat to marine mammals. ^e
2004, European Parliament	The EP is the directly elected parliamentary body of the member states of the European Union. ^f Together EP and the Council of the European Union form the bicameral legislative branch of the EU’s institutions.	In October 2004, the EP overwhelmingly adopted a resolution calling for a moratorium on military sonars. ^g
2004, International Union for Conservation of Nature		In November 2004, its World Conservation Congress passed Resolution 3.068 calling for international action to address the problem of ocean noise, including military sonars. ^h

INTERNATIONAL SONAR ACTIONS CONTINUED

Legal Body / Document	Purpose	Action
2006, Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) / 2006, Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS)	Aimed at preserving and protecting the numerous small migratory cetacean species native to the seas bordering Europe, including dolphins, whales, and harbor porpoises, the ACCOBAMS and ASCOBANS are regional cooperative agreements “to reduce threats to cetaceans, improve knowledge, and conserve marine diversity.” ¹	In December 2006 ASCOBANS parties passed Resolution 4, “Adverse Effects of Sound, Vessels and Other Forms of Disturbance on Small Cetaceans,” calling for the development of effective mitigation measures to “reduce disturbance of, and potential physical damage to, small cetaceans.” ¹ “The European Cetacean Society resolution adopted during the 23rd Conference (2009), requests to urgently adopt and enforce regulations for effective mitigation of active sonar use. This Resolution particularly urges competent authorities to take into account the conservation status and the potential and known effects of sonar on beaked whales.” ^k
2008, Convention on the Conservation of Migratory Species of Wild Animals	CMS is an intergovernmental treaty concerned with the conservation of terrestrial, marine, and avian migratory wildlife and habitats on a global scale. ¹	Meeting in Rome in December 2008, the CMS Conference of Parties adopted a resolution entitled “Adverse Anthropogenic Marine/Ocean Noise Impacts on Cetaceans and Other Biota” (Resolution 9.19). ^m Resolution 9.19 recognizes anthropogenic ocean noise as a form of energy “pollution” and reaffirms that “the difficulty of proving negative impacts of acoustic disturbance on cetaceans necessitates a precautionary approach in cases where such impact is likely.” ^m

Notes:

- Acronyms used in tables 1 and 2 are expanded in table 3.
- a. United Nations Convention on the Law of the Sea, 10 December 1982, 1833 UNTS 3 [hereafter UNCLOS]. An overview and copy of the full text is available at *United Nations*, www.un.org/. See Elena M. McCarthy, “International Regulation of Transboundary Pollutants: The Emerging Challenge of Ocean Noise,” *Ocean and Coastal Law Journal* 6, no. 2 (2001), pp. 275–77.
 - b. UNCLOS, arts. 192, 204–206.
 - c. *Ibid.*, art. 1(1)(4) [emphasis added].
 - d. International Convention for the Regulation of Whaling. A copy of the convention is available at *International Whaling Commission Key Documents*, iwc.int/convention. The list of the ICRW members and contracting governments is available at *International Whaling Commission*, iwc.int/.
 - e. International Whaling Commission, *Scientific Committee (IWC-SC) Report Annex K: Report of the Standing Working Group on Environmental Concerns* (Cambridge, U.K.: May 2004). A copy of the report is available at *The Acoustic Ecology Institute*, www.acousticceology.org/.
 - f. *European Parliament*, www.europarl.europa.eu/.
 - g. European Parliament, *Resolution on the Environmental Effects of High-Intensity Active Naval Sonars*, B6-0089/2004, available at awionline.org/. The resolution called on the EU and its member states to “adopt a moratorium on the deployment of high-intensity active naval sonars until a global assessment of their cumulative environmental impact on marine mammals, fish and other marine life has been completed.”
 - h. International Union for Conservation of Nature World Conservation Congress, Resolution 3.068, “Undersea Noise Pollution,” in *Resolutions and Recommendations: World Conservation Congress, Bangkok, Thailand, 17–25 November 2004* (Gland, Switz.: 2005), available at cmsdata.iucn.org/.
 - i. Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS). Text available at *ACCOBAMS*, www.accobams.org/. There are currently twenty-eight contracting-party governments; a complete list as of September 2011 is at *ibid.* ACCOBAMS was established under the auspices of the United Nations Environmental Programme’s 1979 Convention on the Conservation of Migratory Species of Wild Animals; see *Convention on the Conservation of Migratory Species of Wild Animals*, www.cms.int/en.
 - j. 5th Meeting of the Parties to ASCOBANS, the Netherlands, 18–20 September and 12 December 2006, Resolution 4, *Adverse Effects of Sound, Vessels and Other Forms of Disturbance on Small Cetaceans*, available at www.ascobans.org/.
 - k. Fifth Meeting of the Parties to ACCOBAMS, Tangier, 5–8 November 2013, *Anthropogenic Noise and Marine Mammals: Review of the Effort in Addressing the Impact of Anthropogenic Underwater Noise in the ACCOBAMS and ASCOBANS Areas*, p. 16, available at www.cbd.int/.
 - l. *Convention on the Conservation of Migratory Species of Wild Animals*.
 - m. Convention on Migratory Species, Ninth Conference of the Parties, Rome, 1–5 December 2008, *Adverse Anthropogenic Marine/Ocean Noise Impacts of Cetaceans and Other Biota*, UNEP/CMS/Resolution 9.19, available at www.cms.int/.
 - n. *Ibid.*, p. 2.

the part of the U.S. Navy, to the detriment of readiness and national defense. The long-term impacts, if any, have yet to be fully assessed and quantified. But these actions succinctly illustrate how strategic communications campaigns can seize effective control of processes and achieve desired end states. The proponents of the activities listed in table 1 are presumably at least willing to accept degradation of both antisubmarine-warfare capability and overall readiness. It is not difficult to imagine the assimilation of similar processes, to obtain comparably adverse impacts, by actors who specifically desire to target military capability or technological superiority.

A logical extension and continuation of international environmental lawfare would be new international treaties, conventions, or agreements directly reducing or banning particular technologies or warfighting capabilities. Suggestive of what such efforts would look like, were it in the hands of an actual adversary, is Greenpeace International's proposal for a global network of marine reserves covering 40 percent of the world's oceans, including international waters.²¹ If enacted, the implications for military readiness and operations are painfully obvious.

It should be noted that a significant constraint on an adversarial international lawfare arises from one of the limitations of international law itself: the general lack of meaningful enforcement mechanisms. Since all nation-states are sovereign, each unilaterally decides whether to commit itself to given international conventions, treaties, or agreements. Even when a nation-state does so, compliance remains voluntary and effectively immune from enforcement in case of alleged or real violations.

DOMESTIC ENVIRONMENTAL LAWFARE

This situation changes dramatically, however, when a potential adversary shifts to the arena of American domestic environmental law. The United States proclaims itself a world leader in environmental and natural-resource protection. The Environmental Protection Agency is a cabinet-level entity, and Congress has enacted over a hundred environmental laws since 1899 establishing programs to improve air and water quality; handle solid, hazardous, and toxic wastes; clean up landfills; and protect endangered species, as well as natural and cultural resources. In the United States, environmental-protection laws differ from most other federal statutes in that Congress has intentionally waived U.S. sovereign immunity. The majority of American environmental-protection laws mandate federal-agency compliance and apply injunctive, civil, and criminal sanctions to the government's employees, officers, and officials. For the most part, these waivers of federal sovereignty do not exempt the Department of Defense. Accordingly, the Navy, like other federal agencies, is subject to myriad federal and, in some cases, state, territorial, and tribal environmental laws and regulations.

These include, but are not limited to, the “big four” affecting maritime readiness: National Environmental Policy Act requirements for preactivity environmental impact statements; Marine Mammal Protection Act requirements for incidental take authorizations; Endangered Species Act requirements for consultation prior to any activities that “may affect” a threatened or endangered species or habitat; and Coastal Zone Management Act requirements for federal agency “consistency” with state coastal-zone management.²²

To take midfrequency active sonar as an example, the Navy is required to assess the potential impacts of its use on the environment and maritime resources. To start with, it must conduct requisite preactivity environmental planning, including documented impact analyses to determine whether the intended sonar use will adversely affect marine resources. If expected impacts exceed certain statutory or regulatory thresholds, the Navy is required to consult federal and state regulatory and coastal-resource agencies. It may also be required to obtain federal authorization. These consultations, authorizations, approvals, and notifications often produce detrimental restrictions of time, place, and operational mode, such as prohibition of sonar use at night.

U.S. EQUAL ACCESS TO JUSTICE ACT

Increasing the attractiveness to potential adversaries of encumbering U.S. Navy military readiness with burdensome agency approvals processes (and the possibility of civil damage awards and court injunctions) is the 1980 Equal Access to Justice Act (EAJA).²³ The EAJA authorizes U.S. federal courts to award (aside from injunctions and civil damages) costs and attorney fees “in any civil action brought by or against the United States or any agency or any official of the United States.”²⁴ These “civil actions” include environmental and resource-protection compliance challenges. Originally intended to assist small businesses to defend themselves from governmental agency actions, the EAJA also extends to 501(c)(3) nonprofit organizations, including environmental NGOs and other private groups.

Under the EAJA, plaintiffs, if they prevail, are entitled to reimbursement for their attorney fees, up to \$750 per hour, and other allowed costs incurred in bringing the lawsuit (e.g., expert witness fees, costs of scientific studies, mailings). In some cases, costs and attorney’s fees are payable even to plaintiffs who ultimately lose their legal challenges. Exact costs to the federal government and American taxpayers are apparently unknown, untracked, and unreported by most federal agencies. One Government Accountability Office study tracked 525 reimbursements during 2001–10 resulting in \$44.4 million in legal-fee reimbursements.²⁵ Some examples to date from recent federal lawsuits by environmental groups and others challenging U.S. Navy active sonar include approximately \$1.7 million for a 2002 lawsuit challenging low-frequency sonar use in the Pacific; approximately

\$400,000 for the five-day injunction on U.S. midfrequency active sonar during the 2006 Rim of the Pacific (RIMPAC) multinational training exercise; and over \$500,000 in attorney fees and costs alone related to an injunction in the Navy's Southern California Operating Area.

The EAJA “fee shifting” mechanism provides both an incentive and a steady source of income to law firms willing to litigate environmental compliance challenges against U.S. military departments and its officials, even on behalf of potential adversaries engaging in an asymmetric lawfare campaign. From the perspective of lawfare vulnerabilities, judicial enforcement of federal agency compliance provides adversaries an effective, essentially cost-free means to engage in legal lines of attack against U.S. military readiness.

U.S. DOMESTIC SONAR LITIGATION

For over a decade the Navy has been challenged in federal court by environmental NGOs and other groups seeking court orders enjoining active-sonar use, testing, and training. While their specifics vary slightly, these legal challenges have commonalities. They all allege violations of American domestic environmental-planning and natural-resource-protection laws, and they all seek judicial intervention to reduce or end, temporarily or permanently, Navy midfrequency active-sonar testing and training. Finally, the lawsuits target almost exclusively the Pacific theater antisubmarine warfare training areas off the coasts of California, Hawaii, and the Pacific Northwest.²⁶ As one example, on 3 July 2006 the U.S. District Court for the Central District of California issued an injunction barring the Navy from training with midfrequency active sonar during RIMPAC 2006 off the Big Island of Hawaii.²⁷

Table 2 summarizes the major domestic legal challenges against the Navy since 2002. Like table 1, it shows clearly how an adversary could capitalize on American domestic environmental laws and federal judicial processes to eliminate or degrade military capabilities.

LAWFARE THREAT-ASSESSMENT INDICATORS

The authors understand the inherent difficulties of identifying and assessing nontraditional asymmetric threats as a whole or of legal lines of operations in particular—hence the appeal of lawfare to potential adversaries. The following considerations may help separate actual threats from the background “noise” of legitimate challenges.

What Is the Target?

Is the international effort, strategic communications campaign, or lawsuit aiming at an increase in environmental or natural-resource protection or at something else? Does it seek rather to limit military-readiness activities, such as

TABLE 2
U.S. DOMESTIC SONAR LITIGATION EXAMPLES

Case	Court	Claim	Result
<i>Natural Resources Defense Council v. U.S. Navy</i>	U.S. Federal Dist. Court (C.D. Cal. 2002)	NEPA, ESA, MMPA, and MSA violated by U.S. Navy's LWAD program, including active sonar	Dismissed
<i>NRDC v. Evans</i>	U.S. Federal Dist. Court (N.D. Cal. 2002)	MMPA, ESA, and NEPA violated by U.S. Navy's peacetime use of low-frequency active sonar systems (SURTASS-LFA) for training, testing, and routine operations in the world's oceans	Permanent "tailored" injunction granted to plaintiffs limiting U.S. Navy's use
<i>Cetacean Cmty. v. Bush</i>	U.S. Federal Dist. Court (D. Haw. 2003)	ESA, MMPA, and NEPA violated by U.S. Navy use of SURTASS-LFA for training, testing, and routine operations in the world's oceans	Dismissed—whales and dolphins were not "persons" under the acts and therefore lacked standing to bring claims
<i>NRDC v. Winter I</i>	U.S. Federal Dist. Court (C.D. Cal. 2005)	NEPA, APA, and ESA violated by all U.S. Navy uses of midfrequency active sonars	Injunction sought
<i>NRDC v. Winter II</i>	U.S. Federal Dist. Court (C.D. Cal. 2006) [amended complaint]	MMPA, NEPA, ESA, and CZMA violated by U.S. Navy's use of MFAS during its international RIMPAC exercises off Hawaii	Preliminary injunction granted prohibiting U.S. Navy use of MFAS for training
<i>NRDC v. Winter II</i>	U.S. Federal Dist. Court (C.D. Cal. 2007) [amended complaint]	MMPA, NEPA, ESA, and CZMA violated by U.S. Navy's use of MFAS during exercises in the Southern California Operating Area February 2007–February 2009	Preliminary injunction granted, later vacated for tailored injunction measures
<i>NRDC v. Winter II</i>	U.S. Supreme Court (2008)	U.S. Navy alleged lower courts erred in granting injunctions	Lower courts reversed
<i>NRDC v. Gutierrez</i>	U.S. Federal Dist. Court (N.D. Cal. 2008)	MMPA, NEPA, and ESA violated by U.S. Navy SURTASS-LFA use on the world's oceans	2002 injunction continued; case settled
<i>Ocean Mammal Inst. v. Gates</i>	U.S. Federal Dist. Court (D. Haw. 2008)	NEPA, ESA, CZMA, and MSA violated by U.S. Navy's use of MFAS in twelve undersea warfare exercises in the Hawaiian Islands Operating Area January 2007–January 2009	Preliminary injunction ordered requiring U.S. Navy implementation of restrictive mitigation measures

U.S. DOMESTIC SONAR LITIGATION EXAMPLES CONTINUED

Case	Court	Claim	Result
<i>Earthjustice et al. v. Nat'l Marine Fisheries Service (NMFS)</i> ^a	U.S. Federal Dist. Court (N.D. Cal. 2012)	APA, ESA, and MMPA violated by U.S. Navy's MFAS use for ASW training in its Northwest Training Range Complex off Washington State	Injunction sought by plaintiffs to enjoin U.S. Navy MFAS use
<i>Earthjustice et al. v. NMFS, U.S. Dept. of Commerce, and U.S. Navy</i> ^b	U.S. Federal Dist. Court (D. Haw. 2014)	ESA, NEPA, and MMPA violated by U.S. Navy MFAS use for ASW training in its Hawaii–Southern California Training and Testing Study Area	Summary judgment in favor of environmental NGO plaintiffs granted on 31 March 2015

Notes:

- a. Complaint for Declaratory and Injunctive Relief, U.S. Dist. Ct. (No. Dist. of Cal.), 25 January 2012, available at earthjustice.org/. Plaintiffs: Earthjustice, InterTribal Sinkyone Wilderness Council, Center for Biological Diversity, Natural Resources Defense Council, Inc., People for Puget Sound, Friends of the San Juans, and Friends of the Earth.
- b. Amended Complaint for Declaratory and Injunctive Relief, U.S. Dist. Ct. (Dist. of Hawaii), Civil No. 13-00684 SOM RLP, 15 January 2015, available at earthjustice.org/. Plaintiffs: Earthjustice, Conservation Council for Hawai'i, Animal Welfare Institute, the Center for Biological Diversity, and Ocean Mammal Institute.

Source: Craig, "Beyond *Winter v. NRDC*."

development, testing, training, and operation? For example, does the group target only U.S. Navy active sonar but not other maritime activities potentially equally harmful to marine resources, such as commercial shipping, fishing, natural-resource exploration, air-gun arrays, or recreational boating?²⁸

Analysts should also consider what other activities groups are targeting. Illustrative are two separate lawsuits, filed in 2003 and 2004, in which environmental NGOs sued the Department of Commerce's National Marine Fisheries Service to stop it from issuing scientific research permits to determine the impacts of active sonar on marine mammals.²⁹ In one case, the court issued a temporary injunction against scientific experimentation in the northern Pacific Ocean to test whale-finding high-frequency sonar on grey whales.³⁰ Again, our reasonably prudent policy maker and warfighter should be asking why any group or individual purportedly dedicated to environmental and natural-resource protection would actively attempt to impede scientific studies to determine whether an activity may have an adverse environmental or natural-resource impact.

Finally, are U.S. military technologies or capabilities exclusively, or almost exclusively, the targets? Since similar human activities will likely cause adverse impacts anywhere in the world regardless of the political or military affiliation, genuine environmental challenges should be politically and militarily neutral in strategy and tactics. Disparities here may indicate malicious intent. It casts no aspersion on any environmental group or individual—certainly none is

intended—to point out in this connection a potentially important discrepancy in current practice. At least one major environmental NGO has adopted the strategy of mounting challenges in federal court to compel U.S. Navy environmental compliance while simultaneously adopting cooperative “partnerships” to obtain equivalent Chinese and Russian environmental compliance.³¹ The nationality of the military forces should be irrelevant, one might reasonably expect, to the potential adverse impacts of waterborne sound energy on marine resources. Motivation matters.

Where Is the Targeted Activity?

Lawfare analysts should look for temporal, political, and geographic discrepancies. For example, it seems interesting and relevant that aggressive international efforts, strategic communications campaigns, and domestic judicial challenges against military sonar use started only within the last decade or so, although the U.S. Navy has used sonar for eighty-five years and Congress has enacted environmental protection laws for over forty. As noted above, environmental efforts appear focused almost exclusively on Pacific Fleet testing and training areas. Temporally and spatially they seem aligned with the national security “pivot to Asia” and with geopolitical events in the U.S. Pacific Command area of responsibility. They also coincide with China’s drive for naval domination on both sides of the Malacca Strait, the South China Sea, and Taiwan Strait and with its (and other potential adversaries’) growing acquisition of quiet conventional and nuclear submarines. These strategic shifts, in turn, have driven a resurgence of interest within the U.S. Navy in antisubmarine warfare. If military sonars do adversely affect marine mammals at the individual and species “crisis” levels claimed by environmental organizations, one would expect the impacts to be worldwide. Yet to date there has been little or no such interest in, and few lawsuits and injunctions have sought to stop, similar sonar use or training in the Atlantic Ocean, Gulf of Mexico, Mediterranean, or Persian Gulf.

It goes without saying that no one factor alone is determinative in identifying and assessing potential lawfare threats. Each situation is fact and circumstance specific. It is the very nature of nontraditional warfare threats that other factors exist outside the scope of this article. What is required is either creativity from future analysts or the harsh reality of 20/20 hindsight gained from hard lessons learned.

DEALING WITH AN UNINTENDED VULNERABILITY

Policy makers and warfighters today should not allow themselves to be complacent or, worse, uncreative about such threats as environmental lawfare. They must be open to exploring all avenues of attack available to potential adversaries,

**TABLE 3
ACRONYMS**

ACCOBAMS	Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area
APA	Administrative Procedure Act (5 USC § 701 et seq. [1946])
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
ASW	antisubmarine warfare
CMS	Convention on the Conservation of Migratory Species of Wild Animals (also Bonn Convention)
CZMA	Coastal Zone Management Act (16 USC § 1451 et seq. [1972])
EP	European Parliament
ESA	Endangered Species Act (7 USC § 136, 16 USC § 1531 et seq. [1973])
EU	European Union
ICRW	International Convention for the Regulation of Whaling
kHz	kilohertz
LWAD	Littoral Warfare Advanced Development (program)
MFAS	midfrequency active sonar ^a
MMPA	Marine Mammal Protection Act (16 USC § 1361 et seq. [1972])
MSA	Marine Sanctuaries Act (16 USC § 1431 et seq. and 33 USC § 1401 et seq. [1988])
NEPA	National Environmental Policy Act (42 USC § 4321 et seq. [1969])
NGO	nongovernmental organization
RIMPAC	Rim of the Pacific (exercise series)
SURTASS-LFA	Surveillance Towed Array Sensor System (SURTASS)–Low-Frequency Active (LFA) ^b
UNCLOS	United Nations Convention on the Law of the Sea

Notes:

- a. U.S. Justice Dept., “Mid- and Low-Frequency Sonar,” *The United States Department of Justice*, September 2014, www.justice.gov/ (“Mid-frequency active sonar (1kHz–10kHz) is the Navy’s primary tactical sonar and its main tool to combat the threat posed by the world-wide proliferation of ultra-quiet diesel submarines”).
- b. *Ibid.* (“SURTASS-LFA is a low frequency passive surveillance system that is deployed on surface ships with acoustic data collection and analysis capabilities. It provides passive detection of quiet nuclear and diesel submarines and real-time reporting of surveillance information to theater commanders”).

recognizing the potential for long-term strategic damage inflicted by a malicious actor operating either parallel to, or in conjunction with, authentic judicial and strategic-communications challenges to military-readiness activities.

A good rule of thumb would be that the more nontraditional, unusual, and unfamiliar the threat, the more serious the required inquiry and assessment. Lawfare in general, and international and domestic lawfare in particular, warrants the attention of U.S. service colleges and policy think tanks.

Internationally, the United States is vulnerable to adverse resolutions, pronouncements, interpretations, and other actions by various international bodies, organizations, and groups, especially those to which this nation is a party by treaty or other similar agreement. It is imperative that analysts understand potential adversaries' motives and capabilities, recognize vulnerabilities for threat exploitation, and exercise due diligence to counter those threats in a timely and effective manner.

Domestically, the congressional intent in waiving U.S. federal relief from environmental-compliance injunctions, civil damages, and attorney's fees and costs was to ensure that agencies did their part to help protect the environment and preserve natural resources. Notwithstanding, Congress has created an Achilles' heel for military and national security, one susceptible to exploitation by potential adversaries willing to engage in lawfare.

Lawfare attacks constitute the quintessential asymmetric threat, in that they exploit simultaneously both strengths and weaknesses of the United States. These weaknesses include the nation's reliance on technology, its culturally myopic focus on symmetric kinetic threats, and its hypersensitivity to international opinion. The nation's strengths include its deeply held belief in the rule of law, its declared world leadership in environmental stewardship, and its penchant for using treaties, laws, and judicial systems to right perceived wrongs. Finally, the American taxpayer, through the EAJA and voluntary donations, is clearly vulnerable to being made to subsidize lawfare attacks. Everything is in place for a sophisticated adversary with the vision, resources, ability, and a "long view" of history to exploit these vulnerabilities and thereby impact U.S. military capability and readiness.

As with most asymmetric "peacetime" threats, there is little doctrine and less agreement on how to respond effectively.³² However, several commonsense options are available. The first is to develop processes designed to look for, recognize, and assess the full spectrum of potential and actual political or judicial threats, such as international and domestic environmental lawfare. It just takes creativity and some true out-of-the-box thinking.

The second is aggressive response to identified lawfare threats. Response starts with a comprehensive and coordinated campaign to educate both military and civilian leadership, the American public, and allies on the nature of the lawfare involved and the strategic and operational implications for security and defense. Senior military and executive-branch leadership should begin by elevating this problem to a multiagency level. Currently the United States typically generates only stovepiped, piecemeal, tactical responses—lawyers fending off lawsuits and public affairs teams defensively replying to press inquiries.

The international counteroffensive should not be limited to the State Department but should proactively track and participate in international conferences, governing bodies, symposia, and other relevant forums, in an effort to educate audiences and oppose attempts at international regulation of critical activities. The domestic counteroffensive should focus on eliminating the pathways vulnerable to legal lines of attack, especially the exploitation of domestic law. Potential options include, but are not limited to, defining and exempting from regulation critical military-readiness activities, enforcing registration and tracking as applicable of environmental organizations and NGOs under the Foreign Agents Registration Act, and implementing NGO reforms similar to recent election and lobbyist measures. The United States must insist that when it comes to limiting its critical military capabilities, litigants must definitively prove the military activities are actually doing harm—not the other way around. The United States must not be continuously obliged to prove its innocence in public forums, online, and in the courtroom.

Additional responses include limiting judicial review of such cases, removing injunctions as an enforcement option, and legislatively requiring regulatory agencies and courts to balance military-readiness impacts with environmental protection. Finally, Congress should shift critical environmental compliance of military-readiness activity from a matter of statute to presidential executive order. This would maintain the imperative for environmental protection by federal agencies but remove judicial enforcement vulnerabilities. An excellent model is the executive order directing the services to conduct rigorous environmental planning and impact assessments for overseas activities but ensuring these requirements remain free from international or American domestic law interference, enforcement, or abuse.³³

Potential adversaries are clearly thinking about “subdu[ing] the enemy without fighting” by asymmetric attack against U.S. military capabilities under the guise of environmental and natural-resource protection or other types of lawfare. American policy makers and warfighters can afford not to respond only if they believe no potential adversary will recognize or act on exploitable vulnerabilities. If adversaries do seize the opportunity, they may without opposition achieve their likely goal—cheaply and effectively eliminating or reducing U.S. Navy readiness. In the case of capabilities against quiet diesel-electric and nuclear submarines, this reduction or elimination will lead to inability to protect sea lines of communications, cause a wasteful expenditure of resources in exchange for a minimal benefit in natural-resource protection, and substantially reduce U.S. operational and strategic options. To exercise the doctrinal creativity required to recognize, assess, and respond to such nontraditional asymmetric warfare threats as possible

environmental lawfare is not paranoid but rather a prudent exercise in cautionary strategic thinking.

NOTES

This article represents the views of the authors, unless otherwise attributed, and not necessarily the views of the Department of Defense, the Department of the Navy, or any other federal agency.

1. Second epigraph from Tony Perry, "Judge Rules Navy Underestimated Threat to Marine Mammals from Sonar," *Los Angeles Times*, 1 April 2015, www.latimes.com/.
2. Brig. Gen. Charles J. Dunlap, Jr., "The Law of Armed Conflict" (Air & Space Conference and Technology Exposition 2005, 13 September 2005); "Lawfare, the Latest in Asymmetries," *Council on Foreign Relations*, 18 March 2003, www.cfr.org/.
3. Dunlap, "Law of Armed Conflict." See David McCormack, "Waging Lawfare," *Center for Security Policy*, 29 January 2006, www.centerforsecuritypolicy.org/.
4. U.S. military operations doctrine defines "asymmetric" as "the application of dissimilar strategies, tactics, capabilities, and methods to circumvent or negate an opponent's strengths while exploiting his weaknesses." U.S. Defense Dept., *Counter-Improvised Explosive Device Operations*, Joint Publication 3-15.1 (Washington, D.C.: 9 January 2012), p. GL-5, available at info.publicintelligence.net/.
5. White House, *National Security Strategy 2010* (Washington, D.C.: May 2010), pp. 1, 17, available at www.whitehouse.gov/.
6. U.S. Defense Dept., *Strategy for Homeland Defense and Defense Support of Civil Authorities* (Washington, D.C.: February 2013), p. 7, available at www.defense.gov/.
7. Qiao Liang and Wang Xiangsui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, February 1999).
8. *Ibid.* [emphasis added]. Illustrating this point is the following July 1974 exchange purportedly between Col. H. G. Summers, U.S. Army, Chief, Negotiations Division of the Four Party Joint Military Team, and his North Vietnamese counterpart, a Colonel Tu. Said Summers, "You know, you never beat us on the battlefield." Tu replied, "That may be so, but it is also irrelevant"; David T. Zabecki, "Colonel Harry G. Summers, Jr., Was a Soldier, Scholar, Military Analyst, Writer, Editor and Friend," *Clausewitz Homepage*, www.clausewitz.com/.
9. U.S. Defense Dept., *The National Defense Strategy of the United States of America* (Washington, D.C.: March 2005), p. 5 [emphasis added], available at www.defense.gov/.
10. Qiao and Wang, *Unrestricted Warfare*, p. 43.
11. Michael Howard et al., eds., *The Laws of War: Constraints on Warfare in the Western World* (New Haven, Conn.: Yale Univ. Press, 1997), p. 7.
12. For "dumdum" ammunition, Harold C. Hutchinson, "Lawfare as a Terrorist Tool," *Strategy Page*, 14 March 2006, www.strategypage.com/; for explosive bullets, Howard et al., *Laws of War*, p. 6; for the crossbow, TheMiddleAges.net, s.v. "crossbow," www.themiddleages.net/ ("Pope Urban II banned the crossbow's use against Christians in 1097, and the Second Lateran Council did the same in 1139").
13. For drones, Amnesty International, *Will I Be Next? US Drone Airstrikes in Pakistan* (London: 2013), pp. 43–47, available at www.amnestyusa.org/; and see "Drones: Killing outside the Bounds of Law?," *Amnesty International*, n.d., www.amnestyusa.org/. For blinding lasers, International Committee of the Red Cross, "Ban on Blinding Laser Weapons Now in Force," News Release 98/31, 30 July 1998, www.icrc.org/. For space weapons, Institute for Security and Cooperation in Outer Space [hereafter ISCOS], "Proposed Prevention of an Arms Race in Outer Space (PAROS) Treaty," available at cns.miis.edu/inventory/pdfs/paros.pdf; ISCOS, "The Treaty on Prevention of the Placement of Weapons in Outer Space," available at peaceinspace.com/

- (formerly called the Outer Space Security and Development Treaty; calling for a ban on all space-based weapons). For land mines, “Arguments for the Ban,” *International Campaign to Ban Landmines*, www.icbl.org/ (“Antipersonnel mines are indiscriminate and inhumane weapons and therefore violate the basic elements of international humanitarian law”). For nuclear testing, “The Case for a Ban Treaty,” *International Campaign to Abolish Nuclear Weapons*, www.icanw.org/ (“International law obliges all nations to pursue in good faith and conclude negotiations for nuclear disarmament”). For Guantánamo Bay, “U.S., Guantanamo: Guantanamo, Bagram and Illegal U.S. Detentions,” *Amnesty International*, n.d., www.amnestyusa.org/.
14. See Stuart W. Belt, “Missiles over Kosovo: Emergence, Lex Lata, of a Customary Norm Requiring the Use of Precision Munitions in Urban Areas,” *Naval Law Review* 47 (2000), pp. 115–75.
 15. See “Lawfare, the Latest in Asymmetries.”
 16. Dunlap, “Law of Armed Conflict.”
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 19. Andrew J. Read, Phebe Drinker, and Simon Northridge, “Bycatch of Marine Mammals in U.S. and Global Fisheries,” *Conservation Biology* 20 (2006), pp. 163–69.
 20. “Whaling,” *WDC* [Whale and Dolphin Conservation], us.whales.org/.
 21. Greenpeace International, *Emergency Oceans Rescue Plan* (Amsterdam, Neth.: 4 October 2010), available at www.greenpeace.org/.
 22. Coastal Zone Management Act, 16 USC §§ 1451–56 (1972); Endangered Species Act, 7 USC § 136; 16 USC § 1531 et seq. (1973); Marine Mammal Protection Act, 16 USC § 1361 et seq. (1972); National Environmental Policy Act, 42 USC § 4321 et seq. (1969).
 23. 28 USC § 2412 (2011).
 24. *Ibid.*, § 2412(b).
 25. Joshua Rhett Miller, “Environmental Groups Collecting Millions from Federal Agencies They Sue, Studies Show,” *Fox News*, 8 May 2012, www.foxnews.com/.
 26. For a comprehensive history of Navy sonar litigation see Robin Kundis Craig, “Appendix: Navy Sonar Litigation,” table in “Beyond *Winter v. NRDC*: A Decade of Litigating the Navy’s Active Sonar around the Environmental Exemptions,” in “20-Ton Canaries: The Great Whales of the North Atlantic,” issue, *Boston College Environmental Affairs Law Review* 36 (2009), p. 379.
 27. *NRDC v. Winter II*, 129 S. Ct. 365 (2008).
 28. See Michael T. Palmer, “Regulating Ocean Noise: A Non-traditional Threat to Maritime Security,” *Maritime Affairs* 5, no. 2 (Winter 2009), pp. 86–112.
 29. *Australians for Animals v. Evans*, 301 F. Supp. 2d 1114 (N.D. Cal. 2004); *Hawaii County Green Party v. Evans*, No. C-03-0078 SC, 2003 WL 21033523 (N.D. Cal. May 2, 2003).
 30. See the discussion of *Hawaii County Green Party v. Evans* in Palmer, “Regulating Ocean Noise.”
 31. For example, one particularly vocal opponent of U.S. Navy sonar, Natural Resources Defense Council, Inc., has “partnered” since 1996 with agencies of the Chinese provincial, municipal, and central governments, as well as a wide range of emerging Chinese environmental NGOs and major Chinese academic institutions and universities; “About NRDC China,” *NRDC*, www.e2.org/. NRDC also operates a fourteen-member office in Beijing and maintains an *NRDC China* website; “International Issues,” *NRDC: Natural Resources Defense Council*, www.nrdc.org/; *NRDC China*, www.nrdc.cn.
 32. See “Lawfare, the Latest in Asymmetries.”
 33. Exec. Order No. 12,114, 44 Fed. Reg. 1957 (1979), 3 CFR 356 (1980).

BOOK REVIEWS

WHAT DOES CHINA WANT?

Heath, Timothy. *China's New Governing Party Paradigm: Political Renewal and the Pursuit of National Rejuvenation*. Farnham, Surrey, U.K.: Ashgate, 2014. 256pp. \$109.95

In 2012, Tim Heath, then an analyst at U.S. Pacific Command, published a scholarly article that considered whether in fact China had a national strategy (“What Does China Want? Discerning the PRC’s National Strategy,” *Asian Security* 8, no. 1 [2012], pp. 54–72). Drawing extensively from Chinese sources, Heath argued that China did not have a formal national strategy document but did outline the essential elements of a national strategy in the authoritative writings of the Chinese Communist Party. Among professionals working Pacific security issues, the article was widely discussed and well regarded.

In *China's New Governing Party Paradigm*, Tim Heath expands and broadens this theme, examining the central narrative that both provides internal justification for exclusive Chinese Communist Party rule and shapes the policies the party imposes on China. Along the way, he offers a detailed description of the mechanisms the party employs to study, develop, and communicate the essential decisions that literally form the “party line.”

Up until the 1980s, academic studies of the People’s Republic of China often focused on ideology, revolution, and the impact of the Communist Party and party struggles. In the years since Deng Xiaoping announced the “reform and opening up” that freed China’s economic potential, analysts have focused on the impact of this economic change and the social forces it unleashed. In many cases, these studies portray the party as having abandoned ideology, offering the Chinese people national prestige and economic prosperity in its place.

Heath suggests that party ideology was not abandoned but transformed to ensure the party’s continued relevance and claim to authority. The key change came in 2002 when an authoritative official report referred to the Communist Party as the “governing party.” Though largely unremarked on at the time, this pronouncement represented a formal abandonment of the “revolutionary party” ideology that had justified party rule since the foundation of the People’s Republic in 1949.

While governments universally claim that they can govern competently, Heath underscores the exclusivity of the party's claim: not merely that it can rule well, but that it is uniquely equipped through rigorous study and discovery of natural laws to rule well. In Heath's words, the party asserts that "no other political group possesses an intellectual grasp of the historic natural laws underpinning China's development." The exclusivity of this claim means that ideology, far from being dead, is of central importance in justifying the party's rule. The party's grasp is expressed in correct theory that, promulgated by the party, becomes the basis for central directives that then are expressed in laws and policy.

Party theory is broad and elastic, setting a central direction and allowing increasingly professional bureaucracies to develop more-detailed guidance that aligns with the party line. The shift to a "governing party paradigm" has caused the party to focus on formalizing, regularizing, and bounding this process of policy interpretation. This interpretation process allows ministries and lower levels of government some genuine latitude in decision making within the overall guidance. This is, however, "rule of law" in the Chinese rather than Western sense. The absolute demand that law conform to party guidance renders any move toward independent authority, either bureaucratic or democratic, a threat to party rule, and transgressions of party guidance are quickly suppressed via an enforcement process that, to Western eyes, appears extralegal.

Much of the book describes the bureaucratic structure that develops, reviews, and issues party guidance. Heath emphasizes the key role of the Central Party School in this process.

The two most recent general secretaries of the Communist Party, Hu Jintao and Xi Jinping, previously served as Central Party School presidents. They have relied on the school, its staff, and its students as both a think tank and a key means of promulgating their guidance.

For readers interested in national security, Heath's analysis raises a number of essential issues. The party's claim to unique competency means that its legitimacy is in large part performance based. While the concept of "performance legitimacy" in the Chinese system is not new, Heath underscores how critical it is that the party be able to present itself as successful, or at least competent, in every key policy area. In this context, it is clear why Xi Jinping views endemic corruption as a key threat to party rule.

Further, Heath's analysis has important implications for the future of the Chinese military. The People's Liberation Army (PLA) has a unique relationship with the party. It is, of course, the party's army, first and last accountable to the party leadership. It too, however, has been impacted by the tendency to delegate execution-level detail to professional bureaucracies. Heath's model suggests that PLA leaders, as technical experts in their field, will expect to enjoy increasing influence and autonomy within their area of expertise. The party, however, is especially sensitive to its control of the military, and the tension in this relationship that Heath identifies will likely continue in coming years.

This is a dense, specialized book, and the generalist would do well to start with a work such as Richard McGregor's excellent *The Party: The Secret World of China's Communist Rulers* (2012) as an introduction to the topic.

However, the work is approachable to the motivated reader and for the Navy's growing cadre of Asia-Pacific hands represents essential reading.

DALE C. RIELAGE



Serrat, Austin, Lawrence Douglas, and Martha Merrill Umphrey, eds. *Law and War*. Stanford, Calif.: Stanford Univ. Press, 2014. 248pp. \$75

Law and War is a collection of five essays on the role of law in war offered as part of the Amherst Series in Law, Jurisprudence, and Social Thought. What ties the essays together is their shared interest in “interrogating the assumption . . . that the insertion of law into war is necessarily a salutary achievement.” But this connection is often loose, and, while several of the essays have a great deal of individual merit, it is perhaps a weakness of the book that it lacks the degree of overall coherence that one might expect.

Sarah Sewell leads off with the essay most relevant to military legal practitioners and warfighters. In “Limits of Law: Promoting Humanity in Armed Conflict,” Sewell makes a compelling argument that modern norms about what is acceptable in war often outstrip the limits imposed by the actual law; that is, norms often make “unacceptable” conduct that the law inarguably still permits. She views this as a negative development, fearing that as gaps develop between the norms and the law, it will increasingly erode respect for the latter. By way of example, Sewell highlights the growing normative expectation that powerful states will eliminate civilian casualties in war, while the law of armed conflict has always recognized an uneasy

balance between humanitarian protection and military necessity—a balance that “the norm of minimizing civilian casualties” does not need to maintain.

Gabriella Blum follows Sewell, and in “The Individualization of War” she explains how such norms have taken hold through a process she describes as a shift from “collectivism” to “cosmopolitanism,” by which she means a shift from a “state-centered set of obligations” to one focusing on the rights of individuals to be protected from the evils of war. Like Sewell, Blum asserts that this development is not necessarily good, leading to an increasing conflation between the norms of policing and those of warfighting (with negative consequences to both).

The third essay represents a substantive, if not thematic, departure, as Laura Donohue writes on “Pandemic Disease, Biological Weapons, and War.” Donohue offers a historical treatment of U.S. federal authority for responding to such threats, and argues that post-9/11 fears have led to a paradigm shift in thinking about them—from public health menace to national security threat. This essay is probably most relevant to military practitioners dealing with domestic support to civil authorities.

Samuel Moyn's essay “From Antiwar Politics to Antitorture Politics” offers a fascinating comparison between the legal arguments offered against the Vietnam War and those often presented regarding America's conduct of its post-9/11 wars in Iraq and Afghanistan. Through a careful examination of the role of law in the antiwar movement of the 1960s and 1970s, Moyn highlights the extent to which the debate centered on the legality of America's entry into

the conflict, as opposed to focusing on *how* America fought. Moyn then traces a shift toward the end of the war, particularly Telford Taylor's trenchant criticism of American warfighting practices, which Taylor came to view as unlawful. By contrast, Moyn argues that criticism of our modern conflicts is directed at the conduct of hostilities—torture, rules of engagement, and war crimes. He ascribes this to the end of conscription and the relative inoculation of much of the American public from the effects of our wars abroad, but also to a larger shift in the broad discourse about the law of war in the modern era, in which the means and methods of warfare are much more tightly regulated.

The final essay builds to some extent on Moyn's work, though Larry May's "War Crimes Trials during and after War" is less cogent and ultimately less valuable. May sets out to examine whether war crimes trials are best prosecuted while hostilities are still under way or after hostilities are concluded. Controversially, May argues that war crimes trials during hostilities ought to address *jus ad bellum* matters: once a tribunal finds that unlawful "aggressive war" is being waged, soldiers of that side are on notice that they may be participants in the war crime of aggression. This strikes the reviewer as highly implausible, and for that reason this essay is perhaps the weakest of the five.

Ultimately, *Law and War* is a collection of essays that are largely conceptual and highly normative in their arguments. As such it is undoubtedly a thought-provoking and challenging book, but also one that is not likely to be of immediate use to military lawyers per se. On the other hand, for non-lawyers who ponder the role of law in

war, in policy making, and in shaping and reflecting societal norms, the book offers many valuable insights.

JOHN MERRIAM



Daddis, Gregory. *Westmoreland's War: Reassessing American Strategy in Vietnam*. Oxford, U.K.: Oxford Univ. Press, 2015. 320pp. \$36.95

General William Westmoreland, the American commander of Military Assistance Command Vietnam (MACV) from 1964 through 1968, remains one of the most contentious personalities of the Vietnam War, still the subject of intense debate among veterans and historians of the war. Prevalent still is the view that "Westy" could not see the forest for the trees, or vice versa, and disastrously lacked strategic vision and operational creativity owing to his parochial focus on employing Cold War "big unit" doctrine and attrition to combat an insurgent war of unification. The most extreme of such assessments of Westmoreland comes from Lewis Sorley, who in multiple works, notably *Westmoreland: The General Who Lost Vietnam* (Houghton Mifflin, 2011), all but charges Westmoreland with gross negligence.

Gregory Daddis, formerly of the Military History Department at West Point and now associate professor of history at Chapman University, offers what he believes is a more balanced view of this controversial general. In *Westmoreland's War*, Daddis argues that instead of lacking understanding of the conflict in Vietnam and warmly wrapping himself in the comfort of familiar "big unit" doctrine, Westmoreland embraced counterinsurgency approaches

and pacification, strongly supported building up the Army of the Republic of Vietnam (ARVN), and recognized the importance of establishing the political legitimacy of the government of the Republic of Vietnam among the South Vietnamese people. Far from the bumbling, career-climbing martinet characterized by Sorley, Daddis's Westmoreland at least asserted an intellectual understanding of the challenges of revolutionary warfare. Daddis argues that Westmoreland recognized the need for pacification and other counterinsurgency measures, but failed to articulate his strategy publicly or to his commanders in the field, ending up conducting what was in essence an unwinnable war. Daddis offers a challenging corrective on Westmoreland, but some will find that his ideas fall a bit short. What Westmoreland said and wrote, which Daddis ably reveals through his extensive and valuable archival research, does not connect to what happened on the battlefield. Westmoreland could not militarily rectify the political problems of South Vietnam, and, as both the military and political situations continued to deteriorate, Westmoreland in turn relied more on big-unit search and destroy operations and the massive firepower the American military had at its disposal. The military situation, arguably, dictated that Westmoreland use his limited resources—yes, limited resources—to stem the tide on the military side at the expense of manpower and resources for pacification and other nonkinetic programs. Attrition, whether Westmoreland intended it or not (Daddis argues not), was the public face of his strategic and operational approach throughout his tenure as commander of MACV. If that was indeed the case, then Westmoreland's

failure is in part one of miscommunicating what it was he believed he was doing in South Vietnam, if not disconnecting that belief through intent or ignorance from the military reality his forces faced, especially from 1966 forward.

Vietnam was not Westmoreland's war. Yes, Westmoreland has been and probably will continue to be the face of that conflict. He is, after all, an easy if not agreeable target on which to place a great deal of blame for the American debacle. However, as Daddis correctly points out, the Johnson administration, not Westmoreland, placed limitations on what Westmoreland could do in Vietnam. Political leaders in Washington, like the military leader Westmoreland, eagerly accepted the primacy of American firepower as a military solution to both military and political problems in South Vietnam. Still, one must accept that the officials of the Johnson administration grounded those limitations in deep political earth. At the time, they believed they had good reasons for approaching the conflict the way they did. Ultimately, as Daddis suggests, it did not matter what those in Washington, Saigon, or MACV did. The war in Vietnam was a bad war that American leadership believed had to be fought nonetheless, resulting in defeat and tragedy that still haunts the United States fifty years later.

Westmoreland's War is an important book. Scholars of the conflict should read it. Daddis offers thought-provoking arguments that counter the Sorley school on the Westmoreland years of American involvement in Vietnam. Whether one agrees with Daddis (or Sorley for that matter), diligent scholars must consider Daddis's point of view and his interpretation of the archival evidence. Daddis has made a valuable

contribution to the discussion, just as he did with his similarly provocative *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (Oxford, 2011). As for Westmoreland, the debate continues.

WILLIAM THOMAS ALLISON



Hill, Christopher. *Outpost: Life on the Frontlines of American Diplomacy*. New York: Simon & Schuster, 2014. 448pp. \$30

An American diplomat for over three decades, Christopher Hill's service took him all over the globe and into some of the most challenging circumstances faced by a member of the Foreign Service. This account of his unique postings during that dynamic time frame is a vivid reminder of how much the world has changed.

In his memoir, *Outpost: Life on the Frontlines of American Diplomacy*, Hill, now a dean at the Josef Korbel School of International Studies at the University of Denver, traces his rise in the Department of State in a style that is engaging and lively. His writing is honest and reflective as he recounts his interactions with some of the most distinguished and most notorious individuals to grace the world stage. Over the course of his fast-paced narrative, he doesn't pull any punches in his assessments of people or policy decisions and, most importantly, he shares valuable and candid insights (both successes and failures) and lessons learned over his distinguished career.

Prior to his start in the State Department, Hill spent two years in the Peace Corps. He recalls trying to influence a local credit union election in Cameroon

and failing miserably. He learned the folly of trying to change the behavior of an entire community. He writes, "Years later, in the Middle East, in the Balkans, in Asia, I would see time and time again systemized efforts on the part of the United States to pick winners in situations we understood little about. Like my efforts at the Tole Tea Estate's credit union, they never worked."

Another key theme that emerges is the importance of mentoring and how it enabled Hill to reach his full potential in the State Department. His early assignments under Lawrence Eagleburger (later Secretary of State under George H. W. Bush) in Yugoslavia and Richard Holbrooke (lead negotiator at the Dayton Peace Accords and later ambassador to the UN) at the European Bureau exposed him to two of the best practitioners of statecraft in the U.S. government.

After recounting the great success at Dayton, Hill transitions his narrative to the latter part of his career, in which his record as a Foreign Service officer is a little more mixed. He describes the numerous actors, both domestic (politicians and members of the military) and international, that he encountered during some of his most demanding billets. These postings, as the Assistant Secretary of State for East Asian and Pacific Affairs, envoy to the North Korean nuclear talks for the Bush administration, and the U.S. ambassador to Iraq for the Obama administration, seem to have left Hill unfulfilled and somewhat frustrated.

He takes both administrations to task for what he believes was an unhealthy blend of partisan politics and lack of a long-term policy vision. Of particular note is Hill's withering critique of Vice

President Cheney and his influence in the Bush administration during the Six Party Talks. “The neoconservatives, aided by a vice president’s office deep with suspicions of the Foreign Service, seem to believe that the State Department negotiated with the North Koreans because we enjoyed it. Our effort to explain . . . fell on deaf ears.” Despite Hill’s best efforts, the North Koreans decided not to comply with American demands, and he was soon brought back home.

After a short respite, Hill was selected to replace Ambassador Ryan Crocker in Iraq. He makes many valuable observations about his tour in Iraq, especially his strained relations with the U.S. military leadership responsible for the region, in particular Generals David Petraeus and Ray Odierno. His criticism is also directed at the Obama administration, which he perceived as slow “to grasp the complexities of the region, the seeming confusion within its foreign policy team between wars of democracy and sectarian enmity.”

Outpost: Life on the Frontlines of American Diplomacy is a significant contribution to the international studies field and is a must-read. This volume will appeal to anyone who is interested in learning more about the Department of State or the intricacies of American interagency relationships. However, with all the security challenges facing the United States in the foreseeable future, this book also needs to be read by midgrade and senior military professionals so they may gain a better appreciation of the Foreign Service and the people who serve in that important institution.

T. J. JOHNSON



Friedberg, Aaron L. *Beyond Air-Sea Battle: The Debate over US Military Strategy in Asia*. London: Routledge, 2014. 152pp. \$14.99

Normally, a recommendation regarding for which audience a book is best suited comes at the end of the review. In this case, it comes first because Professor Aaron Friedberg provides a tight monograph that illuminates areas of great misunderstanding to a large population in the policy and defense communities: the debate over the concept of Air-Sea Battle (ASB) and the vernacular of modern maritime strategy. Landlubbers who have been engrossed for the last fourteen years in land wars in South Asia should read this book. As a history professor teaching a population composed predominantly of U.S. Army majors at the Command and General Staff College in Fort Leavenworth, Kansas, this reviewer has firsthand experience of this shortfall in knowledge in both uniformed and civilian defense personnel. The book is also recommended to all those who desire a comprehensive discussion of the concept and its variations, alternatives, and origins.

Friedberg, a professor of politics and international relations at Princeton University, made a compelling case in a January 2015 *Washington Quarterly* article about the People’s Republic of China’s (PRC’s) “new assertiveness,” which, he argues in this book, is the primary motivator for the emergence of ASB. From this and his other writings, he clearly believes that a response to this assertiveness is absolutely necessary, if not overdue, and in need of high-profile public debate.

The monograph is organized into an introduction, four thematic chapters, and a concluding chapter, all in about 150 pages of nicely spaced text—making it a comparatively short read, although not a simple one. Friedberg first lays out how ASB came to be and how the concept is defined. Like everyone else, he traces the origins of ASB to the challenge presented by the PRC’s *adoption* of a maritime strategy that includes antiaccess/area-denial (A2/AD), although when ASB emerged it was generically framed and could have referred to other countries, including Iran (see for example this reviewer’s “Air-Sea Battle and Its Discontents,” *USNI Proceedings*, October 2013). A2/AD involved the expansion of the capabilities of the People’s Liberation Army Navy after the Taiwan crisis of 1996 to deny use of the maritime commons inside the so-called first island chain and to challenge approaches to that area (p. 26).

Geographically, the first island chain extends from the Japanese archipelago, through Taiwan and the Philippines, to the exit of the South China Sea (SCS) at the Malacca Strait near Singapore. China began increasing its surface and subsurface fleets and its ability to project air power from land bases into this region, as well as using innovative new weapons such as antiship ballistic missiles to threaten U.S. high-value units such as aircraft carriers, amphibious assault ships, and logistics vessels beyond the first island chain. Additionally, as A2/AD developed it came to represent a “credible threat,” according to Friedberg, to the naval and air bases and logistics support by U.S. allies along the first island chain (pp. 27–28). Friedberg describes this all in detail in the introduction and first chapter.

His second chapter then argues that the United States responded belatedly to A2/AD because of the terrorist attacks of 9/11 and the 2008 financial crisis and great recession. The former distracted U.S. policy makers from the emerging threat, and the latter prevented a strong response, because of the perceived costs in a dismal fiscal environment. Evidently he believes the current fiscal environment has eased enough to take the challenge more seriously. Here Friedberg could have supported his argument by emphasizing that, in addition to the economic crisis at home, the two wars in Iraq and Afghanistan were consuming inordinate U.S. resources in 2008. Nonetheless, he does a credible job of debunking those critics of ASB who say the A2/AD threat is overstated or that the relationship between the United States and China has improved enough to obviate a response.

Friedberg then outlines in chapter 3 what can be called the classical ASB concept, calling it the “direct approach.” This approach is primarily offensive, although it does not posit a U.S. “first strike” but rather a reactive counteroffensive that threatens the PRC’s land-based power projection and naval support to A2/AD with commensurate U.S. naval and air power, preferably in concert with allies such as Japan. He addresses critics by examining ASB’s efficacy in the following areas (using speculative analysis in some cases): military outcomes, political outcomes, escalation (including nuclear), deterrence value, reassurance to allies, and the effects on competition between the United States and the PRC. Friedberg’s inclusion of nuclear escalatory calculus is a welcome component, given how little this topic seems to be factored into policy discussions in

the multipolar nuclear world we now inhabit. The Department of Defense has an Air-Sea Battle Office, as does the U.S. Navy, and his discussion at the end of chapter 3 is aimed, presumably, at the folks inhabiting those organizations and their strategic masters.

Friedberg forecasts two potential ASB approaches: a “linear” approach that uses existing resources and technology and, in contrast, a “discontinuous” approach that relies heavily on new technologies and un-fielded weapons concepts (pp. 95–98). Friedberg seems to prefer the linear approach, given the ease with which it can be implemented (although that ease does not mean it will be inexpensive), but he does not rule out investigating new technologies. He is obviously wary of “betting the farm” on a “futures” approach.

In his final chapter, Friedberg describes two indirect approaches or “alternatives” to ASB: either a distant blockade or what he calls “maritime denial” (pp. 104, 116–17). He again applies an analytic framework to assess the efficacy of these less-offensive-oriented approaches. Distant blockade is merely economic warfare. It would aim at Chinese shipping, principally oil tankers at the key straits’ entrances leading through the SCS to Chinese ports. Maritime denial is simply ASB limited primarily to the global commons and PRC littoral inside the first island chain. One might characterize maritime denial as an active defense of the global commons, but again it is reactive, not something to implement without significant Chinese military provocation. The conclusion reviews the bidding on everything discussed. Here Friedberg comes across as a bit more bellicose than one might expect, implying that a mix

of all three approaches—ASB, distant blockade, and maritime denial—would probably be the best course of action. Friedberg comes closest to the nub of the issue when he writes: “The first dividing line in the debate over this issue is between the advocates of maritime denial, who seek to avoid strikes against targets on the Chinese mainland, and the proponents of ASB, who believe that war cannot be won without such attacks” (p. 137). However, he leaves the door open for the reader to make up his or her own mind on the issue.

While this might be perceived as strength, it is also something of a disappointment, because this reviewer wanted to know what Friedberg *really* recommends. Friedberg is clearly not of the opinion that ASB should be dismissed, and seems to support a course of action that implies the direct approach option while being ready, at a moment’s notice, to implement the other two approaches in response to a PRC “first strike” (p. 37).

Friedberg leverages all the latest writing on the topic, using the work of writers familiar to naval audiences such as Jan van Tol and Wayne Hughes. He has done his homework, and now it is time for all others to do theirs as the United States faces the A2/AD challenge.

JOHN T. KUEHN



Preble, Christopher, and John Mueller, eds. *A Dangerous World? Threat Perception and U.S. National Security*. Washington, D.C.: Cato Institute, 2014. 224pp. \$12.95

Medical doctors are trained to recognize when patients’ complaints and self-diagnoses need to be ignored, lest

the doctor be responsible for unnecessary medical treatment. It is unfortunate that we do not have similar education for national security officials regarding threats to the nation. With such training, there is a chance we could avoid at least some of the overreactions to misperceived threats that have burdened recent American foreign policy.

There is a significant and growing literature addressing the issue of threat inflation, and Christopher A. Preble and John Mueller's edited volume *A Dangerous World?* is an important contribution in this area. Published by the Cato Institute, it is a collection of sixteen essays by an array of authors, each delving into a different aspect of the U.S. threat environment. Their aim is to question the assumptions that underpin so much of U.S. national security policy: that we live in a perilous world riven by uncertainty and threats, and only a robust, expensive, and active defense preserves the homeland's security.

To this end, the work addresses a wide range of topics, each examined by a different contributor. Francis Gavin and John Mueller separately examine America's history of nuclear alarmism, noting that predictions of imminent explosions in a number of nuclear weapons states have been commonplace for decades. Lyle Goldstein argues convincingly that the threat China poses to the United States is a limited one (he uses the memorable phrase "panda claws") and he claims China's rise can be countered with low-cost strategies. (As of this writing, recent devaluations of the yuan raise the possibility of a future Chinese retrenchment, further reducing the need for a potent American counter.) Former U.S. intelligence officer Paul Pillar explores substate threats (including

terror groups), asserting that America is too quick to seize on new threats. Since 9/11, more Americans have drowned in their bathtubs than have been killed in the United States by terrorist attacks, and improved security cannot account for the entirety of this disparity.

Michael Cohen asks whether other aspects of personal welfare, such as health security, should also be addressed in our discussions of security. Daniel Drezner explores the economic benefits of American military pre-eminence, and finds them elusive. The United States has spent trillions on homeland defense and overseas confrontations since 9/11, Drezner notes, while the total economic impact of 9/11 itself was "only" \$100 billion.

Elsewhere, Christopher Fettweis examines the pervasive anxiety in American national security culture, arguing that "geopolitical fear" has become something of an American tradition, passed on from generation to generation. "Wealth creates insecurity in individuals, and it seems to do so in states as well." Benjamin Friedman explores the issue of threat inflation, arguing that America's vast power "distributes the costs" and "concentrates the benefits" of confrontational policies, creating constituencies that promote (and even become dependent on) maintaining a state of unnecessary vigilance.

In many respects, America can afford to exaggerate the world's perils. There is no meaningful political pressure to reduce the budget of the Department of Defense, and America's national security expenditures, large though they are, constitute only a fraction of the federal budget. At the same time, one must also consider the risk that threat inflation poses to American

lives. More Americans were killed as a consequence of the decision to invade Iraq in 2003 than on 9/11 itself. But there is also the long-term causal impact of the U.S. invasion. The existence of ISIS is another unintended consequence of the American invasion.

It is true that there are dangers in this world. But Preble and Mueller's volume constitutes an antidote to America's tendency to imagine grave peril, and serves as an important counter to the American proclivity to overstate the benefits and understate the costs of an assertive global military posture. The editors argue that America is largely free of threats that require military preparedness or balancing behavior. In his chapter, Fettweis argues that America's tendency to exaggerate the world's dangers can be altered, since it is based on a system of beliefs that can be changed over time. Let's hope he's right.

ANDREW STIGLER



Hassan, Hassan, and Michael Weiss. *ISIS: Inside the Army of Terror*. New York: Regan Arts, 2015. 288pp. \$16.95

The surprising success of the Islamic State in Iraq and Syria (ISIS) in seizing control of large parts of northern and western Iraq in 2014 has generated many questions for policy makers and the public. How was this group so effective so quickly? Where did it come from and how did so many observers miss its rise? What threat does ISIS pose to the region and beyond?

Hassan Hassan and Michael Weiss address these questions in this recent book about ISIS. The work is part history of

the ISIS movement and part analysis of its nature and strategy. The authors' backgrounds—Weiss is a prolific journalist and Hassan a knowledgeable Syrian analyst at the Delma Institute in Abu Dhabi—combine brilliantly to explain the rapidly evolving events on the ground within the context of the political-military issues in the region. Hassan and Weiss interviewed current and former ISIS movement fighters in Syria, dissected ISIS propaganda videos and statements, and combined other scholarly analyses of ISIS to produce what I consider to be the most accurate assessment of ISIS currently available.

The overwhelming strength of the book is that Hassan and Weiss get the history of ISIS right. Although it is often mistakenly thought of as a recent phenomenon, the authors correctly trace the group's evolution as a core of Salafist-oriented fighters who joined together under Abu Musab al-Zarqawi in Iraq in 2002–2003. Zarqawi's unique outlook, based in the same Salafi-jihadist school as Osama Bin Laden's Al Qaeda, imprinted on the ISIS movement early and has been the biggest factor in the popularization of its distinct ideology and the evolution of its tactics and strategy. The authors capture this dynamic, as well as ISIS's subsequent transformation from a foreign fighter-based organization to a more indigenous Iraqi-led group that eventually split with Al Qaeda.

Because of their understanding of ISIS history, Hassan and Weiss are able to demonstrate the ideological foundation behind ISIS's strategic targeting and why the group takes on such a large spectrum of enemies at once. The authors are also able to explain ISIS's genocidal strategy and how the group promotes its own atrocities to inspire fear in its enemies.

This book illuminates the strategic debate over the importance of uncontrolled spaces to groups like ISIS. ISIS's effective use of low levels of indiscriminate violence to take over large parts of Syria and Iraq since 2013 demonstrates the opportunity that ungoverned space affords malignant actors such as ISIS. The ISIS movement began in the Kurdish areas of Iraq outside the reach of Saddam Hussein in 2002, and moved quickly into Anbar after identifying a security vacuum following the invasion of Iraq in 2003. The collapse of the Assad government in eastern Syria and the defeat of the Sunni Awakening militias and their Iraqi security partners in several Iraqi provinces (2008–12) once again created space for the ISIS movement—this time to recover from its 2007 defeat in Iraq. Despite today's blistering air campaign, ISIS maintains control over most of the Sunni areas of Iraq and Syria, and arguably continues to develop deep roots of support among the population.

The authors also highlight the problems of both the Bush and Obama administrations' war-termination strategies for Iraq, in what has become a recognized weakness in the American way of war. Comfortable with outsourcing security in Sunni areas to an untrained civilian militia, both the Iraqis and Americans turned a blind eye to the fact that ISIS would make the Sunni Awakening an important target in order to reestablish core sanctuaries inside Iraq. The authors point with amazement to the gradual release of hard-core ISIS prisoners (2008–11) back into their communities as one of several factors that helped fuel the growth of ISIS from its post-surge nadir. While the reasons for this shortsighted approach were undoubtedly political and legal in nature, these

policies surely have contributed to the untimely deaths of thousands of Iraqis and the loss of much territory to ISIS. As of 2015, nineteen of twenty of ISIS's top leaders were formerly in American custody at Camp Bucca before being released or escaping from custody.

Overall, I highly recommend this book to policy makers, educators, and military professionals who seek a deeper understanding of the ISIS movement. The authors have provided a very believable representation of a contemporary group that I believe will be vindicated by additional research in the future. Until that time, this book will become the basis for most of our understanding of a highly secretive and effective pseudostate that remains a threat to the region and beyond.

CRAIG WHITESIDE



Muth, Jörg. *Command Culture: Officer Education in the U.S. Army and the German Armed Forces, 1901–1940, and the Consequences for World War II*. Denton: Univ. of North Texas Press, 2013. 376pp. \$29.95

Dr. Jörg Muth has written a serious comparative account of the German and American precommissioning courses and general staff colleges from 1901 to 1940. Any new work comparing German and American military effectiveness in the first half of the twentieth century is guaranteed to be controversial, and Muth certainly achieves controversy. However, there exists a significant revisionist school of thought that offers an interpretation much different from Muth's.

The May 2010 Society of Military History annual meeting, held at the Virginia

Military Institute, featured a very well-attended roundtable that posed the question of American or German operational or tactical superiority. The panel moderator first asked how many of the historians in the room had spent their teenage years reading books promoting the vaunted Prussian and German militaries. Nearly every hand went up. Attracted by the works of Heinz Guderian, F. W. von Mellenthin, Liddell Hart, J. F. C. Fuller, and others, many of these teenagers grew up to be believers in the conventional wisdom that the Germans got it pretty well right. A complementary opinion was that the American military forces got very little right. In 1986, Heller and Stofft's *America's First Battles* became the standard history for those who found in the German army the bravery, intelligence, and aggressive leadership they sought for America.

Muth and this reviewer were both in the audience for the 2010 roundtable, and both of our hands went up. However, the revisionist school, with Michael Doubler's *Closing with the Enemy* (1994), Keith Bonn's *When the Odds Were Even* (1994), and Peter Mansoor's *GI Offensive in Europe* (1999) in the vanguard, is alive and well. Perhaps the most useful direct discussion of this historiographic misalignment was Brian Linn's piece in the *Journal of Military History* (April 2002) "The American Way of War Revisited" and the comments in response by Russell Weigley. Linn's article and Weigley's response effectively frame the distinct difference between interpretations that hold that the German armed forces in both World War I and World War II either were superior to the armed forces of the United States or were not.

Muth has significant challenges using primary and secondary sources.

He seems to relish his biases, and even partly explains those biases in the "Author's Afterword," which Muth states was added upon the sage advice of Edward M. Coffman and Dennis Showalter. Muth's characterization of U.S. Army officers—as people from whom he should hide as a youth hanging out with American soldiers on maneuvers—may be more self-revelatory than Muth realizes.

Muth arguably tries to do too much in a single book. His interpretation of officer education in both Germany and the United States focuses on two levels: cadets in their precommissioning programs and field-grade officers attending the equivalent of a general staff college. Unfortunately, Muth does little beyond making assertions unsupported by evidence. These assertions are frequently that American army officer education was bad, and that the equivalent in Germany was good. He absolutely fails to place either education system in its historical context, going so far as to say that the word *Prussia* would be needlessly complicating, and that he therefore only uses *Germany*. Muth claims that "school solutions" at Leavenworth were "always the norm" and that "ineffective courses were led by instructors who sometimes lacked knowledge of their fields and usually failed in didactics and pedagogics." The only footnote to this paragraph refers the reader to Craig Mullaney's *Unforgiving Minute* about junior officers and tactical combat in Afghanistan. No other source is cited, except for a vague reference to a 2000 West Point graduate.

This is not an isolated case. There are multiple unsubstantiated claims throughout the book. For two more examples, Muth says nothing of the poor reputation of the XI Corps of the Army of the Potomac when he asserts

that German immigrants made for highly respected soldiers in the American Civil War. He also misses the First and Second Schleswig-Holstein Wars of 1848–51 and 1864, respectively, when he asserts that in 1866 Prussia had not been at war for nearly fifty years.

Despite these significant shortcomings, this reviewer hopes that Muth continues to contribute to both the conversation and the controversy.

PETER J. SCHIFFERLE



Philbin, Tobias R. *Battle of Dogger Bank: The First Dreadnought Engagement*. Bloomington: Indiana Univ. Press, 2014. 198pp. \$32

This title is the latest work from American naval historian Tobias Philbin, who is probably best known for his 1982 biography of Admiral von Hipper. In the author's words, the book is "designed to provide new insights into the first battle between the largest fighting machines of the early twentieth century." As such, one might expect that a detailed analysis of the conduct of the battle itself would form the heart of the work, with perhaps a supporting explanation of the tactics employed on both sides and a discussion of whether these were or were not in line with prewar expectations. This could have been further supported by brief chapters explaining the strategic situation in the naval war at that point; the role of the key personalities; and the original thinking behind the development of the "fast Dreadnought cruiser" as a warship type, insofar as it might help explain the platform's performance in the battle itself. The work could then have been concluded with a discussion on the lessons learned and whether the

proposed corrective measures were successful. In other words, the focus should have been clearly on the engagement itself and what it vindicated or didn't.

Sadly, however, and despite good intentions, Philbin falls well short of this aim. His coverage of the actual battle is scanty and disjointed, and the remainder of the work is notably deficient or simply inaccurate. This is doubly frustrating given that this battle, the first of only two dreadnought-versus-dreadnought engagements in the entire war, probably represented each side's "last, best chance" to put things right, so to speak, before the better-known battle of Jutland a year later. As such, it is indeed an important area for study by the naval historian.

Philbin's difficulties are threefold. First, and as intimated, the balance is arguably wrong between the coverage of the battle itself and the supporting text. He devotes only 30 of the 150 or so pages to actual analysis of the battle, with the remaining pages dealing with the supporting areas. Unfortunately, these 30 pages, more than many others, fall victim to the second difficulty he has, which is in developing a clear and coherent narrative of a series of events, free from repetition and diversion. Rather than recounting the main features of the engagement in a chronological fashion, he chooses to take the different perspectives of the individual ships involved, which does not help the reader elucidate the decision making as it might have appeared to the opposing fleet commanders at the time—a feature central to his stated aim—and leads to a nonsequential presentation of the main events. None of this is helped by the maps in the book that, although reproductions of the original battle reports and histories, are almost unreadable in the scale presented. Thus, despite

being fairly familiar with the overall engagement, I found myself resorting to Wikipedia for a quick reminder and sanity check. Repetition is also rife throughout the book, sometimes in successive paragraphs, pages, and even endnotes, which makes the reader's journey more laborious than it need be.

The real worry, though, is his third difficulty: that of accuracy and the incorporation of a comprehensive coverage of the relevant scholarship. On the accuracy side, some of the construction dates for the ships involved are incorrect, even according to the sources that he does use; he cites the wrong Lambert in the text on page 6; on page 24, he claims Dogger was the first "battle" in the Anglo-German naval race when it was, of course, the first *dreadnought* engagement; while on page 27 he has HMS *Vernon* as "the gunnery school for the Royal Navy," when it was actually HMS *Excellent*. To make matters worse in the context, Admiral John "Jacky" Fisher was of course closely associated with both of these establishments, albeit at different points in his career. In addition, and while not as specific, there are all sorts of other, more general omissions and inaccuracies in the presentation of the powder vulnerabilities, the ammunition and gunnery practices in use, and the train of thought that led to the all-big-gun ordnance, all of which could have been corrected by reference to some of the more current scholarship from the likes of Jon Sumida, John Brooks, and Norman Friedman. Perhaps most importantly, though, and given that the author attempted to cover the origins of the battle cruiser type in his second chapter, it was disappointing to find Admiral Fisher's role in the whole debate minimized, and the relationship between the true dreadnought and its

battle cruiser variant simplified to an unrealistic degree. This is no trivial matter, because, to a greater or lesser extent, the fact that the battle cruiser was essentially performing in a role that had not been originally envisioned by its creators goes a long way toward explaining the very mixed results these ships achieved. Once again, this could have been better represented with a more searching inclusion of some of the more cutting-edge findings from Sumida, Nicolas Lambert, Matthew Seligmann, and others.

In sum, this book will probably disappoint the serious historian of the period. It does gather together in one place a host of interesting and related facts about the battle and its participants. Given that these can form useful "points of departure" for future work in this area, as well as informing and inspiring the amateur naval enthusiast, all is not lost. But the book could have been so much more.

ANGUS ROSS



Huang, Chun-chieh. *Taiwan in Transformation: Retrospect and Prospect*. 2nd ed. New Brunswick, N.J.: Transaction, 2014. 233pp. \$52.95

As a native Taiwanese deeply steeped in Chinese historical and philosophical sources, Chun-chieh Huang adds dimensions that are less emphasized in many other perceptive books on contemporary Taiwan. A prolific scholar of treatises on Confucian thought, Huang believes that Taiwan can bring much to contemporary Confucian thinking, since Taiwan interprets the world through a lens of contemporary and vibrant democracy—as opposed to China's legacy of the Cultural Revolution and party control.

In fact, he asserts that Taiwan can help lead China's Confucian revival as the gem in the crown of Confucian thinking.

The book is divided into approximately equal sections of retrospect and prospect, indicating the relative importance that the author gives to understanding the past as a foundation for understanding the present and the future. Before Huang explores the individual and social psychology of what it means to be a "New Taiwanese," he reviews the underlying nostalgia that almost all ethnically Chinese people, including those resident on Taiwan, have for cultural China. This is a powerful shared emotion that has ramifications for contemporary cross-strait politics. Colonized by the Japanese between 1895 and 1945, the Taiwanese suffered second-class Chinese citizenship and were labeled spies and collaborators by their ethnically similar mainland Chinese counterparts. Aside from this broad-based cultural discrimination, the millions of Taiwanese were then also repressed politically on the island by the million or so Nationalists who came to Taiwan after World War II, first to set up a provincial government to replace the Japanese occupying government, then to set up the Republic of China Nationalist government at the end of the Chinese civil war.

The book recaps key eras in Taiwan's history, including the populating of the island by Haklo from Fujian Province, Hakka from Guangdong Province, the Dutch (1624–61), Koxinga and the Ming loyalists (1661–83), the Qing (1683–1895), and the Japanese (1895–1945).

Huang points out that the Chinese are "*Homo historicus*" most clearly, and that all ways forward must take into account the patterns and details of the past when considering the future.

According to Huang, Taiwan's path forward in cross-strait relations lies between those extremes of citizens who in 2013 favored quick integration (3 percent) and those who favored quick independence (7.2 percent). He recommends a necessary long-term steady dialogue examining and reconciling the mutual histories of Taiwan and mainland China. That is to say, Huang is not a proponent of maintaining the status quo but seeks a Confucian "middle way": carefully and compassionately forging an increasing reconciliation over time. Using a metaphor from literature, he posits that Taiwan is an orphan trying to reconcile with its parent. The pathos of the scenario is lessening because the orphan has had great success, but nevertheless there is a core of Chinese identity that still remains to be reconciled with the ever-emerging Taiwanese identity.

Although, as noted, Huang is a native observer of the Taiwanese scene, the book is gracefully written in fluid, clear English. It is useful as core reading for undergraduate and graduate courses on Taiwan, as well as for readers seeking to deepen their knowledge of East Asia. It also provides context that should be considered when thinking about U.S. policy in the Asia-Pacific region.

GRANT F. RHODE

 OUR REVIEWERS

Bill Allison is professor of history at Georgia Southern University. He is the author of several books, including *Military Justice in Vietnam: The Rule of Law in an American War* (Kansas) and *My Lai: An American War Crime* (Johns Hopkins). He is a past vice president and current trustee of the Society of Military History and recently served as the General Harold K. Johnson Visiting Chair in Military History at the Army War College.

T. J. Johnson is an armor officer and serves as an instructor in the National Security Affairs Department at the U.S. Naval War College. He is a graduate of Ripon College (Ripon, Wis.) and received his master's degree from the School of Advanced Military Studies at Fort Leavenworth. He has written for a number of publications, including the *RUSI Journal* and *Defense News*.

Dr. John T. Kuehn is the Major General William Stofft Chair for Historical Research at the U.S. Army Command and General Staff College. He is a retired naval flight officer (2004) and author of *Agents of Innovation: The General Board and the Design of the Fleet That Defeated the Japanese Navy* (2008) and *A Military History of Japan* (2014). His latest book is *Napoleonic Warfare: The Operational Art of the Great Campaigns*.

Major John J. Merriam joined the faculty of the Stockton Center for the Study of International Law as Associate Director for Land Warfare and associate professor in June 2014 after graduating from the Naval War College with highest distinction (first in class). Before coming to the War College, Major Merriam served in a variety of international and operational law positions, including as a special forces group judge advocate and a brigade combat team judge advocate.

Grant F. Rhode holds a PhD from the Fletcher School of Law and Diplomacy at Tufts University in Asian diplomatic history and foreign policies. In addition to being a visiting researcher at the Boston University Center for the Study of Asia, he is an associate in research at the Fairbank Center for Chinese Studies at Harvard University.

Captain Dale Rielage serves as Director for Intelligence and Information Operations for the U.S. Pacific Fleet. He has served as Third Fleet N2, Seventh Fleet Deputy N2, Senior Intelligence Officer for China at the Office of Naval Intelligence, and director of the Navy Asia Pacific Advisory Group.

Angus Ross is a retired Royal Navy officer and professor of joint military operations at the Naval War College. A graduate of the Naval War College, he received a second MA from Providence College and is currently working on PhD studies, studying naval transformation prior to the First World War. His recent published works include articles in this journal and others on the dilemma facing both the Royal Navy and the U.S. Navy in the wake of the *Dreadnought* revolution.

Peter J. Schifferle, PhD, is professor of history at the School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, and the author of *America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II*.

Professor Stigler teaches classes on foreign policy and national security at the Naval War College, focusing on the international and domestic influences on U.S. national security policy. Stigler has published in *International Security*, *The National Interest*, *Joint Force Quarterly*, and the *Naval War College Review*. He currently has a book under contract with the academic press Transaction (affiliated with Rutgers University) titled *The Military: A Presidential Briefing Book*. The work is a critical examination of the military from the standpoint of an incoming president, examining issues such as force planning, crisis response, presidential command during wartime, strategic change, and postwar reconstruction efforts.

Professor Whiteside teaches theater security at the Naval War College Monterey Program. He is a graduate of West Point and has a PhD in political science from Washington State University. His primary research area is the strategy and tactics of the Islamic State movement from 2003 to the present.

REFLECTIONS ON READING

Naval War College Professor John E. Jackson is the Program Manager for the Chief of Naval Operations Professional Reading Program.

Books cannot be killed by fire. People die, but books never die. No man and no force can put thought in a concentration camp forever. No man and no force can take from the world books that embody man's eternal fight against tyranny. In this war, we know, books are weapons.

FRANKLIN ROOSEVELT

President Franklin Roosevelt responded to the wholesale burning of so-called offensive books in Nazi Germany by encouraging Americans to use books, and the knowledge they contained, as weapons in the war of ideas. With millions of U.S. servicemen deployed around the globe in World War II, a group of patriotic citizens and literary industry organizations came together to put books from both well-known and fledgling authors in the hands of these servicemen, who were desperate to fill the idle hours they endured from foxhole to fleet unit. The Council on Books in Wartime assembled a powerful alliance of authors, publishers, and printers to create unique paperback books, sized to fit in the pockets of military uniforms. Unlike traditional paperbacks, the Armed Services Editions (ASEs) were bound on the short side of the text block rather than the long side, with two columns of text on each page. During the period 1943–46 the Council produced and distributed over 123 million copies of 1,322 different titles! Reflecting the economics of the day, the printing cost was approximately seven cents per copy, and a one-cent-per-copy royalty was split between the authors and publishers.

Authors Joseph Conrad, F. Scott Fitzgerald, C. S. Forester, Zane Grey, Jack London, John Steinbeck, Mark Twain, H. G. Wells, and scores of others participated. One measure of the tremendous success of this program is found in a newspaper article written during the war: “The hunger for these books, evidenced by the way they are read to tatters, is astounding even to the Army and Navy officers and the book-trade officials who conceived of the editions.”

The impact of this remarkable program was far greater than many had expected. One soldier wrote,

You are instilling in them, whether you are aware of it or not, a taste for good reading that will surely persist come victory. I have seen many a man who never before had the patience or inclination to read a book, pick up one of the Council's and become absorbed and ask for more.

The Armed Services Editions helped create a nation of readers.

If you want more detail about this forgotten chapter of World War II history, the story of the ASEs is beautifully told in Molly Gupptill Manning's book *When Books Went to War: The Stories That Helped Us Win World War II*. Her well-researched and lively text provides a comprehensive history of the ASEs, set within the context of the greater conflict.

Today, the Chief of Naval Operations Professional Reading Program has at its core the same mission as the ASEs: to get quality books into the hands of our military servicemen and -women. While smaller in scale (the modern-day program has shipped tens of thousands of books, vice millions of ASEs) the intent is the same: using words and ideas as weapons in the defense of freedom. The mission of the Chief of Naval Operations Professional Reading Program is to assist sailors on their career-long path of personal development in the naval profession. Reading professionally relevant books will help sailors develop as leaders of character who are *strategically minded critical thinkers* and *skilled naval and joint warfighters*, capable of meeting the operational and strategic challenges of the future.

JOHN E. JACKSON

(My thanks go out to Electrician's Mate, Master Chief Jack Ryan, USN [Ret.], an ardent reader of this column and a strong supporter of education for our sailors. His recent recommendation of Molly Manning's fascinating book opened my eyes to this long-forgotten chapter of military history.)