# NAVAL WAR COLLEGE REVIEW

Winter 2018

Volume 71, Number 1



# Cover

USS Harnett County, shown just before departure for Vietnam in 1966, is now BRP Sierra Madre. The dilapidated former U.S. tank landing ship is currently "on station" in the Spratly Islands in the South China Sea—aground on Ayungin, or Second Thomas, Shoal. Philippine marines stationed aboard the ship maintain a maritime presence to bolster their country's claim to the disputed area, also claimed to varying degrees by China, Vietnam, and Malaysia. In this issue, in "Getting Serious about Strategy in the South China Sea," authors Hal Brands and Zack Cooper analyze the four basic strategic options by which the United States might respond to China's mode of advancing its interests in this area of contrasting and conflicting claims, capabilities, methods, and values.

Credit: United States Naval Institute

# NAVAL WAR COLLEGE REVIEW





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Fax: 401.841.1071

DSN exchange, all lines: 841

Website: www.usnwc.edu/Publications/

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The *Naval War College Review* was established in 1948 as a forum for discussion of public policy matters of interest to the maritime services. The thoughts and opinions expressed in this publication are those of the authors and are not necessarily those of the U.S. government, the U.S. Navy Department, or the Naval War College.

The journal is published quarterly. Distribution is limited generally to commands and activities of the U.S. Navy, Marine Corps, and Coast Guard; regular and reserve officers of U.S. services; foreign officers and civilians having a present or previous affiliation with the Naval War College; selected U.S. government officials and agencies; and selected U.S. and international libraries, research centers, publications, and educational institutions.

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Periodicals postage paid at Newport, RI. POSTMASTERS, send address changes to: *Naval War College Review*, Code 32S, Naval War College, 686 Cushing Rd., Newport, RI 02841-1207.



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# FROM THE EDITORS

In spite of some early signs of a hardening attitude toward People's Republic of China (PRC) provocations in the South China Sea, the Trump administration thus far has not articulated a vision of how it intends to deal with what is, in many respects, the sorest spot in U.S.-Chinese relations. Hal Brands and Zack Cooper, in "Getting Serious about Strategy in the South China Sea," analyze the broad strategic options facing the United States and make the case that a carefully calibrated combination of deterrence and "offsetting" actions holds the most promise. They argue that the Chinese have shown some willingness to pull back if challenged sufficiently by the United States, and hence that such a strategy, in spite of obvious risks, is not bound to fail. Less clear is the extent to which the United States is prepared to jeopardize other aspects of its relationship with the PRC in order to follow through effectively on such a strategy. Hal Brands is the Henry A. Kissinger Distinguished Professor of Global Affairs at the Johns Hopkins School of Advanced International Studies; Zack Cooper is the Senior Fellow for Asian Security at the Center for Strategic and International Studies.

In "Antiaccess Warfare as Strategy: From Campaign Analyses to Assessment of Extrinsic Events," Sam J. Tangredi invites us to consider China's encroachments in the South China Sea, in effect, as antiaccess warfare at the strategic level. His argument thus nicely complements the article of Brands and Cooper. The United States, he argues, must broaden the currently fashionable concept of *antiaccess/area-denial* (A2/AD) beyond the military operational level to encompass other elements of national power, as well as to take into greater account the potential role of actions or events extrinsic to the theater in question. Doing so would require, he suggests, significant adjustments in decision-making mechanisms at the national level. A retired USN captain, Sam Tangredi is director of the newly created Institute for Future Warfare Studies at the Naval War College.

Kevin Rowlands provides an important reminder of the strategic importance of rivers in affording unique "access" to the land, particularly in older times or in areas where roads are lacking, such as Africa and Latin America. In "Riverine Warfare: Exploiting a Vital Maneuver Space," he offers an overview of riverine operations historically, from ancient Egypt through the American Civil War to recent conflicts in Vietnam, Iraq, and Colombia. Rowlands deplores the relative neglect of this history; the absence of sustained analysis of its particular features;

and, related to it, the transient nature of riverine forces, including those of the United States. Kevin Rowlands is a commander in the Royal Navy.

Ben Wan Beng Ho, in "The Aircraft Carrier in Indian Naval Doctrine," offers perhaps the first close analysis of the role of India's two (eventually to be three) light aircraft carriers in a notional war with Pakistan. Noting that these vessels suffer severely from what he calls the "small-deck carrier conundrum," under which any significant projection of offensive power seriously reduces the ship's defensive strength, he argues that the only sensible employment of such ships—at least at the outset of a conflict—would be securing the sea lines of communication (SLOCs) for vital Indian commercial traffic. He suggests that the Indian navy would be well advised to rethink the balance between investment in carriers and, especially, long-range cruise missiles that can hold at risk Pakistan's developing A2/AD capabilities. Ben Ho is a senior analyst with the military studies program of the S. Rajaratnam School of International Studies in Singapore.

Much can be learned from not-so-recent history about the challenges facing middle-rank naval powers such as India in a global environment of technological change and strategic uncertainty. In "From a Prestige Fleet to the Jeune École: French Naval Policy and Strategy under the Second Empire and the Early Third Republic (1852–1914)," Hugues Canuel surveys the history of the French navy's struggle—and ultimate failure—to develop a realistic strategy and force structure to counter Britain's global naval dominance. Hugues Canuel is a captain in the Royal Canadian Navy and director of programs at the Canadian Forces College in Toronto.

John Nash, in "Sea Power in the Peloponnesian War," also uses history—in this case, ancient history—to illustrate enduring issues relating to the role of sea power in war and peace. While some scholars have tended to downplay the continuities between naval operations in the present era and those of classical Greek and Roman times, Nash argues that the Greeks featured in Thucydides's famous history of the Peloponnesian War (late fifth century BCE) were quite conscious of such matters as the importance of command of the sea, control of SLOCs, and defense of trade and the role of fleets in diplomacy. John Nash, a reserve officer in the Royal Australian Navy, is a PhD candidate in classics at the Australian National University.

# IF YOU VISIT US

Our editorial offices are 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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Statement of ownership, management, and circulation (required by 39 USC 3685, PS Form 3526-R, July 2014) of the Naval War College Review, Publication Number 401390, published four times a year at 686 Cushing Road, Newport, R.I., 02841-1207. General business offices of the publisher are located at the Naval War College, 686 Cushing Road, Newport, R.I., 02841-1207. Name and address of publisher is President, Naval War College, 686 Cushing Road, Newport, R.I., 02841-1207. Name and address of editor is Dr. Carnes Lord, Code 32, Naval War College, 686 Cushing Road, Newport, R.I., 02841-1207. Name and address of managing editor is Dr. Robert Ayer, Code 32A, Naval War College, 686 Cushing Road, Newport, R.I., 02841-1207. Owner is the Secretary of the Navy, Navy Department, Washington, D.C., 20350-1000. The purpose, function, and nonprofit status of this organization and its exempt status for federal incometax purposes have not changed during the preceding 12 months. Average number of copies of each issue during the preceding 12 months is: (a) Total number of copies: 8,172; (b)(1) Requested subscriptions (outside Newport County): 6,473; (b)(2) Requested subscriptions (inside Newport County): 373; (b)(3) Requested distribution outside USPS\*: 598; (c) Total requested circulation: 7,444; (d)(1) Nonrequested distribution by mail (outside Newport County): 18; (d)(2) Nonrequested distribution by mail (inside Newport County): 2; (d)(3) Nonrequested copies by other classes: 37; (d)(4) Nonrequested distribution outside the mail: 455; (e) Total nonrequested distribution: 512; (f) Total distribution: 7,955; (g) Copies not distributed: 217; (h) Total: 8,172; (i) Percent requested circulation: 94%. Issue date for circulation data: Summer 2017; (a) Total number of copies: 8,206; (b)(1) Requested subscriptions (outside Newport County): 6,495; (b)(2) Requested subscriptions (inside Newport County): 405; (b)(3) Requested distribution outside USPS\*: 717; (c) Total requested circulation: 7,617; (d)(1) Nonrequested distribution by mail (outside Newport County): 72; (d)(2) Nonrequested distribution by mail (inside Newport County): 6; (d)(3) Nonrequested copies by other classes: 52; (d)(4) Nonrequested distribution outside the mail: 389; (e) Total nonrequested distribution: 519; (f) Total distribution: 8,136; (g) Copies not distributed: 70; (h) Total: 8,206; (i) Percent requested circulation: 94%. I certify that all information furnished is true and complete.

Robert Ayer, Managing Editor



Rear Admiral Jeff Harley is the fifty-sixth President of the U.S. Naval War College. The College is responsible for educating future leaders, developing their strategic perspective and critical thinking, and enhancing their capability to advise senior leaders and policy makers.

Admiral Harley is a career surface warfare officer whose sea-duty assignments have included command of USS Milius (DDG 69), Destroyer Squadron 9, and Amphibious Force Seventh Fleet / Expeditionary Strike Group 7 / Task Force 76. During his command of Milius, the ship participated in combat operations supporting Operation IRAQI FREEDOM and his crew won the Battle Efficiency Award and the Marjorie Sterrett Battleship Fund Award for overall combat readiness.

Admiral Harley attended the University of Minnesota, graduating with a bachelor of arts in political science, and received master of arts degrees from the Naval War College and the Fletcher School of Law and Diplomacy, Tufts University. Additionally, he served as a military fellow at the Council on Foreign Relations in New York City.

# PRESIDENT'S FORUM



The Naval War College's Direct Role in Enhancing Readiness and Lethality

THE NAVAL WAR COLLEGE'S educational and research efforts are focused clearly on maintaining a careful balance between

learning the timeless lessons of the past and keeping a steady weather eye on trends that promise to shape the nature of future warfare. Over the past year, we have reoriented our course of study to prepare our students better to man and lead a Navy in which readiness is the key and lethality is the product.

- The College added three weeks of additional war fighting–focused studies, kicked off by a four-day Future Warfighting Symposium, which included lectures and discussions on topics such as emerging technologies, cyber warfare, and space operations.
- optimize near-term support to the fleet. In particular, the College provided greater focus on understanding today's threats while further enhancing combat readiness through expanded teaching of maritime warfare. In his "Design for Maintaining Maritime Superiority," the Chief of Naval Operations (CNO) charged the Navy with testing and refining naval power concepts "through focused wargaming, modeling, and simulations" that will connect directly to fleet exercises and training. Implicit in this charge is the challenge that operations research and analysis across the Navy enterprise must be conducted in a cohesive or holistic manner that provides what the Navy's leadership needs to make fully informed decisions. We have answered this clarion call. The College has forged increasing connections among experimentation, campaign analysis, and war gaming. The College of Maritime Operational Warfare has provided focused courses, assist visits, and routine support to maritime

- operations center / scenario-based exercises for Navy leaders at all ranks and grade levels.
- The Russia Maritime Studies Institute continued to expand and mature. This institute occupies a unique space at the nexus of the academic, policy, and operational communities, and the resident scholars study a wide variety of issues, including naval policy, strategy, and operations; maritime technologies; shipbuilding; maritime law; deterrence; and naval diplomacy.
- We expanded the maritime-centric portions of our curricula to anticipate and respond to changes in the strategic environment and to fulfill our mission of optimizing understanding of sea control. The courses offered by the College of Naval Warfare at the most senior level and in the College of Naval Command and Staff at the intermediate level are, first and foremost, about war fighting and gaining sea control in a contested environment. Both types are designed to challenge students intellectually in the theory and practice of war fighting and are geared toward war-fighting concepts that will prepare our future military leaders to fight the maritime force across all warfare domains. The capstone event for the 2016-17 academic year focused on the U.S. Pacific Command area of responsibility. Work being done by various other Naval War College activities—such as the Halsey Research Group, the China Maritime Studies Institute, and the Russia Maritime Studies Institute—has provided students with opportunities to deal with current capabilities and emerging issues.
- Although the College functions as a joint school, we have sprinkled an increasingly large dose of "salt water" on our research and gaming activities. In the past year the Navy Strategic Enterprise, through the vehicle of the Strategic Executive Group, has worked to provide more fleet input into the selection and prioritization of war games. A new vehicle for this sharing is the Wargaming Virtual Community of Practice, which is currently in development, with an initial operational capability scheduled for the closing months of 2017, on both the unclassified and classified networks. Our Center for Naval Warfare Studies (CNWS) has strengthened the faculty specifically in maritime-centric areas to address better such issues as future fleet design, the impact of a reinvigorated Russian navy, and the emergence of "gray-zone" warfare at sea.
- The College's efforts to focus on the future war-fighting environment have driven us to conduct an ongoing reassessment of how best to prepare students for the strategic environment articulated in the CNO's "Design for Maintaining Maritime Superiority," with its emphasis on contestation of the

maritime system, the rising influence of the global information system, and the increasing rate of technological change. With regard to the information domain, the College recently doubled the cyber content in its curricula. We have coordinated with the Naval Postgraduate School on a core cyber curriculum with overlap between the two institutions in four content areas: cyber concepts; international cyber law, ethics, and standards; military cyber operations; and cyber policy and strategy.

- Our talented CNWS researchers continued to support future thinking and analysis through work with the College's Center for Cyber Conflict Studies and the work of the Stockton Center for the Study of International Law in the area of cyber conflict.
- We established the Institute for Future Warfare Studies in February 2017 as a research-and-study department. It aims at understanding how armed conflict may evolve in the future and how the U.S. Navy can prepare for it better.
- The College strove to establish itself further as the locus of international maritime cooperation. Through a series of initiatives undertaken in this spirit, it has sought to promote ever-greater levels of cooperation and interoperability among the world's navies and coast guards.
- We increased the frequency of our regional alumni symposia from one to two annually. These symposia are international academic conferences premised on the belief that military education is not solely the product of a schoolhouse but rather a lifelong attempt to acquire knowledge about the profession of arms.

The College is moving out smartly to execute a vision in which the institution is more supportive of the needs of the operating forces, more attentive to the unique challenges and opportunities represented by our naval heritage and our focus on flexible sea power as an instrument of national will, more cognizant and attuned to the impact that technological change will have on our maritime and joint forces, and more assiduous in our efforts to enhance maritime cooperation and friendship around the globe.

Hal Brands is the Henry A. Kissinger Distinguished Professor of Global Affairs at the Johns Hopkins School of Advanced International Studies and a senior fellow at the Center for Strategic and Budgetary Assessments (CSBA). He previously served as special assistant to the Secretary of Defense for strategic planning from 2015 to 2016. His books include What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush (Cornell University Press, 2014) and Making the Unipolar Moment: U.S. Foreign Policy and the Rise of the Post–Cold War Order (Cornell University Press, 2016). His most recent book is American Grand Strategy in the Age of Trump (Brookings Institution, 2018).

Zack Cooper is the Senior Fellow for Asian Security at the Center for Strategic and International Studies (CSIS). While at CSIS, Dr. Cooper has authored reports on U.S. strategy in Asia and options for countering Chinese coercion in maritime Asia. Prior to joining CSIS, Cooper worked as a research fellow at CSBA and a staffer at the National Security Council and the Pentagon. Dr. Cooper received a BA from Stanford University and an MPA, MA, and PhD from Princeton University.

# GETTING SERIOUS ABOUT STRATEGY IN THE SOUTH CHINA SEA

Hal Brands and Zack Cooper

merica is suffering from a strategy deficit in the South China Sea. For nearly a decade—and at accelerated speed since 2014—Beijing has been salami slicing its way to a position of primacy in that critical international waterway, while eroding the norms and interests Washington long has sought to defend. To date, however, Washington has struggled to articulate an effective response. The Obama administration opposed Chinese maritime expansion rhetorically and worked to improve the overall American military and geopolitical posture in the Asia-Pacific. Yet the administration only occasionally mustered the leverage necessary to check China's quest for dominance of the South China Sea, and often it was unable even to impose substantial long-term costs on Beijing for its short-term assertiveness. For its part, the Trump administration has yet to formulate or implement a coherent South China Sea strategy, and it has swung from suggesting that America might deny Chinese access to islands in the South China Sea physically—something approaching an act of war—to appearing subsequently to deprioritize the issue.

Today, the situation in the South China Sea is reaching a critical stage as Chinese advances accumulate, America's room for maneuver diminishes, and observers throughout the region wonder whether the United States is up to the challenge. And yet Washington still is searching for a strategy.

Part of the trouble, no doubt, lies in the sheer difficulty of meeting a calculated Chinese offensive that is simultaneously audacious and subtle, one that is changing the geopolitical status quo profoundly but incrementally, in ways designed not to provoke a decisive response. Yet getting America's South China Sea strategy right also requires thinking more-systematically about what Washington

should seek to achieve and what it should hazard in the effort. It has become common, in recent years, to hear calls for the United States to get tough with China over its illegal island building, militarization of disputed features, and coercion of U.S. allies and partners. 1 Yet it is far less common to hear in-depth discussion of what the long-term goal of such a program should be, whether that goal is actually achievable, and how much cost and risk the United States should accept along the way.<sup>2</sup> This is dangerous, because it increases the possibility that America may commit itself to goals that cannot be obtained at a reasonable price, or simply may follow a muddled, confused policy on a crucial geopolitical issue.

What is needed is to elevate the strategic debate by identifying clearly—and assessing rigorously—the main options for countering China's offensive in the South China Sea. Four basic strategies are available.

- 1. Rollback aims to push China back from its recent gains in the South China Sea and restore the status quo ante; it accepts a substantial likelihood of military conflict as the price of attaining this ambitious objective.
- 2. Containment accepts Chinese gains made to date, in recognition of just how difficult and dangerous it would be to reverse those gains, but draws the line firmly—including by threat or use of military force—against further advances.
- 3. Offset does not seek to prevent further Chinese encroachments in the South China Sea, but aims to penalize Beijing for destabilizing actions, while also offsetting their impact through measures that strengthen the overall U.S. position in the region.
- 4. Accommodation accepts Chinese dominance of the South China Sea, on the theory that it is simply too costly and perilous to compete with Beijing in its own back yard, and instead seeks to ensure a smooth transition to Chinese regional primacy.

None of these strategies is perfect, and each has substantial liabilities that accompany its advantages. In the final analysis, however, a strategy that blends the most-compelling aspects of containment and offset is best suited for protecting U.S. interests at a reasonable cost—and for steering the proper course in a turbulent South China Sea.

# THE SITUATION IN THE SOUTH CHINA SEA

The situation in the South China Sea is both complex and simple. The complexity lies in the fact that this body of water is the subject of multiple disputes among China, Taiwan, Vietnam, the Philippines, Malaysia, Brunei, and most recently Indonesia.3 The simplicity lies in the fact that only one of those claimants— China—has been making a concerted drive for regional primacy.

In 2009, China surprised regional observers by submitting to the United Nations its so-called nine-dash-line map, which claimed up to 90 percent of the South China Sea. Since then, China has become increasingly coercive in dealing with its South China Sea neighbors, through measures such as asserting "indisputable sovereignty" over disputed features and seizing effective control of Scarborough Shoal from the Philippines in 2012. Meanwhile, China has upgraded its facilities in the Paracel Islands, particularly the military base on Woody (Yongxing / Phu Lam) Island, which now houses a military-grade airfield, aircraft shelters, and missile batteries. Since 2013, moreover, China has "reclaimed" roughly 3,200 acres of land in the Spratly Islands, compared with just 120 acres for Vietnam and less (or none) for the other claimants. 4 Beijing has created artificial islands and military bases on seven features in the Spratlys, three of which now house three-kilometer-long airfields with aircraft shelters, advanced radars, and point defenses.

In addition to expanding its military footprint, Beijing has announced and enforced fishing and resource-exploitation restrictions in various parts of the South China Sea, empowered its coast guard and maritime militia to interfere with the vessels of other nations, regularly allowed Chinese-flagged fishing boats to exploit endangered species in disputed areas, and made clear that it intends to disregard any legal challenges to its claims. In mid-2016, for instance, Beijing simply brushed aside the ruling of the arbitral tribunal that largely invalidated the nine-dash line and found that many of China's maritime claims and activities were not in accordance with the United Nations Convention on the Law of the Sea. Finally, Beijing has become more assertive in challenging foreign activity in the South China Sea by increasing its own military presence in the area, harassing American planes and vessels (as well as those of other countries), and warning Washington against "interfering" in China's ongoing maritime disputes.<sup>6</sup>

By any reasonable standard, then, recent years have seen a pattern of Chinese rhetoric and behavior geared toward making Beijing the dominant power in the South China Sea. Chinese gains have been incremental rather than sudden, and Beijing has calibrated its actions carefully to avoid triggering a military clash with Washington or galvanizing the region to balance against it. Nonetheless, the cumulative results have been significant. "In short order," writes one former Obama administration official, "China has laid the foundation for control of the South China Sea."8

So why does any of this matter to the United States? Some American experts on Asia assert that it does not—that Washington's own "core interests are not really at stake" in the South China Sea. After all, the United States has taken no position on who has sovereignty over the South China Sea and the various features therein, other than to argue that the disputes should be resolved peacefully through negotiations free from coercion. Why, then, should Washington take risks to prevent Beijing from controlling and exploiting maritime features that the United States maintains might be Chinese in the first place? The answer is that China's offensive is not simply a matter of who controls a bunch of rocks on the other side of the world; it is a challenge to a series of key U.S. interests in the South China Sea and the broader Asia-Pacific region.

From an economic perspective, trade through the South China Sea amounts to roughly U.S.\$3.4 trillion per year, and many U.S. allies and partners are highly

Part of the trouble . . . lies in the sheer difficulty of meeting a calculated Chinese offensive that is simultaneously audacious and subtle, one that is changing the geopolitical status quo profoundly but incrementally, in ways designed not to provoke a decisive response. dependent on both the commerce that passes through that waterway and the resources—from fish to oil and natural gas—that can be extracted from it. 12 Were China to become the predominant power in the area, it would have the

capability to put a choke hold on one of the world's most important trade routes if it wished to do so—or Beijing simply could use the implicit threat of doing so to coerce and influence other countries that rely disproportionately on this dynamic portion of the global commons.

From a military perspective, China's seven bases in the Spratlys (and its upgraded facilities in the Paracels) greatly extend the reach of both its antiaccess forces and its power-projection capabilities. Chinese bases in the Spratlys are some five hundred miles south of Woody Island, putting new areas at risk from Chinese missiles and aircraft. In peacetime, these bases provide Beijing with facilities to help it exert control over the South China Sea using military, coast guard, and maritime militia forces. In wartime, these bases would be vulnerable to U.S. attacks—but nonetheless they would allow Chinese forces to complicate American operations in support of the Philippines or other allies and partners.

Finally, from a geopolitical perspective, the stakes are high indeed in the South China Sea. The United States long has sought to prevent any rival power from dominating East Asia or a significant part thereof. America's standing in the Asia-Pacific is largely dependent on its ability to uphold existing rules of the road, such as freedom of navigation and peaceful resolution of disputes, and face down challenges to the region's stability and order, as well as its openness. Thus, permitting Chinese control over a critical part of a critical region would represent a major strategic setback for the United States; it also might embolden China to attempt to revise the status quo elsewhere, whether in Taiwan, the East China Sea, or the Indian Ocean. Not least, it would signal to regional observers that Washington no longer can play its traditional role in the Asia-Pacific, and thereby would encourage regional players to accommodate Beijing rather than

join with the United States to balance against an increasingly assertive China. Countries in Southeast Asia have been explicit about their need for continued U.S. engagement, lest they be forced to bandwagon with China, as the Philippines has done under Rodrigo Duterte. 16 Thus, from a geopolitical standpoint, the struggle over the South China Sea is not about "rocks," but about whether states in Southeast Asia and the greater Indo-Pacific region will align with the United States or China.

Although U.S. interests in the South China Sea are clear, U.S. policy there remains muddled.  $^{17}$  The Obama administration frequently warned China not to carry out "reclamation, construction, or militarization" in the South China Sea, but these statements created expectations among states in Southeast Asia that U.S. leaders were unwilling to fulfill. Meanwhile, Washington worked diligently to strengthen U.S. diplomatic relationships and military capabilities in the region, yet U.S. leaders refused to comment publicly on whether the U.S.-Philippine Mutual Defense Treaty would apply in the South China Sea. The United States also encouraged Southeast Asian states to push back against Chinese coercion in both diplomatic and legal forums, and the White House worked with Congress to begin upgrading the maritime awareness and security capabilities of allies and partners in the region. Yet, as well-intentioned as these efforts were, the Obama administration ended its second term with a more divided Association of Southeast Asian Nations (ASEAN), despite China's construction spree on disputed features and coercion of ASEAN members. Beijing's lead over its neighbors in military and other coercive capabilities also remained enormous, and in most cases—most notably the seizure of Scarborough Shoal in 2012—Beijing simply went ahead with reclamation, construction, militarization, or other destabilizing actions despite U.S. warnings or attempts at mediation. As Obama's presidency ended, there was a growing perception in the region—and even among some senior American policy makers—that the administration had drawn redlines that it ultimately had not upheld, and that too often it had failed to slow, let alone halt, China's drive for primacy.<sup>18</sup>

So far, the Trump administration too has struggled to articulate an effective approach. Administration officials initially took a hard line, with Secretary of State-designate Rex Tillerson suggesting in his confirmation hearing that Washington might prevent Beijing physically from accessing its artificial islands in the Spratlys. 19 Then the issue appeared to recede from the policy agenda as the administration focused on bilateral trade and North Korea as the dominant issues in U.S.-China relations. Although the U.S. military has conducted freedom-ofnavigation operations (FONOPs) to challenge China's (and other states') excessive claims, the administration has given the impression—which has been noted in key countries such as Vietnam—that it lacks an overall strategy for addressing Chinese advances.<sup>20</sup> Indeed, Vietnam's reported decision in July 2017 to back

down in the face of explicit Chinese threats, rather than to continue exploiting its own claimed offshore energy resources, provides a recent and disturbing indication of the effectiveness of Beijing's coercive strategy. The lack of top Asia-focused officials in place at the State Department and other key agencies only has exacerbated this problem. 22

As China consolidates existing gains, and perhaps seeks new ones, America's strategic options and maneuvering space only will decrease. It is imperative that U.S. leaders decide what course to follow—whether to roll back, contain, offset, or accommodate China's growing influence in the South China Sea.

# STRATEGIC OPTIONS

# Rollback

The most ambitious strategy would aim to roll back China's gains—essentially, to force Beijing to withdraw from key features in the South China Sea (certainly the artificial features in the Spratly Islands, and perhaps its holdings in the Paracel Islands as well), or at the very least to demilitarize those features by removing the military facilities and capabilities. As noted, Rex Tillerson initially appeared to support such a policy when he called not simply for halting Chinese island building but also for denying Beijing access to artificial islands constructed to date. <sup>23</sup> In addition to barring access to the islands, a rollback strategy might seek to force Beijing to walk back its maritime claims in the South China Sea—in particular, to abandon the nine-dash line and accept the 2016 arbitral tribunal ruling, which held that China must derive its maritime entitlements from legitimate claims to land features.

The core premise of a rollback strategy is that China's increasing dominance in the South China Sea poses an unacceptable risk to U.S. interests, and that the South China Sea will become a "Chinese lake" unless Beijing's advance is not simply halted but reversed. By this logic, permitting China to consolidate even its existing gains will allow it to threaten or disrupt trade flows, rob other Southeast Asian countries of badly needed economic resources, and strengthen its regional military position in ways that threaten U.S. freedom of action. Most importantly, regional states—always sensitive to who is winning the Sino-American competition for influence—will bandwagon with Beijing if they conclude that Washington lacks the capability or will to restore the status quo ante. The United States therefore should confront China in the South China Sea today, when it still enjoys a preponderance of military and geopolitical power in the region, rather than tomorrow, when the balance may have shifted decisively in China's favor, owing to Beijing's rapid economic growth and corresponding military buildup.

Rollback is thus an extremely forward-leaning strategy, one that would rely heavily on the threat or use of force, as well as other coercive measures, to compel

Beijing to pull back. At the most extreme, the United States might attack physically features in the Spratlys or Paracels, or threaten to do so, to eliminate their military facilities and force a Chinese withdrawal. A less aggressive alternative would be to blockade or quarantine the islands (on the legal theory that China enjoys no rights of access to islands it has created illegally), but U.S. forces still would have to be willing to risk war by intercepting Chinese ships or aircraft seeking to break the blockade. <sup>24</sup> As either a substitute for or complement to these approaches, the United States might use economic or diplomatic measures broadly applied trade sanctions, threats to recognize Taiwan's independence and conclude a formal mutual-defense treaty with Taipei, or other relatively dramatic nonkinetic moves—to generate the coercive pain necessary to persuade China to relinquish its South China Sea claims.<sup>25</sup>

The appeal of rollback is obvious, because the strategy—if successful—would restore U.S. credibility and remove a major threat to American interests in the Asia-Pacific. And there is little question that, if the United States were willing to pursue the most aggressive versions of rollback—military assault or blockade—it could achieve the desired strategic objective. Great gains do not come cheaply, however, and the risks of this strategy would be tremendous.

First, given the degree to which the Chinese Communist Party has staked its prestige and legitimacy on standing up to foreign powers in general and asserting expansive claims in the South China Sea in particular, it seems unlikely that anything short of military conflict actually would suffice to achieve the aims of this strategy. Retreating in the South China Sea would be a great humiliation for the Chinese leadership; one imagines that Beijing would be willing to accept a great deal of pain rather than submit to it. After all, Chinese leaders repeatedly have made clear that they view the South China Sea as both a part of China and a vital national interest, and as Fu Ying, chairwoman of the Foreign Affairs Committee of the National People's Congress of China, has warned, "The people won't tolerate if we lose territory yet again." <sup>26</sup> Washington therefore would have to be prepared to wage war to remove Beijing from its features in the South China Sea—and, most likely, to be willing to paint itself as the aggressor by firing the first shot in that conflict. The United States almost certainly would win such a conflict—particularly if it occurred in the next few years—but the military costs, potential for escalation, and reputational costs likely would be severe.

A second, related point is that the United States probably would find most regional states—which would fear being caught in the middle of a shoot-out between their primary trading partner and their primary security patron—strongly opposed to such a strategy. Few, if any, regional states—even other South China Sea claimants—would support rollback openly; it is not hard to imagine U.S. allies such as the Philippines moving further away from Washington and toward Beijing were the United States to take this approach.<sup>27</sup> Rather than upholding U.S. relationships in the Asia-Pacific, in other words, rollback might weaken them severely. Finally, even if rollback did not lead to a military conflict, China likely would respond by imposing costs of its own: ceasing cooperation on an array of other issues in the relationship—from North Korea to climate change—and perhaps increasing its coercive activities in the East China Sea, putting additional pressure on Taiwan, or using economic measures to punish U.S. businesses.

Even in the best-case scenario, then, rollback would lead to a severe disruption of the bilateral relationship and alienate many U.S. allies and partners; at worst, it could plunge Washington and Beijing into precisely the military conflict that American policy makers long have sought to avert. For these reasons, it is highly unlikely that rollback will be attempted; indeed, not even the most hawkish U.S. national security experts have advocated such a strategy openly.<sup>28</sup>

# Containment

Should the risks associated with rollback prove prohibitive, a second strategic option is containment. The goal of containment would be to stop China from using force or coercion to alter any element of the status quo in the South China Sea, and particularly to prevent it from building additional features or seizing features held by other nations. The basic logic of this approach is that, while rollback may be too dangerous, any further erosion of the situation in the South China Sea is unacceptable. Additional Chinese gains would undercut the credibility of American leadership and guarantees in the region and risk allowing Beijing to complete its dominance incrementally. Containment thus would permit Beijing to keep what it has, but it would draw the line firmly against further advances.

In practice, containment would mean issuing sharp, clear warnings against further Chinese expansion or coercion, coupled with policies meant to substantiate those warnings. Washington would station substantial military forces in and near the South China Sea to respond quickly if Beijing sought to seize features held by other nations; it also might consider landing U.S. forces on features controlled by American allies and partners to discourage aggressive Chinese moves.<sup>29</sup> To dissuade China from undertaking further land reclamation, the United States would threaten explicitly to sanction Chinese individuals or entities involved in such activities. Washington would maintain a robust regimen of FONOPs, preferably in concert with friends and allies from within the region and beyond, and it would refuse to recognize—and, if necessary, prevent China from enforcing—any declaration of straight baselines in the Spratly Islands to match previous illegitimate declarations in the Paracels, or any air defense identification zone (ADIZ) in the South China Sea not limited to accepted interpretations of international law. Finally, the U.S. government would continue upgrading U.S. military capabilities in the Asia-Pacific, negotiating additional military-access

and -basing arrangements, and enhancing the maritime self-defense capabilities of Southeast Asian partners and allies, all to ensure that America and its friends maintain the military superiority and escalation dominance necessary to make containment credible.

Containment is thus a hard-edged, confrontational policy, one that is heavily reliant on military tools. Yet a primary selling point of containment is that it is both less risky and less difficult to execute than rollback because it relies on deterrence—preventing China from seeking new gains—rather than compellence—

China's offensive is not simply a matter of who controls "a bunch of rocks on the other side of the world"; it is a challenge to a series of key U.S. interests in the South China Sea and the broader Asia-Pacific region.

requiring China to accept the humiliation of giving up gains it has pocketed already. 30 And while the United States so far has struggled even to halt China's advance on any consistent basis, containment has

worked in certain isolated cases that might serve as "proof of concept" for a larger strategy. In a little-noted incident in 2014, for instance, China stopped seeking to prevent resupply of Philippine marines stationed on Second Thomas Shoal after the United States signaled its commitment by placing a maritime surveillance plane overhead. In this episode, Vice Admiral Robert Thomas, commander of the U.S. Seventh Fleet, also made a clear statement of U.S. resolve by saying, "Without going into hypotheticals, the Seventh Fleet is going to support this alliance, period."31 Similarly, although the United States failed to prevent China from taking effective control of Scarborough Shoal in 2012, public reports indicate that, in 2016, China backed away from a planned effort to begin land reclamation there after U.S. officials issued explicit, high-level warnings that doing so might disrupt seriously the Sino-American bilateral relationship.<sup>32</sup>

In other words, China may be increasingly assertive, but only when it believes it can advance without encountering serious resistance. Beijing remains more risk averse when it comes to actions that could spark a military clash—or even produce a severe wrench in the relationship—with Washington. China has respected American redlines when those redlines are clearly drawn and seem likely to be enforced. Containment seeks to raise significantly the risks of further Chinese advances and thereby bring Beijing's offensive to a halt; it seeks to translate periodic successes into a more consistent policy of holding the line. And should China find itself stymied in the South China Sea over a long enough period, containment advocates suggest, Beijing eventually might moderate its behavior and conclude an equitable diplomatic settlement with its neighbors.

Nevertheless, containment also has significant limitations and liabilities. Diplomatic difficulties abound. Many U.S. allies and partners are likely to be wary of such a policy, in part for fear of antagonizing China, in part for fear that Washington might lose its nerve should Beijing precipitate a crisis. Moreover, a policy of helping Hanoi, Taipei, or Manila hold the features that it has occupied or constructed would cede the moral high ground that Washington has claimed by championing widely accepted international rules and norms. More seriously still, containment does not deal with the military capabilities and positions that China has created already, nor does it prevent Beijing from emplacing additional capabilities on features it already controls. And, of course, containment requires the United States to run a significantly heightened risk of severe tensions with China, to be willing to jolt badly a relationship in which it has many and varied equities, and to be willing to follow through on its deterrent threats—resulting, potentially, in a Sino-American war—should Beijing not back down. Critics of U.S. policy in the South China Sea long have asked whether Washington is willing to fight a war to stop Chinese salami slicing; containment, like rollback, ultimately requires answering that question in the affirmative.<sup>33</sup>

Finally, holding containment in place is likely to become more dangerous and expensive over time, as China's ongoing military buildup shifts the strategic balance in the region. One recent RAND Corporation report indicates that the "tipping point" in a conflict over the Spratly Islands might come as soon as 2030, and that China's risk tolerance only will increase as its military power does.<sup>34</sup> Absent major and continuing U.S. military investments, a containment strategy eventually could become untenable. Containment in the South China Sea thus is likely to resemble containment as practiced in many other contexts: a potentially useful policy, but one that is nonetheless difficult, costly, and potentially dangerous to execute, and would require enormous patience and persistence to succeed.

# Offset

If U.S. leaders are not willing to accept the risks inherent in more-aggressive strategies, a third option would be to focus on offsetting—and penalizing—Chinese gains rather than directly preventing them. Washington would respond to Chinese moves in the South China Sea by imposing costs—diplomatic, economic, and otherwise—on Beijing; it also would work creatively to strengthen the relative positions of the United States and its allies and partners.<sup>35</sup> As its name implies, this strategy essentially would accept some short-term competitive losses in the South China Sea in hopes of offsetting those losses through longer-term competitive gains.<sup>36</sup>

Logically, an offset strategy derives from a peculiar mix of tactical pessimism and strategic optimism. Advocates of an offset strategy believe that trying to halt China's advances altogether risks danger and disappointment, because China's inherent geographical advantages allow it to choose when and where to press. In addition, the South China Sea simply matters more to Beijing than it does to

Washington: while it may be an important interest for America, it is absolutely crucial for China. Fortunately, advocates of this strategy contend, fully halting China's advance is not strategically necessary to uphold the broader U.S. position in the region.<sup>37</sup>

Washington may not be able to stop Beijing from dredging up sand at some isolated reef, for instance, but it can use a range of diplomatic and economic tools to force China to bear significant costs for such actions. Moreover, it can work to ensure that Chinese advances are more than matched by upgrades to the U.S. regional military posture and the deepening of America's security relationships with China's neighbors. By doing so, the United States can make China pay for each artificial island constructed by ensuring that any tactical advance for Beijing results in a broader strategic loss. Over time, this approach may persuade Chinese leaders that the game in the South China Sea is not worth the candle; at the very least, it will minimize, if not cancel out, the strategic benefits that China reaps from its offensive. The struggle for the South China Sea—and for the Asia-Pacific more broadly—will be decided not by who controls a few rocks, proponents of this strategy argue, but by who has the stronger overall position and who better commands the loyalties of the key regional players. An offset strategy keeps this bigger, longer-term picture in focus, as it also reduces the risks of a near-term conflict.

In practice, an offset strategy would accept Chinese changes to the status quo, so long as those changes did not lead to conflict with the United States or its treaty allies. Yet Washington would respond to Chinese advances, such as further land reclamation, by slapping economic sanctions on firms involved in such activities, by suspending broader bilateral economic initiatives such as negotiation of a bilateral investment treaty, or by incrementally expanding the U.S. defense relationship with Taiwan or other regional parties. When Chinese advances created regional unease, the United States would exploit them aggressively by continuing to broaden defense relationships and opportunities for basing access with countries throughout Southeast Asia and beyond; it also would continue to encourage Southeast Asian countries to challenge Chinese policy through diplomatic and legal forums. Not least, America would respond to Chinese assertiveness by deploying more advanced military capabilities to the South China Sea and strategic points surrounding the area, by exercising and operating more frequently and more visibly in the region, and by taking concrete steps to strengthen its overall military posture in the Asia-Pacific. In essence, an offset strategy would entail demonstrating to Beijing, through a wide array of measures, that its assertiveness will leave it only more encircled and isolated in the end.

The evident allure of this strategy, of course, is that it offers a chance to win the region without precipitating a U.S.-China conflict in the process. This is precisely why the Obama administration pursued a variant of this approach from 2010 onward. Under Obama, the United States generally declined to provoke showdowns over particular Chinese advances (with the exceptions noted previously). But it also attempted to upgrade the U.S. alliance with the Philippines, pursued enhanced partnerships with Southeast Asian partners such as Vietnam, deployed additional military capabilities to the South China Sea and surrounding areas, and sought to inspire greater regional diplomatic unity in opposing Chinese coercion. The strategic logic was one of avoiding clashes in areas where

There is no guarantee that this hybrid strategy will work, of course; were there an obvious solution to China's challenge in the South China Sea, U.S. policy makers surely would have found it by now.

China had the upper hand, while simultaneously refocusing the competition on those areas where America's diverse regional relationships and greater overall strengths might give it the strategic edge.

Compelling as the strategy was in theory, however, the Obama years demonstrated that it also had a number of distinct weaknesses and challenges. First and most obviously, in the near term offset would do little or nothing to prevent China from consolidating existing gains or seeking new ones, with all the negative consequences—both material and psychological—that flow from that. Indeed, by not stymieing Chinese advances, the United States risks giving the impression—as it did under Obama—that it is walking back from its declared redlines because it is either unable or unwilling to stop Beijing's regional expansionism. That perception, in turn, may encourage regional states to acquiesce to rather than resist China's dominance of the South China Sea; it even may encourage Beijing to accelerate its drive for primacy.<sup>38</sup>

Second, if the hope is that cost imposition will affect Chinese decisions over time, then the costs imposed on Beijing must be quite significant—which once again raises the risk of significantly upsetting the relationship or triggering an undesired crisis.<sup>39</sup> This was precisely the problem that the Obama administration never could solve adequately. As former administration officials such as Ely Ratner have noted, the White House was determined to preserve stability in the overall relationship, and therefore never was willing to impose the higher costs necessary to make this approach work.<sup>40</sup>

Third, offsetting Chinese gains by improving the U.S. position and forging a stronger balancing coalition is easier said than done. Washington spent considerable time and energy upgrading its military and diplomatic relationship with Manila during the Obama years—only to see that progress jeopardized by the ascent of Rodrigo Duterte. American diplomats continually prodded ASEAN to take a firmer position on the South China Sea, but Beijing effectively derailed

these efforts by using its own economic and diplomatic leverage to keep regional states divided. 41 As a result of these challenges—and U.S. failure to ratify the Trans-Pacific Partnership (TPP), which would have linked the United States more closely to Southeast Asia—China had made short-term gains yet avoided most long-term costs when the Obama team left office.<sup>42</sup>

Finally, and related to this point, an offset strategy requires that U.S. officials continually walk a tightrope: acting aggressively enough to convince regional actors that Washington is serious about preventing Beijing from dominating the region, but not so aggressively as to unnerve allies and partners who often try to avoid explicit alignment. As Singaporean diplomat Bilahari Kausikan notes, "[t]o the countries of Southeast Asia, the American porridge is always going to be too hot or too cold; countries will always fear the United States entangling them in its quarrels with rivals or being left to deal with other major powers without adequate support."43 An offset strategy may carry advantages, then, but it also remains fraught with difficulties.

#### Accommodation

This brings us to a fourth and final strategy available to the United States: accommodation. In contrast to the first three strategies, the goal of accommodation is not to stop Beijing's destabilizing behavior ultimately, or even to maintain a dominant position in the South China Sea and the broader Asia-Pacific region. The goal, rather, is primarily to avoid conflict with China over the South China Sea, with a subsidiary objective of conserving the resources that would be needed to compete more effectively.

To that end, the United States unilaterally would make concessions to wind down tensions in the South China Sea. It would avoid military, diplomatic, or legal challenges to Chinese activities, essentially acceding—whether tacitly or explicitly—to Beijing's island building, militarization, and coercion of its neighbors. FONOPs would be phased out; military exercises and presence would be reduced, if not terminated. The United States would maintain its alliances and security partnerships in the region, but it would make clear that its alliance guarantees do not cover disputed features such as Scarborough Shoal and Second Thomas Shoal, and it would urge its allies and partners to come to some diplomatic accommodation with Beijing. Just as the British acceded to U.S. primacy in the Western Hemisphere in the late nineteenth and early twentieth centuries, the United States would accede to Chinese primacy in the South China Sea in the twenty-first century, and encourage others to do likewise.

The core premise of this approach is that resisting Chinese dominance of the South China Sea is a fool's errand. China already controls much of the area, this argument runs, and there is little that Washington can do short of threatening —and perhaps waging—war to halt Beijing's progress. Rather than making

Scarborough Shoal or Second Thomas Shoal the West Berlin of the twenty-first century, then, Washington simply should recognize that Beijing's rise makes it inevitable that the South China Sea eventually will become a Chinese lake.

Variants of this strategy have been advocated periodically by observers within the Asia-Pacific region—including Australian strategic thinker Hugh White—and the logic of the approach is not entirely without merit. <sup>44</sup> Certainly, competing with China in the South China Sea will be costly and potentially dangerous over time; accommodation would avoid those costs and risks, at least in the short term. It is undoubtedly true that geography and an asymmetry of interest favor China in the South China Sea, just as geography and an asymmetry of interest favored America vis-à-vis Great Britain and other extraregional powers in the Caribbean

[F] or the United States to accomplish even the limited aims of this approach, it must be willing to accept greater risks, incur higher costs, and impose more-serious penalties on China than it has been willing to do to date.

in the late nineteenth century; accommodation thus would extricate America from a difficult struggle over distant waters and limit the danger of war with China. Moreover, given that the South China

Sea is of such great strategic and economic importance to China, it is not beyond the realm of possibility that Washington—if it acted skillfully—could gain some marginal Chinese concession on North Korea, climate change, or one of the myriad other important issues in the bilateral relationship in exchange for giving Beijing a free hand in the area.<sup>45</sup>

It seems unlikely, however, that even a complete U.S. capitulation in the South China Sea would lead Beijing to change its policy fundamentally on North Korea, Taiwan, or any other key issue, because Chinese leaders surely would assess that the weakness of the U.S. position on the South China Sea was compelling the United States to seek such a "grand bargain." And as tempting as accommodation might be for a country with no shortage of challenges around the globe, the fact is that the benefits of this approach would be more than offset by powerful disadvantages.

A strategy of accommodation would undercut U.S. alliances and partnerships in Southeast Asia and beyond, by demonstrating that the United States is no longer willing to contest Chinese power in this area. Washington thereby would risk forfeiting the leadership role that the United States long has played in the region, while perhaps encouraging countries from Vietnam to the Philippines to align with a rising Beijing. Indeed, if the United States cannot summon the wherewithal to uphold the rules-based order, then American leaders should not expect smaller states to do so on their own. Moreover, although a policy of accommodation would reduce the risk of confrontation in the short term,

it might increase it in the long term. The lesson that Beijing surely would take away from such an approach is that American redlines are not actually so red and the country's "ironclad" alliance commitments are not actually so ironclad; that perception, in turn, could encourage greater Chinese risk taking that ultimately might transgress a real American redline and bring the two countries to blows.

Finally, and perhaps most significantly, this approach would guarantee Chinese hegemony over the South China Sea, an area that American policy makers long have deemed to be of vital economic and geopolitical importance to the United States. It thereby would complicate dramatically any U.S. effort to defend Taiwan, the Philippines, and other partners and allies in the event of Chinese aggression or coercion. U.S. accommodation also would put China well on the path to becoming a regional hegemon of the sort America always has felt compelled to resist. Beijing indeed may have a greater interest in the South China Sea than Washington does, but it hardly follows that the United States has no interest there worth defending. Accommodation, in other words, would have devastating effects for the U.S. position in the Asia-Pacific—with no guarantee that it actually would reduce the danger of an eventual conflict with China.

Fortunately, selecting this undesirable option is unnecessary. China indeed is pressing assertively for primacy in the South China Sea—but the game is not yet over. As noted previously, there have been instances (at Second Thomas Shoal in 2014 and Scarborough Shoal in 2016) when Beijing backed down in the face of strong U.S. warnings and pressure. Yes, the United States has struggled to stem Chinese advances in the South China Sea on a consistent basis, but where it has

## SUMMARY OF SOUTH CHINA SEA STRATEGIC OPTIONS

Rollback	<ul> <li>Physically attack Chinese forces in the South China Sea</li> <li>Blockade Chinese forces on South China Sea features until they withdraw</li> <li>Apply economic sanctions to force Chinese military to withdraw</li> <li>Undermine "core" Chinese interests, such as Taiwan, unless China withdraws</li> </ul>			
Containment	<ul> <li>Land U.S. forces on features controlled by China's neighbors</li> <li>Provide military support to other South China Sea claimants</li> <li>Maintain a large regional military presence, especially near Scarborough Shoal</li> <li>Recognize China's neighbors as rightful claimants of disputed features</li> </ul>			
Offset	Enhance U.S. political-military engagement in Southeast Asia     Impose economic/diplomatic penalties in response to Chinese advances     Offset Chinese gains with greater U.S. military deployments     Encourage diplomatic and legal challenges to Chinese activities			
Accommodation	<ul> <li>Publicly accept Chinese reclamation, construction, and militarization</li> <li>Cease freedom-of-navigation operations in the South China Sea</li> <li>Communicate that Washington will not intervene in regional disputes</li> <li>Clarify that U.S. commitment to the Philippines excludes the South China Sea</li> </ul>			

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drawn redlines clearly and appeared ready to enforce them vigorously, China has not brought the matter to a climax. Were it simply impossible to resist or meaningfully offset the Chinese offensive, then accommodation might make strategic sense. But it is not impossible to do so, and accommodation thus would be the strategic equivalent of committing suicide for fear of death.

# POLICY IMPLICATIONS

So where does this analysis leave the United States? Neither of the extreme options—rollback or accommodation—represents a desirable strategy or an approach that the Trump administration is likely to adopt. Rollback has rhetorical appeal, but it would require Washington to accept extremely high levels of cost and risk, and it likely would endanger many of the objectives it is meant to protect. Indeed, this strategy would require Washington to accept far more risk than U.S. allies and partners themselves have accepted, a dynamic that is quite incongruous considering President Trump's emphasis on the importance of allies' contributions to their own defense. Conversely, an accommodation strategy effectively would abandon most of Southeast Asia to China. This would constitute a strategic disaster for the United States under any administration, but for an administration that has proclaimed itself determined to adopt a "strong" China policy, an approach that resembles appeasement is likely to be particularly unattractive. 46

This leaves two strategic options: containing or offsetting Chinese actions in the South China Sea. Containment has worked in isolated cases, and it holds some promise of altering Chinese behavior through deterrence rather than compellence. Yet containment is still a costly and potentially dangerous strategy, one that an opportunistic adversary presumably will find numerous opportunities to test in the coming years. An offset strategy, for its part, would have the benefit of avoiding near-term military confrontations, while focusing U.S. leaders on the long-term objective of imposing costs on and enhancing regional balancing against China. Unfortunately, an offset strategy is difficult to execute in its own right, and, as the experience of the Obama era shows, it risks permitting further Chinese changes to the status quo and thereby undermining U.S. credibility with friends and adversaries alike. Containment and offset are certainly superior to the extreme options, but neither one is an ideal strategy in and of itself.

Containment and offset are not mutually exclusive, however, so the best approach for U.S. policy makers would be to combine the most compelling aspects of these two strategies, while seeking to avoid some of their associated liabilities. Specifically, the United States should contain the most destabilizing Chinese activities while offsetting and penalizing less threatening behavior.

The containment elements of a new strategy would demonstrate that the United States is willing to accept short-term risk—including military risk—to prevent

China from coercing regional states and consolidating control of additional features in the South China Sea. The United States has shown episodically that when it draws redlines clearly and credibly threatens to enforce them it can deter Chinese efforts to take features from other claimants (as with Second Thomas Shoal in 2014) and to build on contested features (as with Scarborough Shoal in 2016). If U.S. leaders are willing to issue clear deterrent threats, and to back up those threats with potential military, economic, and diplomatic sanctions, they may be able to mitigate the worst aspects of Chinese aggression by preventing Beijing from seizing or reclaiming additional disputed features.

The offsetting elements of the strategy, meanwhile, would seek to ensure that China suffers long-term losses whenever it obtains any short-term gains coercively. Unfortunately, no U.S. containment policy is likely to prevent China from using its maritime militia to harass other countries' vessels, violating the 2016 arbitral tribunal decision, further militarizing its existing artificial islands in the Spratlys, or declaring an ADIZ around the South China Sea.  $^{47}$  The United States is just not likely to go to war, or even threaten to do so, in response to such runof-the-mill coercion, and China knows as much. U.S. leaders therefore have little option but to impose economic and diplomatic penalties on Beijing in response to such actions, while offsetting such gains by enhancing the U.S. military posture in the region and working to build regional support for deeper American engagement and tougher policies toward China.

There is no guarantee that this hybrid strategy will work, of course; were there an obvious solution to China's challenge in the South China Sea, U.S. policy makers surely would have found it by now. A contain/offset hybrid still will entail many of the liabilities that inhere in the separate strategies: it will not reduce China's existing military-geopolitical footprint, for instance, nor will it preclude all forms of Chinese assertiveness and coercion in the region. This strategy, moreover, will be difficult to execute—for all the reasons spelled out previously—and will become ever harder to implement over time as China's power grows. Indeed, for the United States to accomplish even the limited aims of this approach, it must be willing to accept greater risks, incur higher costs, and impose moreserious penalties on China than it has been willing to do to date. A contain/offset strategy will not allow U.S. policy makers to avoid dangerous crises and daunting dilemmas—even if it does represent the best approach for navigating them deftly enough to preserve America's key interests in the South China Sea.

America has limped along without a clear or coherent approach in the South China Sea for several years. Now is the time to get serious about strategy—before it is too late.

## NOTES

- 1. Important recent contributions to this debate include Ely Ratner, "Course Correction: How to Stop China's Maritime Advance," Foreign Affairs (July/August 2017), available at www .foreignaffairs.com/, and Ross Babbage, Countering China's Adventurism in the South China Sea: Strategy Options for the Trump Administration (Washington, DC: Center for Strategic and Budgetary Assessments, 2016).
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# ANTIACCESS WARFARE AS STRATEGY

## From Campaign Analyses to Assessment of Extrinsic Events

Sam J. Tangredi

hinking about the concept of antiaccess warfare may be likened to thinking about the Renaissance. Leonardo da Vinci, Niccolò Machiavelli, and Dante Alighieri did not know that they were part of a renaissance; they simply experimented, strategized, and wrote in a fashion that seemed logical to them and appropriate to their times. It was the nineteenth-century European historian Jules Michelet who "discovered" that "the Renaissance" had occurred.

Likewise, Themistocles, Elizabeth I, Isoroku Yamamoto, and Adolf Hitler (after early 1943) did not know that they were conducting antiaccess warfare. They simply applied a strategy that was logical for a situation in which a strategically superior power was attempting to penetrate—militarily, politically, or both—a region they controlled. Originating circa 1991, the term *antiaccess warfare* is simply the best appellation that has been developed to describe their strategies

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for comparative purposes. As used throughout this article, the term *strategy* incorporates political and economic objectives and activities, not military operations alone.

From this perspective, the concept of antiaccess warfare precedes and transcends the development of the air-sea battle concept, the *Joint Operational Access Concept (JOAC)*, the *Joint Concept for Access and Maneuver in the Global Commons (JAM-GC)*, and other recent efforts to understand the logic of opponents' military operations that the United States would face if major war were to occur under current conditions. This logic derives from

the fact that presently the United States is a strategically superior global power whose homeland lies outside the regions of potential crisis and conflict. As a global power, it has allies, commercial ties, and deep interests in areas that are thousands of miles from the continental United States, where most of its military power is based. While the United States maintains a forward military presence in many world regions, whether at sea or operating from bases in partner nations, these deployed forces are necessarily limited, either by the physical hulls or by diplomatic agreements. Forward-presence forces are intended to act as deterrents to major war and as on-scene responders to more-limited crises—to prevent the latter from becoming the former. If we are particularly alert, quick, or lucky, such forces may prove sufficient by themselves to deal even with significant crises. But they do not necessarily represent the full power required to prevail in a major regional conflict. Hence, in most cases we would need to move decisive forces from outside to inside the conflict region. Unlike most other nations, the United States actually possesses the military logistics capabilities and control of the global commons to do so.1

Antiaccess warfare is part of the strategy—used throughout history—of opposing such force movements (or the capacity, or the very decision, to move), along with an effort to empty the region of forward-presence forces and reduce the opponent's overall regional influence. It is important for U.S. national security professionals to analyze and understand antiaccess warfare as an element of peacetime as well as wartime strategy, if we are to counter it when required.

If the United States is to develop and maintain the capacity to defeat—and thereby have the ability to deter—sophisticated antiaccess strategies that threaten to reduce the U.S. presence in, influence over, or access to contested regions, a coordinated, articulated, and persistent intragovernmental approach is required, not just Department of Defense (DoD)—only planning. Logical first steps toward creating such an interagency approach involve acknowledging and analyzing the problem, examining its consequences, identifying mutually supportive actions, and outlining processes by which an approach can be coordinated. This article identifies the elements of antiaccess warfare strategies, outlines several historical examples of success or failure, briefly suggests some of the means of countering such strategies today, and describes ways to coordinate these means and evaluate the assumptions and risks entailed.

### TOWARD STRATEGIC-LEVEL ANALYSIS

To understand how to neutralize antiaccess strategies, we must analyze the problem at the strategic level. In countering an antiaccess *strategy*, as opposed to simply preparing or tailoring a military force package to defeat an antiaccess military *campaign*, we must recognize that a viable antiaccess strategy—one

designed to reduce U.S. influence and operational capabilities in a region of potential conflict—includes political, diplomatic, economic, legal, social, and media actions, not just a military posture. This way of thinking goes beyond the military campaign analysis often used to assess antiaccess warfare scenarios.<sup>3</sup> Antiaccess strategies involve all the phases of conflict, including preconflict "peace," referred to in planning documents as Phase 0. Some of these activities are captured by current buzzwords, such as lawfare, soft power, cyber war, and gray-zone conflicts. However, a comprehensive, multifaceted U.S. government strategy to actually counter deliberate antiaccess efforts does not exist, nor has a comprehensive plan appeared in the literature published by public research centers (think tanks) or academic institutes that influence government policies.<sup>4</sup>

In other words, we know that potential opponents rely on the concept of antiaccess (no matter the term they use) as their primary approach to defeating, or at least diminishing, U.S. regional influence backed by American military power. But most of our government organizations either do not recognize the activities involved or are not interested in analyzing and responding to them. Similarly, most academic analysts have not examined these mutually supportive activities as a broader unified strategy, rather than as individual issues or the elements of active military campaigns.

Largely this is the result of antiaccess being perceived as but a military term that applies solely within the province of DoD. The unfortunate, tactically oriented acronym A2/AD, which stands for antiaccess/area-denial, cements this perception.<sup>5</sup> Indeed, the most authoritative official document discussing antiaccess warfare, the Joint Staff J7-authored JOAC, briefly notes the comprehensiveness of antiaccess strategies, but limits itself to developing a "warfighting concept" to deal with such strategies militarily. It does not reject the pertinence of other, nonmilitary activities, but simply does not regard them as falling within the purview of the joint force. However, as noted previously, the problem is that few outside DoD see these activities as falling within their purview either. The JOAC notes that maintaining "operational access" to regions of interest is the U.S. military's contribution toward the "assured access" of the United States to the global commons that is the prerequisite for economic access to these regions themselves. However, there is no evidence that the wider U.S. government perceives the need for a strategy to ensure access, and access issues are mentioned rarely, beyond cursory observations concerning the Navy's role in maintaining "freedom of the seas."

One might argue that preparing to defeat antiaccess campaigns militarily is exactly the narrow focus on which DoD should concentrate. However, the problem is that DoD does not control the totality of resources necessary to defeat an antiaccess strategy, and thus is at a severe disadvantage in planning or prosecuting a counterantiaccess campaign. Such a campaign needs to include a wide range of nonmilitary activities.

Moreover, with the end of the Cold War against Soviet expansionism, there actually is less coordination of these activities within the U.S. government. During the Cold War there was often a tension between defense objectives and trade policies (wheat sales to the Soviets provide one example), requiring higher-level resolution.8 Today there is less tension, since there is little perception that such activities are in any way related, except for occasional, often ineffective, economic sanctions or embargoes of selected technologies or strategic materials imposed on individual states.9 Admittedly, the need to counter terrorism following the traumatic events of 9/11 did prompt mutual support among military operations, intelligence, homeland security, and law enforcement, but in a relatively narrow band of activities (e.g., physical security) against a relatively unsophisticated threat. Coordination of other transagency activities during the unending conflicts within Iraq (and Syria) cannot be rated as stellar. 10

## CHARACTERISTICS OF ANTIACCESS WARFARE

To discuss a comprehensive antiaccess strategy, it is important to examine the fundamental elements of antiaccess warfare itself. They are as follows:

- 1. The perception of the strategic superiority of an opponent
- 2. The primacy of geography, as the element that most influences time and facilitates the combat attrition of the opponent's forces
- 3. The general predominance of the maritime domain as conflict space
- 4. The criticality of information and intelligence, and concomitantly the effects of strategic and operational deception
- 5. The determinative impact of extrinsic, sometimes apparently unrelated, events in other regions or globally

The first element motivates a nation (or an armed group) to adopt antiaccess as a primary defense strategy. The specification of defense strategy does not mean that the nation or group has no offensive objectives, such as the seizure of another's territory or the intimidation of neighbors; rather, it indicates that the primary aspect of the potential conflict is the involvement of an opponent of greater military, political, diplomatic, or economic power, considered on a global scale.

This characterized the grand strategy of imperial Japan in the Second World War. Competent Japanese leaders, such as Admiral Yamamoto, knew that the United States was a strategically superior power by almost any measure. (Having spent time in the United States, Yamamoto knew that firsthand.) However, Japan's leaders were committed to making conquests in the Asia-Pacific. This required driving U.S. military forces out of the region and ending U.S. political, diplomatic, economic, and social influence in the western Pacific. To protect their gains, they needed to create an antiaccess barrier (fortified island chains and a powerful navy) to ensure that the strategically superior but now regionally ousted United States could not reenter the contested region. The United States thus needed to penetrate that barrier.

All military planners recognize geography to be a critical operational factor and seek to "manipulate the physical environment, exploit its strengths, evade its weaknesses . . . and contrive always to make nature work for them." <sup>11</sup> If an antiaccess defender has greater accessibility to nearby regional geographic features, it can facilitate attrition of its opponent through delay and constraint. Exploiting geography is the primary physical factor underlying an antiaccess strategy. For example, without a barrier of islands (to complement the advantage of the vast distances the United States faced) in the central and western Pacific, imperial Japan would have found it difficult to adopt an antiaccess posture (i.e., the positioning of its forces) against a U.S. response to its conquests. Similarly, the islands and straits that isolate the South China Sea and East China Sea from the vast expanse (and maneuver space) of the Pacific allow China today to adopt an antiaccess strategy against potential military responses and to counter U.S. political influence in the region. A Chinese antiaccess posture would be much less effective without the vast distances of the Pacific, the relatively shorter distances from China to its neighbors (the probable targets of any military action and the definite targets of its expansion of influence), and the maritime geography that would channel the U.S. fleet if it sought to enter the so-called first island chain. The very use of the term first island chain by military planners implicitly acknowledges the geographic underpinning of China's antiaccess strategy.

Given that wide oceans separate the United States from the areas of potential regional conflict, it is an incontrovertible fact that the maritime domain (which includes the air and space above it) would be the predominant conflict space in any contingency involving the United States opposing a major enemy employing an antiaccess strategy. Quibbles concerning that verity are largely parochial.

The criticality of information and intelligence in the cyber age is acknowledged by everyone. However, when discussing them in terms of antiaccess warfare, the focus is primarily on operational and tactical deception; yet what has succeeded best in antiaccess campaigns has been strategic deception. Whereas operational and tactical deception is directed at an opponent's military operations, strategic deception is directed at decision making on the national command authority level, and is linked to the manipulation of extrinsic events, defined as events that occur outside the contested region or do not involve military force, yet have a significant impact on the strategically superior power's decision making. According to an influential source, strategic deceptions "involve large numbers of individuals and organizations as perpetrators and victims of deception, including the national command authorities on both sides of the deception interaction; second, ... they are relatively long-term deceptions ... and third, ... their stakes are very high, in that they can affect the outcomes of wars." <sup>12</sup>

In contrast to all the above, the determinative impact of extrinsic, sometimes unrelated events on the efforts and attention of the strategically superior power is generally the element *least acknowledged* by those who conduct campaign- or tactical-level analyses of antiaccess warfare, yet it is the *most important*. The current "win-hold" construct—building an American joint force that can defeat an opponent in one region while holding off another in a different region until forces can be "swung"—does appear to acknowledge that simultaneous conflicts can occur. However, what is grasped only rarely is that events that are not conflicts, or have not yet become conflicts—events that may occur in other regions, are merely prevalent on a global basis, or are confined to nonmilitary dimensions—nonetheless can have a profound impact on any "win."

Research indicates that most nations (or armed groups) adopting an antiaccess approach never actually defeat their strategically superior opponents in combat.<sup>13</sup> What has occurred historically is that the strategically superior power just quits fighting, because the costs appear too high when an event or other concerns of even greater interest occur elsewhere.

For example, the ancient Greeks, led by Themistocles, were able to cut the sea lines of communication that had allowed Xerxes to feed his vast Persian force in Greece during the conflict of 480–479 BCE. However, what actually caused Xerxes to cease his efforts at conquest was his perception that revolts were brewing in his empire, so his repressive hand was needed elsewhere. Of course, the Greeks played a role in fanning those revolts. <sup>14</sup>

Similar actions have been a hallmark of antiaccess strategies throughout history. In preventing and defeating the Spanish armadas (note the plural), England's Queen Elizabeth I used multiple methods to incite extrinsic events. She financed the prolonged war of independence that the Dutch United Provinces fought against Spain. She let loose the English pirates of the Caribbean (in her eyes, unofficial privateers or high-risk "adventurers") against Spanish colonies. She employed spies and agents, and even feigned contemplation of marriage to forestall a Franco-Spanish alliance against England. All this was done in a time of ostensible peace. Over a period of more than two decades, such activities effectively bankrupted Spain, ensuring that Philip II never could concentrate enough force to plow through the Royal Navy and land on English shores, an event that would have pitted battle-hardened Spanish troops against local English levies. By

the time the first Spanish armada reached the English Channel, Spain's strategic power already had been reduced.

In the example of imperial Japan, its improbable 1940 alliance with Nazi Germany (and tacit nonaggression agreement with the Soviet Union) can be understood only as an effort to help ensure that a war in Europe would draw in the United States. Generating this extrinsic event was intended to divert U.S. attention and forces away from the western Pacific.

With this in mind, a strategist might be prompted to ask: In the event of a pending conflict, what would China do today, or in the future? Is a potential war in the South China Sea over reefs claimed by Vietnam or the Philippines of moreprofound interest to U.S. decision makers than Russian pressure on the Baltic nations, all of which are members of NATO? These questions—often stated but only lightly examined—must be analyzed in detail, because they, not a weapons count, will determine the outcome of an antiaccess conflict. Again, historical analysis indicates that antiaccess forces rarely have defeated the strategically superior power on the battlefield (witness the Korean and Vietnam Wars). In many cases, the dominant actor seemed on course for a military victory; it was other considerations that caused that superior power to change course. In the case of the Greek-Persian conflict, it should be recalled that Athens—one of Xerxes's major targets—already had been abandoned and burned to the ground before the Athenian Themistocles was able to orchestrate the battle of Salamis. 16

The sorts of questions posed above, generated by the fact that extrinsic events historically have played the greatest role in successful antiaccess strategies, should prompt analysts both in government and in think tanks to make a more detailed examination of the phenomenon on the strategic level. Mostly, however, we just continue to argue about A2/AD.

## THE UNFORTUNATE ACRONYM

The discourse on antiaccess warfare has been dominated by the acronym A2/ AD, standing for antiaccess/area-denial. Credit for the term largely belongs to the highly influential defense issues think tank the Center for Strategic and Budgetary Assessments (CSBA). However, since its origination the term A2/AD has been used more often as an adjective to describe the types of weapons systems and networks expected to be used in an antiaccess campaign, rather than to refer to the underlying strategy.  $^{17}$  The tortuous origin of the A2/AD acronym—which has been in use for over fifteen years—has been covered elsewhere, and that discussion will not be repeated here.<sup>18</sup> What should be noted is that use of the acronym, and the full term antiaccess/area-denial, has driven much of the discussion of antiaccess away from strategy and almost exclusively toward tactics and

force structures. The construct seems perfectly tailored to campaign analysis. This is not to say that discussion of tactics and force structures is not important, only that discussion of how to deter or defeat the underlying strategy is equally important, if not more so.

There has been some pushback, albeit rare, on the use of the A2/AD acronym. In October 2016, Chief of Naval Operations (CNO) Admiral John Richardson, USN, authored an article on the National Interest's website that sought to "deconstruct," and thereby discourage, use of the A2/AD term. In the CNO's view, "A2AD is a term bandied about freely, with no precise definition, that sends a variety of vague or conflicting signals, depending on the context in which it is either transmitted or received." More importantly, from his perspective, the "area denial" half of A2/AD symbolizes a "mindset" in which the U.S. Navy automatically would be forced to operate outside the "red arcs" that mark the theoretical range of the kinetic weapons of the potential opponent, thereby discounting the Navy's ability to operate within that range—particularly using its superior undersea warfare forces—from the outset of any conflict. As he puts it, "Often, I get into A2AD discussions accompanied by maps with red arcs extending off the coastlines of countries like China or Iran. The images imply that any military force that enters the red area faces certain defeat—it's a 'no-go' zone! But the reality is much more complex. . . . Those arcs represent danger, to be sure . . . but the threats are not insurmountable." He concludes, "If we fixate on A2AD, we are not looking far enough forward." 19

In his article, the CNO does not go on to capture the complexity of antiaccess strategies from the broader perspective, as that was not his intent. But his point about not "looking far enough forward" also can be applied to critiquing the lack of a broad approach to the broader perspective. The combination term A2/AD prompts a focus on weapons system performance in operational situations (e.g., Chinese DF-21 missiles vs. USN aircraft carriers), making it easier for analysts to neglect nonmilitary aspects and the role of deterrence. Indeed, the area-denial portion of the A2/AD construct refers to what could be considered standard tactics in force-on-force combat, and therefore contributes little to the broader perspective.

## AN EXAMPLE OF THE BROADER VIEW

To apply a broader strategic perspective to an apparent antiaccess disposition, let us consider the South China Sea scenario that many defense analysts wargame to assess the outlines of a potential conflict between the United States, particularly the U.S. Navy and Air Force, and China, particularly the People's Liberation Army (PLA) Navy (PLAN), the PLA Air Force, and the PLA Rocket Force (the latter controls both conventional warhead—and nuclear-armed ballistic missiles). The chosen battleground is the vicinity of the Spratly islets that China has solidified and fortified.20

The South China Sea situation has been analyzed in extensive detail in classified and unclassified reports and war games, and academic studies abound, so only a sketch will be included here. It would be most logical for the scenario to incorporate Chinese adoption of an antiaccess strategy. By all open-source measures, the U.S. Navy appears superior to the PLAN. Combined with U.S. Air Force assets, the U.S. Navy potentially could establish sea control in the South China Sea if it faced the PLAN alone. (It is China's potential use of land-based Rocket Force missiles that makes an antiaccess approach viable.) The current capabilities of USN attack submarines would make it difficult for major PLAN vessels to sortie without considerable risk. China is working steadily to improve PLAN capabilities, particularly in naval aviation (aircraft carrier based) and antisubmarine warfare; but, as a point of comparison, the U.S. Navy can deploy in force and threaten Guangzhou, whereas the PLAN cannot deploy out of area and threaten Pearl Harbor. Clearly, the United States is strategically superior in terms of conventional force on a global basis. (Since this is a maritime scenario, a contest between U.S. land forces and the PLA is presumed not to occur.)

As would any antiaccess force facing an out-of-area, strategically superior power, China would attempt to take advantage of the geographic conditions to employ asymmetric means to prevent the American fleet from entering the South China Sea. Most planners agree that the primary asymmetric means would be the antiship ballistic missiles (ASBMs) (e.g., DF-21Ds) or land-attack intermediaterange ballistic missiles (IRBMs) (e.g., DF-26s) controlled by the PLA Rocket Force. These are definitely asymmetric capabilities, since the U.S. joint force does not possess such weapons (primarily because of the U.S.-Soviet Intermediate-Range Nuclear Forces [INF] Treaty of 1988, which eliminated all land-based U.S. IRBMs).<sup>21</sup> In the event of conflict, U.S. analysts expect China to use ASBMs and IRBMs in addition to ship- and land-based cruise missiles against American ships and allied naval ports, along with cyber- and other electronic-warfare attacks.

But in the broader perspective, would China really have to rely on military means to achieve the goal of neutralizing a U.S. response? Antiaccess strategies include nonmilitary means, along with every other possible leverage that the antiaccess nation (or armed group) possesses, to make entering the region very costly to the out-of-area, strategically superior power. An important factor not usually discussed is that the DF-21 (and probably the DF-26) was designed to carry a nuclear warhead, and it is difficult to determine which missile is conventionally armed and which is nuclear armed. An early means of achieving an asymmetric effect could consist of political-military-diplomatic signaling and be informational: China might declare that it will not rule out using tactical nuclear weapons to defend its sovereignty claims over the Spratlys and the South China Sea. Since the U.S. homeland would not be threatened, such use logically would not trigger an intercontinental nuclear response. Perhaps such a statement would constitute strategic deception—the Chinese Politburo might be very reluctant to spark (or reenergize) what otherwise inevitably would become a nuclear arms race in East Asia.<sup>22</sup> However, the threat is credible because the PLA has built the means (antiaccess systems) to carry it out. The PLAN fleet would not even have to sortie. In response, U.S. decision makers would face the difficult choice among threatening a nuclear response—which could escalate into an intercontinental nuclear war; avoiding any confrontation of the Chinese claims; issuing an ambiguous "all military options are on the table" statement; or simply ignoring the threat.

The United States has many global interests besides those in the South China Sea. Some would argue that it has no vital interests riding on who controls that area. Because of the INF Treaty, the United States has no IRBMs with which to threaten an analogous response and thereby deter the PLA. Would the U.S. president hazard a tactical nuclear attack on U.S. and allied forces over the Spratlys? Would DoD feel confident that it could determine which DF-21 is nuclear armed and which is not, such that it could determine the validity of the threat? Would it feel confident that it could blind the PLA strike-reconnaissance network sufficiently to make the threat ineffective? How would U.S. allies and partners react to the potential for tactical nuclear use in East Asia?

Going a step further, consider the integration of the Chinese economy into the West and Western manufacturing supply chains. What if China declares that it will end the export of rare earth elements (minerals) if its sovereignty claims are challenged in the South China Sea?<sup>23</sup> This would increase manufacturing costs in the near term, and eventually would affect high-tech industries worldwide. For that matter, what if China threatened to withdraw its global investments? A "coalition of the willing"—those countries that would be willing to challenge Chinese sovereignty claims in the Spratlys—might prove to be pretty thin.

In effect, such actions would generate extrinsic events in the global economy that would increase the cost of a U.S. movement or a "return to the region." Similar Chinese threats against Japanese or Korean sovereignty likely would have no effects whatsoever on the current strong U.S. commitments to defend Japan and Korea—except possibly strengthening them. But our nontreaty partnerships with other countries involve no formal U.S. commitments.

Using nonkinetic means, the antiaccess force potentially can check the strategically superior power. That is what antiaccess strategies are all about.

### GENERATING CONSIDERATION OF EXTRINSIC EVENTS

The point of examining the South China Sea scenario from a broader perspective is not to give Chinese military planners new ideas; undoubtedly they are not new to them. The point is to identify considerations that the U.S. government must examine as a whole. For example, a Chinese tactical nuclear threat might be neutralized by negotiating an Asian INF arms control treaty. Conversely, an analogous deterrent effect might be achieved if the United States reinterpreted the existing INF Treaty as allowing the deployment of IRBMs in the Pacific region. That is not to suggest that doing either of these things is possible, or even wise policy. Rather, it is to suggest that these are actions that the U.S. Department of State (DOS) should be examining if the U.S. government—not just DoD—were to recognize antiaccess warfare as necessitating a whole-of-government strategy (to employ a clichéd phrase), not as just a military operational problem. There are ideas with which DOS needs to grapple if it is to be part of the effort to counter or deter the Chinese Communist Party (CCP) antiaccess calculus. (The PLA is pledged to the Party, not the Chinese state; the matter of the CCP's survival also can have an impact on extrinsic events.)

The rest of the U.S. government needs to recognize the importance of extrinsic events (or the threat thereof). In the scenario of a temporary Chinese stranglehold on rare earth elements—which would be extrinsic to the issue of South China Sea sovereignty—it would fall to the Department of Commerce to determine whether there is indeed a dependency, and therefore whether the U.S. government should maintain a stockpile of such strategic materials to protect U.S. industries in the event of a cutoff executed as an element of a Chinese antiaccess strategy. Maintaining a stockpile is a deterrent to the threat or execution of such an embargo to further Chinese objectives in East Asia. However, one profitably might ask whether any planner in the Department of Commerce ever has heard the term antiaccess.

One hopes that the Department of the Treasury is scrutinizing closely the likely effects of a Chinese disinvestment from global markets (particularly the securities market in the United States). But the South China Sea scenario is probably not a concern within the Treasury Department, so Treasury likely is not considering such disinvestment as part of an antiaccess strategy that the United States must prepare to counter. Have the department's planners determined whether, from a global perspective, the U.S. government could declare treasury bills held by the CCP or Chinese citizens to be null and void—without completely unraveling the rest of the bond market? The threat of these actions might provide more deterrence against the PLAN than a military theater posture.<sup>24</sup> Would other investors lose faith in the security of U.S. treasury bonds, even if these extraordinary actions were necessitated within a context of armed conflict? What would happen to global markets if the U.S. Navy were to interdict the transshipment of oil from the Persian Gulf to China? The operational aspects of such a presidential decision fall to the Navy, but the economic effects transcend DoD and need to be examined by other departments and agencies.

### A COORDINATED U.S. RESPONSE

Countering an antiaccess challenge—whether it emanates from the CCP, Iran, ISIS, or other entities—requires a whole-of-government approach. If extrinsic events ensure the success of antiaccess strategies, a mechanism must be created to bring together the resources of non-DoD agencies to identify, analyze, plan for, and take actions to deter or respond to the antiaccess strategies of particular competitors. The problem is broader than a strictly military challenge, so the solutions must emanate from something broader than military campaign analysis. These solutions, when combined, would enhance the deterrence from armed conflict and the credibility of military options. DoD traditionally has had strong, practical, working relationships with DOS and the Central Intelligence Agency, but—as the examples above make clear—this is not enough.

It is never fair to argue for solutions without suggesting a process to generate them. There are at least three distinct methods or processes that the U.S. government has used in the past to coordinate across departments and agencies, or at least to determine how to coordinate. They are as follows: (1) creating an executive committee; (2) drafting presidential-level strategic plans; and (3) appointing a bureaucratic "czar" or setting up a "coordinating center." Each method has its pros and cons, its assumptions and risks, and all should be considered. Of course, the last thing most government executives want to do is to staff yet another committee or maintain an independent center.

A primary model of the executive committee approach is the National Security Council (NSC). The public often perceives the assistant to the president for national security affairs (i.e., the national security advisor) and his or her staff as constituting the NSC, but that is primarily bureaucratic and journalistic shorthand.<sup>27</sup> The council actually is chaired by the president and falls under the Executive Office of the President. Its statutory members are the vice president, Secretary of State, Secretary of Defense, and Secretary of Energy. Other cabinet members (often the Attorney General) attend when requested (or when they insist on being invited). As strategic analysts are well aware, the national security advisor controls the process (the scheduling and content of meetings), thereby wielding an influence over policy that sometimes exceeds that of cabinet members, depending on his or her relationship with the president. The national security advisor has a staff of at least twenty-five deputies and special assistants (most

of whom focus on regional affairs), who attempt to tailor policy responses to the council's (or the national security advisor's) interests.<sup>28</sup>

Creating a position of special assistant for countering antiaccess strategies within the NSC staff would be one method of raising the awareness of top national security decision makers, including the president, regarding how comprehensive the antiaccess challenge is. This special assistant could coordinate a government-wide strategic response. Of course, the assumption is that such a special assistant would be able to raise the issue to the council via the national security advisor. The risk of that assumption is that the number of issues and topics facing the national security advisor is prodigious, and the need for a comprehensive strategy in this area might not be considered a priority. The personal relationship between the special assistant and the national security advisor might determine whether the issue rose to the council level.

An additional assumption is that, having been given direction by either the council or the national security advisor, the special assistant would have the credibility and interpersonal skills necessary to coordinate responses from agencies that might be disinterested or recalcitrant. <sup>29</sup> The NSC staff itself has no authority over the policies of the agencies except that which the relationship between the national security advisor and the president implies. The cabinet-level council members likely would inform their own staffs of decisions relating to a comprehensive strategy; but, again, the risk is that the strategy's importance would get lost amid the noise of other issues, leaving the special assistant with little influence over member priorities. Moreover, many departments and agencies are not represented on the council, and incorporating them via invited attendance or through the efforts of the special assistant likely would be difficult. However, if the special assistant were successful in these tasks, he or she might become effectively an antiaccess issues czar—converting this first option into the third method of coordination.

At first glance, the second process—drafting and promulgating an executive, presidential-level, public document for implementing a counterantiaccess strategy (which might be termed an access strategy)—would seem the most desirable method by which to achieve government-wide coordination. The assumption is that once the president states, "This is my policy," members of the executive branch would endeavor to incorporate it into their department or agency plans and carry it out. The problem (and risk) is that it would get lost amid the myriad of such policy pronouncements—most published in "slick and glossy" format on a variety of issues, many of which contain language designed for public consumption that is too vague for actual policy implementation. Making government policy clear to the voting public is commendable; however, the reality is that, because such "strategies" primarily are a means of public communication, they generally are limited in actionable direction and are read only rarely by decision makers in other agencies, each of which has its own strategic plan, or at least its own policies and priorities.

Issuing a classified plan might allow the inclusion of actionable direction, approaching the specificity of a war plan, and perhaps that would be the appropriate way to initiate interagency coordination and collaboration. However, two risks or disadvantages need to be considered. First, classification inevitably results in limiting the audience. Second, allowing access to classified material across agency boundaries is difficult owing to conflicting or inconsistent classification standards, particularly among agencies that do not have a history of close cooperation. Both risks can be mitigated, but they cannot be ignored.

The third method is the creation of a czar who has independent authority over specific actions and can direct activities through a coordination center staffed by individuals seconded from and empowered by their parent agencies. As it relates to the federal government, *czar* is an informal term used, primarily by the media, to refer to a senior official charged with developing and implementing a specific policy rather than leading an agency. Examples include the head of the Office of War Information during the Second World War and the director of the National Cybersecurity Center, director of National Drug Control Policy, and director of the Office of National AIDS Policy today. However, the effectiveness of the individuals appointed to these positions is always dependent on their personal relationships with the president and their ability to assuage the concerns of cabinet members and agency directors as well as Congress. The risk of tasking a policy czar with coordinating an overall approach to countering antiaccess strategies is that he or she becomes bureaucratically ineffective if he or she does not remain in the president's direct view.

So, which of the three methods would be appropriate for coordinating an intragovernmental response to competitors' antiaccess strategies? The most honest answer—"It depends"—is hardly satisfying. However, application of the principle that, when dealing with uncertainty, the simplest solution is the place to start means that appointment of an NSC staff special assistant for countering antiaccess strategies would be the logical initial—inevitably experimental—step. It appears the least costly option, in that it builds on an existing process, with a specific individual responsible for success or failure. That individual would be responsible for managing the drafting of an actionable U.S. counterantiaccess plan—here's where *access strategy* might be a better term—by subject-matter experts from all agencies involved.<sup>31</sup> Once such an access strategy was approved

via the NSC process, the same special assistant would be tasked with achieving interagency implementation. The risks can be mitigated only by appointing a particularly skilled and determined individual, and those risks might reemerge when that particular individual departed.

### PURVIEW OF AN ACCESS STRATEGY

It is important to note that a government-wide access strategy should not duplicate the campaign analysis that DoD conducts. Responsibility for planning to conduct combat operations against an opponent's antiaccess posture or campaign belongs to DoD, and the department has expended great effort to examine the problem from a war-fighting perspective. In Admiral Richardson's article, the CNO comments that "the A2AD problem is currently well understood—challenging, but understood." On the operational level, he is right. There is plenty of room for debate concerning the means and force structure required to "break the great walls," but that debate is ongoing.

The government-wide access strategy should focus on assessing extrinsic events—that is what is lacking. We need a plan—one that goes beyond the purely military—to routinely identify, analyze, deter, and, if necessary, respond to elements of an antiaccess strategy. National security agencies certainly examine many of the nonmilitary aspects of antiaccess, such as governments deploying fishermen as maritime militia, exerting economic pressures on neighboring states, and fomenting ethnic disturbances in "near abroads." However, these nonmilitary aspects currently are considered as isolated phenomena or merely regional events. China experts examine the use of the maritime militia. Russia experts examine naval basing in Syria. Such steps are examined in terms of their effects on sovereignty claims in the South China Sea or the military balance in the Mediterranean; they are not examined as tactics in support of strategies to reduce the influence and presence of the United States and other Western nations as a prelude to denying U.S. access to the region through military means. They are not seen as coordinated components. Moreover, the questions of how to deter such actions and how to respond with nonmilitary means currently are examined in isolation or not at all.

Use of the term grand strategy often provokes definitional debates. If it is defined as a strategy based on all vital interests of a nation-state (or some other, nongovernmental global actor), then antiaccess strategies are only a part of grand strategy. Yet the perspective required to understand antiaccess must be grand, the instruments of deterrence and response must be grand, and countering antiaccess strategies must be a grand effort.

What are the assumptions and risks involved in creating a government-wide access strategy?

Obviously, the entering assumption is that the very concept of antiaccess is real or practical and not simply an academic construct. Thus far, experts have not challenged its validity, but perhaps that is only because it is perceived as a DoD-only issue. A vigorous debate would be useful. Some analysts may doubt that potential opponents can implement and coordinate antiaccess strategies, because of their complexity. However, antiaccess strategies leading to war primarily have been the tools of authoritarian regimes (such as imperial Japan and juntacontrolled Argentina), which have the means to coordinate nongovernmental as well as governmental resources.<sup>32</sup>

The risks might include the NSC fixating on the antiaccess concept, so that it sees conspiracies at every hand. However, the likely military and geopolitical opponents of the United States and its allies and partners are pretty easy to identify. If assessing their actions in terms of the antiaccess concept and examining nonmilitary means of responding lead to enhanced deterrence, a coordinated access strategy has done its job. From the perspective of DoD, any nonmilitary means of response serve to fortify its military planning. A strategic plan need not be implemented to be useful; it is useful if it identifies options that the president had not examined previously. The primary risk, therefore, is that the time and effort of the planners involved will be wasted if decision makers ultimately reject the concept and plan. Of course, that occurs every single day in the world of strategic planning.

## OPERATIONALLY READY, BUT STRATEGICALLY UNPREPARED

Regarding the CNO's remarks, DoD indeed has examined the antiaccess concept from a war-fighting perspective. The studies and reports are numerous, and presumably the key insights have been integrated into the operational planning of the combatant commanders. The naval services, like the other services, have attempted to grapple with the A2/AD environment in developing their force structures. DoD officials of the Obama administration certainly were attuned to the military aspects of the antiaccess challenge. Indeed, prior to his return to government service, Deputy Secretary of Defense Robert O. Work authored significant reports related to A2/AD.<sup>33</sup> The air-sea battle approach to syncing Navy and Air Force efforts in a potential counterantiaccess campaign eventually was sunk, but that was because it hit the rocks of joint ideology, diplomatic concerns, and academic alarmism, not because the existence of the threat was rejected.<sup>34</sup>

It is easy to argue that the U.S. Navy, along with other services, has not made the correct investments to deal with antiaccess campaigns, but making forcestructure changes to a current fleet whose life span exceeds thirty years is not easy.<sup>35</sup> There are many gaps in our capabilities to break the great walls.<sup>36</sup> Yet it would seem that the CNO's perception that—within DoD—the A2/AD problem is "currently well understood" is true.

But while that may be true on the operational level, the strategic antiaccess challenge will not be understood well unless we examine it as a whole. We need to move beyond DoD campaign analysis to assessing the extrinsic events that can constitute the nonmilitary elements that comprise such campaigns. We do not need the genius of a Leonardo, Machiavelli, or Dante to do that. What we need is a process that brings together the minds of all the practitioners, develops an intragovernmental strategic plan, and assigns responsibility to an individual to ensure coordination and execution. Would integrating the planning of DoD and the other relevant agencies perhaps produce a "strategic renaissance"?

#### NOTES

The author thanks the anonymous referee who went far beyond commentary and assisted substantially with editing.

- 1. For a discussion of U.S. control of the commons and facilitation of the overseas movement of decisive U.S. forces, see Barry R. Posen, "Command of the Commons: The Military Foundation of U.S. Hegemony," International Security 28, no. 1 (Summer 2003),
- 2. Joint doctrine approaches "planning and coordination with other agencies" with the perspective that the nonmilitary agencies are functioning in support of DoD, rather than as bureaucratic-political equals. See, for example, U.S. Defense Dept., Joint Operation Planning, JP 5-0 (Washington, DC: Joint Staff, August 11, 2011), pp. II-36-II-37.
- 3. Such operational-level analysis has gone by a number of names over the years, such as mission analysis, military modeling, campaign modeling, campaign simulations, and analysis of objectives. Campaign analysis is currently the preferred term used by the Military Operation Research Society and the staff of the Chief of Naval Operations.
- 4. A study that does examine a comprehensive nonmilitary approach to the South China Sea antiaccess scenario is Ross Babbage, Countering China's Adventurism in the South China Sea: Strategy Options for the Trump

- Administration (Washington, DC: Center for Strategic and Budgetary Assessments [hereafter CSBA], 2016).
- 5. For a discussion of the unfortunate effects, see Sam J. Tangredi, "CNO vs A2AD: Why Admiral Richardson Is Right about Deconstructing the A2/AD Term," The Navalist, January 10, 2017, thenavalist.com/.
- 6. U.S. Defense Dept., Joint Operational Access Concept (JOAC), ver. 1.0 (Washington, DC: Joint Staff [J7], January 17, 2012), p. 3.
- 7. Ibid., p. 1.
- 8. The extensive efforts within the U.S. government (and with NATO allies) to coordinate trade policies with the Soviet Union is discussed throughout Philip J. Funigiello, American-Soviet Trade in the Cold War (Chapel Hill: Univ. of North Carolina Press, 1988).
- 9. The question whether economic sanctions (the term embargo usually is not countenanced) levied or led by the U.S. government have achieved their stated goals is debated hotly. It must be observed, however, that some of the sanctioned states required subsequent military (or cyber) actions to force them to curtail their objectionable activities, and others with tight authoritarian regimes simply have lived with the sanctions. Sanctions may have degraded, but did not dispossess, Saddam Hussein, the target of

the most substantial Western sanctions. A recent discussion of why most U.S. economic sanctions have failed is Bryan R. Early, Busted Sanctions: Explaining Why Economic Sanctions Fail (Stanford, CA: Stanford Univ. Press, 2015). A frequently used text that views sanctions in a positive light reports that "we found sanctions to be at least partially successful in 34 percent of the cases that we documented." But the authors caveat this statistic by admitting that most of the successful episodes involved "modest and limited goals." This can be translated to mean that in nearly 70 percent of the cases sanctions had no effect, and in 30 percent they had modest effects. Gary Clyde Hufbauer et al., Economic Sanctions Reconsidered, 3rd ed. (Washington, DC: Peterson Institute for International Economics, 2007), pp. 158-59.

- 10. The term *transagency* is used instead of *interagency* because, whereas *interagency* usually implies cooperation, in these areas many of the issues crossed agency lines but were not coordinated; in some cases, they were never even recognized as requiring participation by other agencies.
- John M. Collins, Grand Strategy: Principles and Practices (Annapolis, MD: Naval Institute Press, 1974), p. 167.
- 12. Donald C. Daniel and Katherine L. Herbig, eds., *Strategic Military Deception* (New York: Pergamon, 1981), p. xi.
- Sam J. Tangredi, Anti-access Warfare: Countering A2/AD Strategies (Annapolis, MD: Naval Institute Press, 2013), pp. 107–33, 234–35.
- 14. Xerxes was able to suppress most of these revolts on his return; however, they broke out in earnest on his death. The Athenian role in these revolts, particularly in Egypt, is detailed in John R. Hale, *Lords of the Sea: The Epic Story of the Athenian Navy and the Birth of Democracy* (New York: Penguin, 2009), pp. 99–109.
- 15. Two excellent sources that describe the activities surrounding the first Spanish armada are Colin Martin and Geoffrey Parker, *The Spanish Armada* (New York: W. W. Norton, 1989); and Garrett Mattingly, *The Armada* (Boston: Houghton Mifflin, 1959).
- 16. A good depiction of the capture and destruction of Athens is provided in Barry Strauss, *The Battle of Salamis: The Naval Encounter*

- That Saved Greece—and Western Civilization (New York: Simon & Schuster, 2004), pp. 59–72.
- 17. In fairness to CSBA's work, its usage of the term A2/AD was intended to develop an "operational concept" for dealing with the military challenges at the operational level of war that a Chinese or Iranian antiaccess approach poses. The problem is that developing an operational concept without an examination of nonmilitary factors results in operations divorced from strategic objectives.
- 18. Tangredi, Anti-access Warfare, pp. 40-52.
- 19. John Richardson [Adm., USN], "Deconstructing A2AD," *National Interest*, October 3, 2016, nationalinterest.org/.
- 20. This leaves aside the fact that the South China Sea scenario both is less probable and would be less operationally taxing than a conflict over Taiwan.
- 21. The treaty does not ban sea-based IRBMs. A recent congressionally mandated study on USN future fleet architecture completed by the MITRE Corporation recommends the development of a sea-based Pershing III missile as a deterrent and response to Chinese ASBMs. MITRE, *Navy Future Fleet Architecture Platform Study* (McLean, VA: July 1, 2016). The publication is available on the website of Senator John McCain, www.mccain.senate.gov/.
- 22. Paul Bracken long has argued that a nuclear arms race in Asia is inevitable. Currently dormant, it is waiting for a spark. See Paul Bracken, Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age (New York: HarperCollins, 1999).
- 23. Estimates of Chinese dominance over the rare earth elements vary, but U.S. Director of National Intelligence James Clapper estimated in 2013 that it had a 95 percent market share. See Jeff Nesbit, "China's Continuing Monopoly over Rare Earth Minerals," U.S. News & World Report, April 2, 2013, www.usnews.com/.
- 24. A discussion of economic responses to the South China Sea scenario is in Babbage, *Countering China's Adventurism in the South China Sea*, pp. 29–30, 52, 58–61. Of course, business opposition to such a move would be extreme. As Michael Mandelbaum notes, "By

- 1994 the American business community had mobilized in opposition to using trade with China as leverage for the pursuit of political goals. . . . China's remarkable economic growth since the beginning of reforms in 1979 had created an American political constituency for preserving economic ties between the two countries." Michael Mandelbaum, Mission Failure: America and the World in the Post-Cold War Era (New York: Oxford Univ. Press, 2016), pp. 28-29.
- 25. The argument that extrinsic events ensure the success of antiaccess strategies is developed in Tangredi, Anti-access Warfare, pp. 20-22, 104-105, 114-15, 122, 128.
- 26. These "methods" are my own terminology, adopted for the sake of simplicity. There are many more-specific and more-erudite terms that could be used to describe the models, and the terms used in this article are certainly not official. Detailed definition and description are beyond the scope of the article.
- 27. This description is admittedly a simple outline of the NSC and its staff. A recent detailed discussion is R. D. Hooker Jr., The NSC Staff: New Choices for a New Administration, INSS Strategic Monograph (Washington, DC: National Defense Univ. Press, 2016).
- 28. These deputies and special assistants have their own ministaffs of two to ten personnel seconded from government agencies. Hooker reports that during the Obama administration there were over four hundred people on the NSC staff, although this included those who supported the White House Situation Room and performed other ancillary functions. Ibid., p. 10.
- 29. Hooker maintains that NSC staff offices "with cross-cutting responsibilities" have invited internal "conflict and competition." "Without a very limited and clearly defined charter, such offices will tend to stray across the policy landscape, often leading to in-fighting and intramural clashes." Ibid. Avoiding this would require an assignee with a strong

- sense of cooperation and tact—qualities that Hooker suggests are necessary for all NSC staff members.
- 30. In a bitter statement posted on the White House website, President Obama's director of communications Anita Dunn attacks the use of the term *czar*, portraying it as partisan. However, she does admit that there were "jobs that involved coordinating the work of agencies on President Obama's key policy priorities." Anita Dunn, "The Truth about 'Czars," The White House (blog), September 16, 2009, obamawhitehouse.archives.gov/.
- 31. Use of the term *access* is meant to parallel the concepts of operational access, assured access, and access to the commons used in DoD, particularly in the *JOAC* and *JAM-GC*.
- 32. On the Argentine case, see Tangredi, Antiaccess Warfare, pp. 149-56.
- 33. For example, Robert O. Work [Col., USMC (Ret.)], The Challenge of Maritime Transformation: Is Bigger Better? (Washington, DC: CSBA, 2002), pp. 22-30.
- 34. A fine example of academic alarmism concerning air/sea battle is Amitai Etzioni, "Who Authorized Preparations for War with China?," Yale Journal of International Affairs 8, no. 2 (Summer 2013), pp. 37-51, www2 .gwu.edu/.
- 35. Tying the concept of antiaccess to forcestructure decisions seems to provoke accusations that the whole concept (and the former Air-Sea Battle Office) is merely a method for the U.S. Navy and Air Force to grab a greater share of the defense budget away from other services and agencies. However, one hopes that all strategies are designed to be implemented, requiring force-structure choices.
- 36. An example of the discussion of a particular gap in the context of A2/AD is Sam J. Tangredi [Capt., USN (Ret.)], "Breaking the Antiaccess Wall," U.S. Naval Institute Proceedings 141/5/1,347 (May 2015), pp. 40-45, available at www.usni.org/.

## RIVERINE WARFARE

## **Exploiting a Vital Maneuver Space**

Kevin Rowlands

There was usually too much water for the soldiers, but not enough for the sailors.

VICE ADMIRAL WILFRED NUNN, 1932

espite a long history, riverine operations have received only scant attention from the academic community and military analysts. The little writing that exists on the topic tends to be either personal memoir or tactical instruction, with serious analyses few and far between, and then often hidden away in more-general texts on amphibious warfare. This article sets out to explore this unfamiliar yet vital territory to determine the relevance of riverine operations to contemporary and future military campaigns. It is pertinent now, as budget allocations once again are reviewed and NATO's amphibious doctrine is refreshed.

The article approaches the subject in three parts, each building toward an understanding of riverine operations in the modern context. First, the nature of the riverine environment itself is discussed, using a classical geopolitical approach to explain where the world's major riverine areas are and why they are important in security terms. Second, a historical review of military operations in the riverine environment is presented, using case studies that range from the earliest recorded naval battle, in the thirteenth century BCE, to the present day. The case studies highlight numerous applications of military power, and consequently they help

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to build a general understanding of what riverine operations are. (It is worth noting at this juncture, however, what riverine operations are not. This article investigates naval and military operations from and on rivers; it does not consider the methods land forces use to cross riverine obstacles, and these purposely are omitted from the commentary.) The third part combines the earlier findings with contemporary commentary.

A final section offers some conclusions. In particular, riverine environments have the potential to become a critical maneuver space in the twenty-first century. Global strategic trends, from globalization to population migration and urbanization, place these riverine systems at the forefront of likely zones of conflict. Therefore it is simply prudent militarily to possess the ability to operate and maneuver effectively in such areas.

## UNDERSTANDING THE RIVERINE ENVIRONMENT: THE GEOPOLITICAL REALITY

To understand the importance of the riverine environment, one first must understand the river's place within the global context. Geopolitics had its genesis as a serious discipline in the late nineteenth and early twentieth centuries, and among its first and most important writers—although he did not use the term geopolitics himself—was Sir Halford Mackinder. Mackinder presented an analysis of the world very different from the views prevalent at the time. He made continent-wide sweeping generalizations, and in doing so emphasized the "physical control, rather than the causes of universal history" in his conceptual thinking.1 In 1904, he published a seminal paper entitled "The Geographical Pivot of History," in which he argued that the world had become a closed political system and that taking a broad, global view was necessary to understand it. In the political geography of the time, the key area, which Mackinder called the "heartland" or "pivot," was thought to be the sparsely populated center of the Eurasian landmass, around which were the marginal coastal states and islands, which he placed in an "Inner Crescent" and an "Outer Crescent." To Mackinder, the heartland was the region of strategic importance, and he is remembered best for his later statement that "[w]ho rules the heartland commands the World Island; who rules the World Island commands the World."2

Alfred Thayer Mahan, the great American naval strategist and historian who wrote at around the same time as Mackinder, also can be considered a geopolitical commentator. Contrary to Mackinder's hypothesis, a central strand of Mahan's work was that not territorial control but access to and control of strategically important areas was the ultimate requirement for national growth. To Mahan, the heartland was less critical than the coastal areas on its periphery.<sup>3</sup> This grand, global analysis was developed further by later scholars of realist geopolitics such as Nicholas Spykman, who coined the term rimland for those areas on the maritime fringes. In common with Mahan, Spykman considered these areas to be the most significant geopolitically because they contained the greatest concentration of human and physical resources and lay at the junction of the continental and maritime worlds. As such, they were the key to the balance of world power.<sup>4</sup> Therein lay their security problem: they had to "fend off threats

FIGURE 1 MACKINDER'S "SEATS OF POWER" MAP

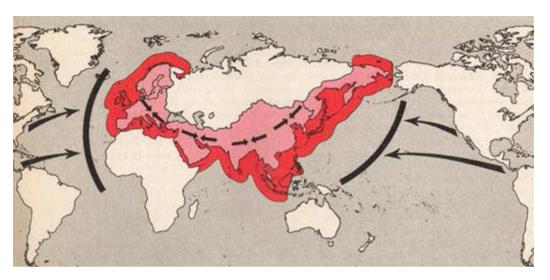
Source: First published in 1904 and reproduced in Mackinder, "The Geographical Pivot of History," p. 38.

from both land and sea." The figure below shows Spykman's map of the primary rimland, which he also termed the Eurasian conflict zone. Interestingly, this conflict zone, first identified in the 1940s, is striking in its similarity to Mackinder's inner or marginal crescent. Contemporary readers will not be surprised to find that it is almost identical to the new "arc of instability" to which U.S. Secretary of Defense James Mattis referred in a speech to the Munich Security Conference in February 2017.6

The relevance of grand geopolitical theory in the context of this article, of course, is that this contested rimland, this arc of instability, the strategic and tactical focus for Western defense planners, is also the home of the world's great riverine systems. It was out of the alluvial basins of four great rivers—the Tigris-Euphrates in Mesopotamia, the Nile in Egypt, the Indus in the subcontinent, and the Yellow River in China—that the great civilizations arose.<sup>7</sup>

For much of human history, rivers provided the only means of transport for exploration and commercial exploitation of land; the colonization of Africa in the nineteenth century, for example, would not have been possible without navigable rivers. The British expanded their empire in the west via the Niger and Gambia Rivers, and the Belgians used the Congo to bring European control to much of central Africa.<sup>8</sup> As the colonial powers spread their influence around the world, rivers commonly were used as boundaries, often because they were the only geographical features marked on maps. Today, approximately 30 percent of the

FIGURE 2 SPYKMAN'S "RIMLAND" MAP



Source: Spykman, The Geography of the Peace, pp. 51-52.

world's 158,554 miles of land borders are made up of waterways—and these can be the cause of dispute.<sup>9</sup>

It would be wrong to assume that the importance of rivers as a means of communication has lessened in the twenty-first century. The Amazon remains navigable by oceangoing ships for 2,300 miles, the Chang (Yangtze) for 620 miles, and the Saint Lawrence for 1,300 miles, and all are vital to the flow of trade. And clearly, not all riverine trade is legitimate; for example, it was estimated just over a decade ago that rivers carried over 80 percent of drug-related traffic in Colombia.

The water from rivers provides a vital life support for the populations living near them. Millions of square miles of land globally are permanently irrigated by river waters; much of this expanse is in the densely populated regions of East and Southeast Asia. Rivers also provide the source for much energy generation; hydroelectric power plants currently supply 13 percent of the total annual electricity needs of the United States. However, this degree of successful exploitation is not universal, and significant potential exists in the untapped resources of central and southern Asia, Africa, and South America. The extensive use of rivers and riverine areas has led to very significant environmental degradation in some cases, and the potential for more. Commercial navigation and dredging have affected rates of erosion and have impacted agriculture; pollution has resulted in severe risks to health; and the industrial use of rivers, from the taking of cooling water to the discharge of effluent, has led to changes in ecosystems that affect the ecologies and food chains of entire regions.

The geopolitical reality is that the riverine environments of the world tend to be the areas that are susceptible to the greatest shock in security terms. They are very highly populated; they rely heavily on the river waters for agriculture, industry, power, and transport; and they are both potential sources and victims of severe environmental impacts, with the accompanying risks to individual human health and societal sustainability. They also are located in strategically relevant areas—areas in which the international community has an interest in maintaining stability.

## OPERATIONS IN THE RIVERINE ENVIRONMENT— THE HISTORICAL CONTEXT

In the preindustrial age, when the world was in large part subject to the dominion of empires, wars tended to be fought for control of territory. Navies extended the influence of their political masters to places inaccessible by other means, and in so doing they long have fought on inland waters. Probably the first recorded naval battle in history was that between the Egyptians and the invading "Sea Peoples" in the thirteenth century BCE. The invaders used various routes into Egypt, including an attack through the tributaries in the Nile delta, but were defeated on the rivers and on land by the defending Egyptian forces. 14 The two sides came faceto-face on the waters of the Nile and engaged in battle; in today's phraseology, this early example of riverine warfare between two opposing armies can be classified as a major combat operation.

In the American War of Independence (1775–83), extensive riverine operations took place. <sup>15</sup> In 1775, American forces conducted river patrols around Lake Champlain in the New England-Canada border region and gained control of the waterways, preventing British forces from maneuvering in an area without roads. The Americans then used the waterways as a means of transportation for land forces in the invasion of Canada; the multiple axes of advance bested the British defenses, Montreal was taken, and the Continental forces under the command of Benedict Arnold reached as far as Quebec. 16 Area control was exercised and, logistically, the use of the riverine environment for troop transportation was entirely successful.

The operational movement of armies by river was a significant feature in the American Civil War (1861-65) as well. General Ulysses S. Grant used established river networks to place his army of 18,000 men close to Petersburg in 1864, gaining a "tremendous advantage" over General Robert E. Lee's opposing forces. Both Union and Confederate forces deployed significant numbers of ships and boats on the rivers and deltas of the states, including well over a hundred vessels, some of them ironclads, on the Mississippi alone.<sup>17</sup> The city of New Orleans fell to Union naval forces attacking from the river and, for the first time in riverine



FIGURE 3
AN IRONCLAD ON THE MISSISSIPPI RIVER DURING THE AMERICAN CIVIL WAR

Source: "USS St. Louis in 1862," Steamboat Times, steamboattimes.com/.

warfare, the Confederate navy put significant emphasis on denying its enemy the use of the riverine environment by irregular means, including mining and the use of barrages and other obstructions. <sup>18</sup> Ultimately, however, Union riverine forces gained the upper hand and achieved control of the major waterways—with long-lasting strategic effect. Their control of the Mississippi effectively cut the Confederacy in two and severed its vital supply lines from the West and South. <sup>19</sup> The American Civil War showed the utility of riverine forces in major combat operations, troop transportation, the denial of enemy maneuver space, and the disruption of supplies.

British riverine operations followed a similar pattern in the latter part of the nineteenth century. A Royal Navy flotilla accompanied Lord Kitchener on his expedition up the Nile during the 1898 reconquest of the Sudan after the Mahdist Revolt, performing a number of functions in support of the land forces. The flotilla was used first in a logistical capacity, transporting men, weaponry, and provisions from Egypt, and then very effectively as field artillery, bombarding dervish positions near the river. Because of its asymmetry and relatively low-intensity nature, the Mahdist Revolt cannot be classified as a major combat operation. However, it is perhaps indicative of a shift along the spectrum of conflict toward counterinsurgency, as the preindustrial age merged into the industrial.

Riverine operations did not feature to a significant degree in the primary theaters of World Wars I and II, the two major interstate conflicts of the industrial age. There could be a number of reasons for this, not least the descent into trench warfare during the 1914-18 conflict in Europe and the greater use of improved motorized vehicles for transport in 1939-45. In addition, in the major combat operations of the industrial age, air superiority was essential; in general, riverine operations took place only in areas in which air superiority had been won or, at least, where it was denied to the enemy. The trend, therefore, was for operations on rivers to be increasingly on the periphery of conflicts, in terms of both geography and intensity.

However, there are good examples of riverine operations taking place during and between the world wars, and Vice Admiral Wilfred Nunn gave an excellent personal account of the British action against Ottoman forces in Mesopotamia during the First World War in his memoir *Tigris Gunboats*. <sup>21</sup> Although geographically disconnected from the main battleground of Europe, the war in the Middle East was of strategic importance to all sides, with "Turkey, Iraq and Britain . . . [in] . . . a battle for the control and ultimate utilization of not only the waters of the [Tigris and Euphrates] rivers but . . . for virtually all the natural resources of the region."22

The complex theater of the Middle East was one in which major interstate war, colonial liberation movements, and the protection of key economic infrastructure were conducted side by side; in effect, the war in Iraq oscillated between major combat and a series of running skirmishes. Nunn explains how oceangoing warships, redirected from India, operated in the rivers of Iraq during the Mesopotamia campaign. They were used in a variety of tasks, from the insertion of advanced forces for covert operations, such as cutting Turkish communication lines, to the landing of the main British expeditionary force in 1914, and subsequent patrols along the main thoroughfare of the desert.<sup>23</sup> Analysis of Nunn's account shows riverine operations used for prelanding and amphibious assault operations, support to land forces, and assistance to the anti-Ottoman insurgency conducted by the indigenous Arab populace.

Although riverine operations did not become divorced completely from major combat operations, they clearly were trending from higher to lower intensity along the spectrum of warfare. One important aspect of Nunn's book is the emphasis he gives to the necessity for close cooperation between land and maritime elements operating in a riverine environment.<sup>24</sup>

As predicted by the geopolitical overview outlined earlier, many of the armed independence movements that arose in the aftermath of the Second World War took place in the rimland, the regions of the world with extensive riverine environments, none more so than Southeast Asia. During the decade of the Malayan Emergency (1948–58), naval operations deep into the jungle by river provided both fire support to and transport for members of the predominantly land security forces and were of considerable importance in this classic counterinsurgency campaign.<sup>25</sup>

Similarly, during the Indonesian "Confrontation" (1962–66) rivers often provided the only means of access through difficult terrain. Riverine operations there ranged from routine logistical resupply to opposed amphibious raids against rebel groupings and "hearts and minds" patrols to demonstrate the presence of the legitimate authority in difficult-to-reach areas. <sup>26</sup> In both Malaya and Indonesia there was little or no direct threat from the air, and the operations the riverine forces conducted formed an integral part of what became British counterinsurgency tactics.

Perhaps the zenith of industrial-age riverine operations came in the French and American campaigns in Vietnam from the late 1940s until the mid-1970s; it was certainly the period that produced the greatest volume of written accounts. The commentators, be they servicemen who experienced the operations themselves or academics analyzing the period, tell essentially the same story. Japanese, French, Vietnamese, and American activity on the waterways of Southeast Asia

FIGURE 4
USN CRAFT IN OPERATION GAME WARDEN, CA. 1968



Source: "Game Warden Support," USS Duncan Reunion Association, www.ussduncan.org/.

was fundamentally the same, differing only in scale according to the requirements of the time.<sup>27</sup> Perhaps the role that riverine forces performed is explained best by the varied types of vessel employed: patrol boats, assault craft, troop carriers, flamethrowers, minesweepers, and command-and-control units.<sup>28</sup>

The necessity for riverine operations in Vietnam becomes clear when its geography is considered. The Mekong Delta took up one-fifth of South Vietnam's area, and there were few roads but over 2,500 miles of man-made canals and natural waterways.<sup>29</sup> Writing in 1973, Major General William B. Fulton, USA, stated that it was "not possible for a land force to operate in the Mekong Delta in 1965 without some means of maneuver on water."30

Fulton, who was instrumental in the establishment of the U.S. riverine force in the mid-1960s, explains that the initial concept was to use its craft as a mobile base for troops, capable of maintaining a brigade-sized formation in the delta for up to six months.<sup>31</sup> He goes on to describe some of the wider utility of such a joint capability: "This Army and Navy force of approximately 5,000 men capable of combat and containing within itself combat service support could be moved from 100 to 200 km in a 24-hour period and could then launch a day or night operation within 30 minutes after anchoring; its true potential is apparent." Fulton gives numerous examples of the effectiveness of a low-footprint force, from fire support to strike operations against enemy bases that "in some instances had not been penetrated for two or three years."33

However, others have argued that the true potential of the riverine force in Vietnam was not in its offensive capability but in its ability to prevent Vietcong supply operations. The coastal patrols of Operation MARKET TIME, by the U.S. Coast Guard and Navy, and the river patrols of Operation GAME WARDEN in the late 1960s were not mounted merely to clear the delta of enemies but to deny them use of it.<sup>34</sup> This distinction between destroying an enemy and curtailing its activities points to a niche role that riverine operations can fulfill in the wider prosecution of a campaign.

After the Tet Offensive in 1968, GAME WARDEN and MARKET TIME were amalgamated and became the Southeast Asia Lake, Ocean, River, and Delta Strategy, known as SEALORDS. The emergence of a tactical doctrine of interdiction, pacification, and area clearance through limited offensive action started in the early days of the Vietnam engagement and its evolution continued through the later stages of the war and, by default, into the postindustrial era to today.

Despite the importance of the joint action in the Mekong Delta to the overall campaign, little effort went into analyzing the lessons of Vietnam riverine operations and formulating them for application to future conflicts.<sup>35</sup> The capability that had been built up in time of need largely atrophied during the final fifteen years of the Cold War. However, a period of increased international interventionism and a surge in peacekeeping operations following the demise of the Soviet Union led to a renewal of interest in the riverine environment in the early 1990s. To some, the peacekeeping experience was an indication of the likely shape of future conflict, and the subsequent bias of attention meant that certain capabilities were "rebranded" to fit the new requirement. James D. Kiras, for instance, was one of a very few writers in the immediate post–Cold War period to undertake a review of the American riverine experiences in Vietnam, but he did so to draw lessons from the "wealth of tactical and operational experience" to show that the riverine capability could be applied to peacekeeping. <sup>36</sup>

A good example of the early post–Cold War peacekeeping effort, and one that involved a significant riverine contribution, was the UN Advance Mission in Cambodia, 1991–92, and UN Transitional Authority in Cambodia (UNTAC), 1992–93. UNTAC was born out of the Paris Peace Accords of 1991–92 and aimed to bring order to Cambodia after years of civil war.<sup>37</sup> One part of the military effort was the water-based patrolling of the coast and rivers, which involved fifteen coastal vessels, eleven landing craft, and over fifty small boats.<sup>38</sup>

Kiras states that "those navies which maintain substantial riverine forces are, not surprisingly, those with internal security problems and major waterways."39 Clearly, internal security problems can take many forms, and a different application of riverine operations has been seen in Colombia's counternarcotic and counterinsurgency campaigns. Developed since the 1950s, Colombia's riverine force has grown to be the largest in the world. It was designed to combat both the drug cartels operating in the country and the insurgent Revolutionary Armed Forces of Colombia, known as FARC. 40 The Colombian marines built a doctrine based on the core roles of riverine assault, surveillance, interdiction, and support, which has provided a high degree of success in their long-term efforts. 41 The Colombian model, founded on the lessons of others, has developed into an example of best practice for nations looking to grow such a capability. However, Kiras's assertion that riverine forces are built by those with internal security problems is due a reassessment. Postindustrial, post-Cold War focused intervention by the Western democracies, particularly the United States, has altered the shape of contemporary conflict, and there is ample evidence that riverine capabilities now are employed more broadly, as a study of Iraq shows.

The experiences of the U.S.-led coalition in Iraq from 2003 until 2010 were the catalyst for another renewal of interest in riverine operations. <sup>42</sup> Major combat operations commenced in March 2003 but lasted just a few weeks, until the collapse of Saddam Hussein's regime; thereafter the occupation of the country was met with sporadic cycles of relative peace, resistance, criminality, insurgency, and terrorism. The military mission in the country quickly became one of stabilization, with subsidiary operations across virtually the whole spectrum of conflict.

From the outset riverine forces were required; when hostilities commenced, the U.K. Royal Marines were involved intimately in the initial assault on the al-Faw peninsula and the subsequent patrols of the riverine environment in southern Iraq. They conducted thirty-one days of continuous boat operations over ninety miles of inland waterways, accomplished three opposed landings, and fired in excess of ten thousand rounds of ammunition. 43 The extensive marshlands in southeastern Iraq had to be cleared of enemy combatants while the main ground forces progressed north through the country. Inshore raiding craft and hovercraft were used to good effect, providing means of maneuver in an environment unsuitable for road vehicles and over which the safety of helicopters could not be guaranteed.44

Early stabilization tasking for the riverine forces after the initial combat phase ended focused on countering burgeoning criminality. A clear picture of activities on the river was built through patrol, reconnaissance, and engagement with local traders, with the result that river traffic suspected of smuggling contraband could be stopped and boarded; the mission lent effective support to the legitimate economy of the region.<sup>45</sup> Other countertrafficking operations took place farther inland, in the Maysan province in eastern Iraq. Riverine forces were the only coalition contingent able to operate in the reeds and marshes of the province, which was used as a major supply route for munitions and insurgents crossing the border from Iran. 46

In the north of Iraq, the U.S. Marine Corps Small Craft Company (SCCO) provided the initial riverine capability after the invasion. Again operating primarily on the Tigris and Euphrates Rivers, the SCCO's role increasingly became one of counterinsurgency, but the force's limited numbers meant that its personnel were spread thinly throughout the country, and their opponents exploited the gaps. In 2004, U.S. forces attempted to retake the cities of Samarra' and Fallujah, but, as one American officer explained at the time, the insurgents effectively were operating at will on the waterways. "The rivers are enemy territory and still uncontested. . . . Several different intelligence summaries indicated that the enemy forces were using the river as a primary avenue of reinforcement, resupply and egress."47

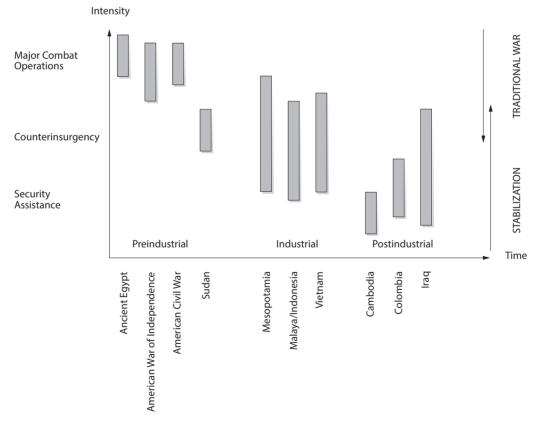
The U.S. Army and U.S. Marine Corps were able to set up traffic-control points to interdict insurgent movement on the roads and highways, but they had no capability for routine interdiction on the water. The Army's First Infantry Division tried to procure riverine craft, specifically to employ in its sector north of Baghdad.<sup>48</sup> However, as General Mattis, the commander of the First Marine Division during the battle for Fallujah, stated, "The enemy has exploited the lack of U.S. dominance in inland waterway warfare."49

The capability shortfall in the U.S. armory was acknowledged and addressed through the creation of a dedicated USN riverine group, consisting of three squadrons, as part of the Navy Expeditionary Combat Command. The naval squadrons took over for the stretched SCCO in 2007. The Expeditionary Combat Command listed the tasks that its riverine units were expected to fulfill, ranging from support to a landing force in an opposed amphibious assault at one end of the spectrum, to security assistance, interdiction, and casualty evacuation at the other. However, the riverine groups were rebranded as coastal riverine groups in 2012, with one located on each coast of the United States, but with only one riverine company per squadron.

### HISTORICAL TRENDS IN RIVERINE OPERATIONS

The vignettes above show that during the preindustrial age riverine operations primarily were a feature of major war fighting, and that river forces were used for four broad purposes: engagement of opposing maritime forces in battle,

FIGURE 5
RIVERINE OPERATIONS ALONG THE SPECTRUM OF CONFLICT



Source: The categorization of the intensity of the conflict (the y axis) is adapted from the spectrum of war as described in Benbow et al., Renewal of Navy's Riverine Capability, p. 65. The division of conflict into traditional war and stabilization is the author's own.

engagement of opposing land forces in battle from the waterways, own-forces transportation, and denial of the enemy's transportation.

As tactics developed in the industrial age, the intensity of action necessarily drove riverine operations from the main theaters of interstate war, and their employment became centered on counterinsurgency and support to land forces where little or no air threat was present. Counterinsurgency remained a theme into the postindustrial era, but the riverine environment also has seen increasing security-assistance efforts aimed at peacekeeping and anticriminality measures.

Although not perfectly linear, there has been a definite progression along the spectrum of conflict from traditional war fighting and major combat operations toward what is now called stabilization. The diagram in figure 5 illustrates this trend in graphical form. It does not situate each campaign exactly; rather, it attempts to show where the scope of each riverine operation sits along the spectrum of war. As such, it is a subjective assessment, but one generally supported by a historical analysis of riverine operations.

## CONTEMPORARY RELEVANCE

As the examples provided show, the operations in which riverine forces have been involved display common, enduring characteristics, such as control of waterways, interdiction, transportation, logistics support, and presence in difficult-to-reach areas. Each of these types of operation requires similar and transferable skill sets, and each of these skill sets is useful across the spectrum of operations, from major combat to stabilization and peace support. There is therefore high potential for the broad use of riverine forces in the future, particularly in Mattis's "arc of instability," with the Gulf of Guinea and parts of South America as additional hot spots in which they could operate. 53 An inability to maneuver effectively in these geographical spaces would render them no-go areas for intervention.

Activities need not require the use of force, however, and humanitarian assistance / disaster relief operations, such as facilitating the delivery of food and water to a distressed population, may be an immediate priority that civilian agencies are, for whatever reason, unable to meet. For instance, when Hurricane Katrina hit the U.S. Gulf Coast in 2005 it wreaked havoc across a wide area, flooding roads and making low-lying ground inaccessible. In an operation involving 5,600 Coast Guardsmen, the U.S. Coast Guard provided an immediate response that saved over thirty thousand people.<sup>54</sup> Within hours the U.S. Navy's Special Warfare Special Boat Team 22, based in Mississippi, was activated and was able to conduct search-and-rescue missions to deliver essential aid to stranded people.<sup>55</sup> Other governmental and nongovernmental organizations were to follow, but the immediate response to the emergency fell to the armed forces.

In a very different context but equally vitally, Bangladesh formed a riverine force in 2015 to protect UN barges delivering aid to beleaguered South Sudan on the river Nile—there was no other way to get through. <sup>56</sup> In security sector reform, riverine forces can engage in countercriminality work, assisting in ensuring the proper conduct of elections, as they did in Cambodia, and helping to train and mentor indigenous security forces, as the coalition naval advisory training teams did in Iraq. The development of the local economic infrastructure in a region of instability is primarily a civilian undertaking, but, as with all military deployments, there are circumstances in which riverine forces have a role to play. This might be in a direct manner, such as the management of harbors and waterways, or indirectly, by creating the stable conditions in which enterprise and growth can flourish.

Military operations for the Western powers over the last two decades unquestionably have been land-centric and, as Colin S. Gray warned with his concept of the "sin of presentism," it is all too easy to assume—and all too easy to get wrong—that the future will look much like today. However, "if maps of population spread and conflict are laid upon each other, it is evident that the littoral, estuaries, rivers, and lakes are vital arteries of life and thus foci of conflict." If this geopolitical assertion is accepted, then it is logical to conclude that the possession of an ability to operate and deliver effect in these environments is merely a practical expression of prudent military judgment.

The strategic importance of the world's littoral areas is fast becoming accepted wisdom. The similarity among Mackinder's *marginal crescents*, Mahan's *coastal periphery*, Spykman's *rimland*, and the contemporary arcs of "crisis," "concern," or "instability" is striking. Even a cursory glance at an atlas shows that the major river systems sit in the marginal regions between the continental and maritime worlds and are, and historically always have been, centers of population, commerce, and transportation, as well as boundaries between states and cultures. They also are a prime breeding ground for those sources of instability that the interdependent core of the international community has to tackle in defense of its own self-interest; human migration, environmental degradation, and economic stagnation are just some examples of processes that can lead to failed states and fragile regions.

There is clear evidence of naval warfare on rivers from the very earliest recorded battles to the present day. Examination of the nature of riverine operations through the ages makes it possible to identify several common denominators. In particular, the employment of riverine forces has been largely consistent, whether in war, counterinsurgency, or security assistance. Their utility has been demonstrated time and again in the areas of transportation, especially in difficult-to-reach areas; logistical support to land forces; and the denial of vital

maneuver space to an enemy. Although there is not a perfectly linear progression, there has been a definite trend toward riverine operations being conducted at the lower-intensity end of the conflict spectrum. Historically, riverine operations have a distinguished pedigree, and there is no evidence to suggest this has come to an end.

However, although navies long have undertaken riverine operations, the maintenance of such a capability on inland waterways has been inconsistent and episodic, especially during the era of industrial warfare. In most cases, riverine operations have been mounted on an ad hoc basis and the capability has been disestablished on completion.<sup>58</sup> Choosing to break this cycle by maintaining a base level of capability available to be employed whenever required is clearly a policy decision, and one dependent on numerous factors, not least perceptions of threat, the level of existing commitments, and the availability of resources.

The principal conclusion therefore must be that riverine operations have a fundamental relevance to contemporary and future campaigns. They may not be the only maritime contribution, but they have the potential to provide very significant contributions to military involvement—in particular, stabilization and development. Some countries, such as the United States, have invested in the maintenance of a rudimentary riverine capability, clearly seeing the riverine environment as a likely and critical maneuver space in the future. Those other Western, liberal democracies that actively continue to pursue interventionist foreign and defense policies in the interdependent world would be prudent to review the evidence and do likewise.

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# THE AIRCRAFT CARRIER IN INDIAN NAVAL DOCTRINE

## Assessing the Likely Usefulness of the Flattop in an Indo-Pakistani War Scenario

Ben Wan Beng Ho

n October 2015, the Indian navy released a document entitled *Ensuring Secure Seas: Indian Maritime Security Strategy (IMMS-2015)*. In contrast to its more conservative predecessor, *Freedom to Use the Seas: India's Maritime Military Strategy*, published in 2007, the new strategic document propounds a more assertive role for the Indian navy over the next ten years. To that end, New Delhi seeks to build up a force structure centered on three aircraft carriers, each of which would form the nucleus of a carrier battle group (CBG).

*IMMS-2015* does not delineate what roles Indian carriers would fulfill during wartime, other than that they will be a key contributor to *sea control*, which is "a central concept around which the Indian Navy will be employed." The

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carrier traditionally has been regarded as a useful platform for this endeavor, as it is essentially a mobile, territorially independent air base from which aircraft can be deployed to fulfill various sea control–related roles. Historically, the three main tasks for which the aircraft carrier has provided significant utility during a conventional war have been (1) attacking the enemy's maritime assets, (2) projecting power ashore, and (3) protecting one's sea lines of communication (SLOCs).

How effective would Indian aircraft carriers be in these areas during a future war with India's strategic rivals? This is a question worth exploring, yet no previous literature has dealt with it explicitly. Moreover, addressing this subject would contribute to the richness of the overall carrier debate that has been going on since the platform's inception in the 1920s.5

To contextualize the issue, an Indo-Pakistani war scenario will be discussed, given the historical enmity between the two South Asian states. <sup>6</sup> The level of hostility is such that Shashank Joshi believes that "India's single most probable military contingency remains a limited war with Pakistan." A series of border clashes occurred in the disputed region of Kashmir between the two nations in 2014–15. More recently, in September 2016, militants ostensibly linked to Pakistan killed twenty soldiers during a raid on a military outpost in Indian-held Kashmir, which led to Indian special forces purportedly crossing the Line of Control to carry out a reprisal attack. Border tensions have continued to simmer since then, so conflict between India and Pakistan cannot be ruled out. Such a confrontation, should it take place, is highly likely to be a conventional one, given that both sides have nuclear weapons and crossing the atomic Rubicon—even to use low-yield tactical devices—could escalate the conflict into an utterly ruinous war.

In a notional Indo-Pakistani war, the modest size of Indian carrier wings will give rise to what is known as the "small-deck carrier quandary." In this case, that quandary restricts an Indian carrier's utility for going on the offensive, whether focused at sea or ashore. This dilemma revolves around what proportions of such a ship's relatively small fighter complement—barely two dozen aircraft—should be allotted to defense and to attack. This will be a key consideration for a CBG commander as he faces Islamabad's burgeoning antiaccess/area-denial (A2/AD) complex.

On the other hand, the small-deck carrier conundrum would not be felt as acutely with regard to the SLOC-protection role, as Indian flattops would be able to devote their aircraft mainly to defense. Furthermore, carriers are particularly well suited for this task, as sea-based airpower has a number of operational advantages over its land-based counterpart.

To date, no academic publication has dealt specifically with the likely usefulness of Indian carriers during a possible contingency involving Pakistan. Some journal articles have covered carriers in relation to India in a general sense, but not regarding an Indo-Pakistani scenario per se.9 While a number of works discuss the Indian navy as a whole during a notional war with Pakistan, they do not discuss the functions that carriers would perform. 10 The one academic source that does cover the subject to any significant degree is the book Sea Power and Indian Security, by Rahul Roy-Chaudhury. In a section entitled "An Indo-Pakistani Naval War: A Scenario in the Future," the author alludes to the likely missions of Indian carriers, but he does not assess the ships' likely effectiveness.<sup>11</sup>

What is more, the book was published in 1995, and naval developments in the two decades since then necessitate a fresh look at the issue. There also seems to be a misconception that the Indian aircraft carrier is a potent naval platform solely by virtue of its organic airpower. To illustrate, one commentator states rather sweepingly that INS Vikramaditya's "powerful air wing is capable of executing air superiority, anti-surface, anti-ship and anti-submarine warfare" during a war with Pakistan—without explaining in detail how it would do so. 12 Thus, there exists a lacuna in the existing literature on a key aspect of the Indian navy.

This article therefore seeks to answer the following central research question: How useful would the Indian aircraft carrier be during a hypothetical conflict against Pakistan in the medium and long terms? To address the issue, this article will extrapolate from existing, open-source information to the likely dynamics of Indian carrier operations against Pakistan. The time horizon discussed will extend to 2025. (Going beyond that time frame would not be prudent, as technological developments over the longer term might render conclusions invalid, on the basis of extant dynamics.) While there has been much talk about China's fledgling naval presence in the Indian Ocean, it is unlikely to constitute a genuine strategic threat to New Delhi within the time frame discussed herein, considering Beijing's current preoccupation with its own "back yard" within the so-called first island chain. 13 Limiting the discussion to Pakistan is therefore sound, as the country always has been a clear and present threat in the eyes of India's security managers.

The next section provides current background information on India's aircraft carriers. An assessment of the platform in the offensive mode (attacking sea- and land-based targets) with reference to the small-deck carrier quandary follows, succeeded by an analysis of the use of Indian carriers for SLOC defense. The final section puts forth a number of recommendations for Indian naval planners, followed by concluding remarks.

#### INDIA'S AIRCRAFT CARRIERS

India has only a single carrier, INS Vikramaditya, in active service today, with another, INS Vikrant, scheduled to be commissioned in late 2018.14 The table below captures the key features of these two vessels, both of which are classified as "small-deck" carriers by virtue of their size and aircraft complement.<sup>15</sup>

During operations, each carrier and its several destroyer and frigate consorts constitute a CBG, and one or two such entities make up a carrier task force (CTF). *IMMS-2015* states that each CTF is "a self-supporting force capable of undertaking the full range of operational tasks in all dimensions . . . [including] Anti-Air Warfare (AAW), Anti-Surface Warfare (ASuW), ASW [antisubmarine warfare], Maritime Strike, [and] Electronic Warfare (EW)," adding that "[d]edicated forces

#### TABLE 1

Name	Displacement	Length	Flight-Deck Configuration	Air Wing
Vikramaditya	44,500 tons	283 m	STOBAR	Up to twenty-four MiG- 29K attack fighters and six ASW and AEW helicopters <sup>a</sup>
Vikrant	40,000 tons	262 m	STOBAR	Around thirty aircraft, comprising MiG-29Ks and ASW and AEW helicopters <sup>b</sup>

- AEW = airborne early warning; ASW = antisubmarine warfare; STOBAR = short takeoff but arrested recovery.
  a. R. Sukumaran, "Operationalising the *Gorshkov*: An Appraisal," *Strategic Analysis* 28, no. 1 (2004), p. 40.
  b. "Vikrant-Class Indigenous Aircraft Carrier (IAC)."

may be attached to the CTF as per mission requirements, such as for conduct of Expeditionary, Out-of-Area, or Amphibious Operations." 16 The key question is as follows: If India were to have a conflict with Pakistan in the 2020s, how could Vikrant and Vikramaditya contribute to the war effort?

Although the 2015 maritime strategy devotes an entire chapter to war fighting, it is not clear on the specifics of Indian carriers' role in a conflict, other than that they are to wrest sea control from the adversary. 17 The same can be said about earlier maritime strategic documents, such as the 2009 maritime doctrine and the 2007 predecessor to IMMS-2015. 18

A retired Pakistani naval officer believes that implementation of the Cold Start doctrine, which was devised specifically to deal with India's western neighbor, would see the Indian navy taking a forward posture and imposing a distant blockade of Pakistani ports.<sup>19</sup> Similarly, Roy-Chaudhury opines that an Indo-Pakistani conflict is likely to see CBGs attacking the enemy's naval forces, striking at military-economic targets inland, interdicting the enemy's SLOCs, and defending friendly merchant shipping.<sup>20</sup> The first three functions involve Indian CBGs operating in an offensive mode—which brings the small-deck carrier quandary to the fore.

### THE SMALL-DECK CARRIER QUANDARY AND ITS IMPACT ON OFFENSIVE MISSIONS

Studies have been conducted on the American large-deck carrier and the capabilities of its relatively large (seventy-odd) aircraft complement. Dean Mathew maintains that

a near majority of the [American carrier] air wing gets tied down with the compulsions of self-protection. The same logic extended to the case of a medium carrier (20,000 to 40,000 tons and 20 to 35 aircraft) . . . will point towards a worse situation. ... Hence, once that minimum force required for the various tasks of self-defence is subtracted, there will not be anything substantial left over in the air wing for "true carrier missions." It must also be mentioned that these predictions assume a near 100 percent availability of the air wing and optimal management of the launch/retrieve windows, which is very unlikely in a war.<sup>21</sup>

Therein lies the dilemma that small-deck carriers face: how to juggle their already limited complement of planes between offensive and defensive purposes. The raison d'être of the aircraft carrier is its air wing, and the latter's size dictates the operations the vessel can execute. Force projection, whether against land or maritime targets, is one of the key doctrinal roles of the carrier, and being able to carry out strike missions is thus the vessel's sine qua non. However, carriers, even small-deck flattops such as Vikrant and Vikramaditya, are large, multibilliondollar platforms, and thus protecting them would be of utmost importance to commanders. INS Vikrant and Vikramaditya are both in the forty-thousand-tondisplacement category. Furthermore, Vikrant is slated to cost over U.S.\$2.2 billion, while the cost of refitting Vikramaditya, currently the Indian navy's flagship, is about U.S.\$2.9 billion.<sup>22</sup> In view of the carrier's capital-ship status and hefty price tag, as well as its symbolizing of national power, protecting such ships from enemy threats would be critical, and a good portion of their aircraft complements invariably would be dedicated to this.

The challenge thus is for the CBG leadership to strike a judicious balance between offense and defense—an uphill task. Bearing in mind the threats that modern A2/AD systems present, how likely would a commander be to set aside more aircraft for offensive purposes—and risk having a crown jewel of his navy attacked and hit? Nevertheless, setting aside too many aircraft for defense adds credence to the contention of various carrier critics that the ship and its escorts are a "self-licking ice cream cone"—that is, an entity that exists solely to sustain itself.<sup>23</sup> The CBG leadership hence would be placed in a catch-22 situation: allocate more fighters to strike missions, and the task force's susceptibility to aerial threats increases; conversely, set aside more aircraft for defense, and the carrier's ability to project power declines. Having a sizable air wing on the ship would mitigate this dilemma, but neither Vikramaditya nor Vikrant does. After all, each of them can carry only about twenty fixed-wing aircraft, and at least half of those invariably will be assigned to provide fleet air defense, leaving not even a dozen available for strike duties.

The operational history of light carriers bears this out. To illustrate, of the fortytwo Harrier jets deployed on HMS Hermes and Invincible during the Falklands War, twenty-eight—a substantial two-thirds—had fleet air defense as their primary role.<sup>24</sup> Just as tellingly, of the 1,300-odd total sorties that Harriers flew during the Falklands conflict, about 83 percent of them were for combat air patrol.<sup>25</sup>

Matters are not helped by the fact that less than 100 percent of any air wing will be available for service. In fact, one informed observer of naval matters contends that around 80 percent of a carrier's air wing is mission capable at any time.26 Assuming this to be true, twenty or fewer of the fighter jets aboard Vikramaditya or Vikrant will be flyable. It bears consideration that a recent scathing report revealed that some 21 to 47 percent of INS Vikramaditya's MiG-29Ks were nonoperational.<sup>27</sup> Needless to say, such a low serviceability rate would have a tremendous impact on carrier operations, especially during combat, and India would do well to remedy this problem promptly and decisively. In any case, an Indian carrier's small fighter constituent means that if it were to attempt to partake in operations against an adversary with credible A2/AD capabilities, the vessel would be hard-pressed to protect itself, let alone project power.

Therefore, it is doubtful that any attack force launched from an Indian carrier would pack a significant punch. With aircraft available for strike duties barely numbering into the double digits, the Indian carrier simply cannot deliver a substantial "pulse" of combat power against its adversary. Given that the pulse an American supercarrier delivers with a full deck-load launch of over forty fighters may not constitute enough combat power, a big question mark hovers over the effects the Indian small-deck carrier could achieve with its meager strike packages.<sup>28</sup>

In addition, a typical strike package, besides the main attack component, usually comprises elements filling the roles of achieving air superiority and suppressing enemy air defenses. A notional strike force from Vikramaditya will consist solely of MiG-29Ks, and hence either it must devote its assets solely to the two aforementioned supporting roles or the attacking aircraft must give over a number of their hard points to carry air-to-air/antiradiation missiles, or electronic countermeasures pods, or both. Either choice would reduce the ordnance that could be brought to bear on the enemy. Critics may contend that mass is not needed in the current age of precision-guided munitions, but this argument ignores the fact that it may take saturation attacks to overcome modern airdefense systems.<sup>29</sup>

Making matters worse is the limited performance of Indian carrier planes. Both the Vikramaditya and Vikrant platforms are configured for short takeoff but arrested recovery (STOBAR), so can launch aircraft only via their ski jumps. This point is crucial, as planes taking off in this manner must carry less ordnance, fuel, or both. Notably, the mainstay MiG-29K has a relatively short combat radius of about 850 kilometers if it flies on internal fuel alone. 30 That figure could be increased to 1,300 km with external fuel tanks, but this too reduces the number of hard points available for ordnance.<sup>31</sup> During the Falklands War, the danger posed by Argentina's Super Étendards armed with Exocet antiship cruise missiles (ASCMs) resulted in the two British STOBAR-configured carriers being deployed far to the east of the Falklands. This reduced Britain's Harrier jets' payloads and their loiter time in the combat zone. 32 A similar situation vis-à-vis Indian carriers is likely to ensue in an Indo-Pakistani conflict, considering Islamabad's burgeoning access-denial capabilities (which will be delineated below), that undoubtedly would dilute the effectiveness of Indian carrier airpower. In summation, a typical strike package launched from an Indian carrier not only would be small in size but would have relatively limited combat radius and pack only a modest combat punch.

Operating Vikramaditya and Vikrant together would not alleviate the abovementioned limitations to a significant degree. Walter C. Ladwig III notes that the offensive capability of such a combined entity would not match even that of the French small-deck carrier Charles de Gaulle, let alone that of an American supercarrier.<sup>33</sup> Indeed, he believes that New Delhi's decision to build *Vikrant* and Vishal indigenously "suggests India places a higher priority on enhancing domestic shipbuilding capacity than immediately acquiring naval airpower projection capability."<sup>34</sup> Moreover, having the two carriers available for service at the same time is not a given. India needs to have at least three flattops to ensure that two are operationally ready at any one time, and this would not be practicable until INS Vishal enters service, projected for the mid-2020s. 35 Vishal, with its fifty to sixty planes on board, could mitigate the small-deck carrier problem to some extent by sailing with one or more of its predecessors. Joshi compared the purported daily sortie-generation rate of a Vikramaditya-Vikrant task force with that accomplished during prior combat operations and hypothesized that such a force would be capable of delivering decent firepower. To illustrate, he argues that the number of sorties this task force supposedly could launch is comparable to that of the Indian air force (IAF) during the 1999 Kargil War.<sup>36</sup>

This argument is contentious. Land-based planes tend to accomplish higher numbers of sorties than carrier-based ones. Whether the carrier-based planes could achieve what Joshi asserts also is open to question, as Indian carriers have never partaken in operations against a near-peer opponent such as Pakistan.<sup>37</sup> The idea of deploying carriers together surfaces another conundrum, which naval commanders have faced since World War II: whether to disperse or concentrate these high-value units. While concentration increases combat power, it also raises the issue of whether "too many eggs are placed in one basket," thereby handing the tactical initiative to the adversary.<sup>38</sup>

With these considerations in mind, it arguably would be foolhardy for India to use its carriers to seek "decisive military victory," as IMMS-2015 states, against Pakistan during the initial stages of a conflict, when Islamabad's A2/AD edifice still would be intact.<sup>39</sup> In any attempt to impose sea control in the northern Arabian Sea and to interdict Pakistani seaborne commerce by enforcing a blockade of major Pakistani maritime nodes, Indian carrier forces would have to devote a portion of their already meager airpower to attacking Pakistani vessels, thereby exacerbating the conundrum alluded to earlier. What is more, Pakistani ships are likely to operate relatively close to their nation's coast, to be protected by Islamabad's considerable access-denial barrier.

At this juncture, it is worth noting that a blockade led by the original Vikrant contributed to New Delhi's success in the 1971 Indo-Pakistani conflict. Carrier aircraft provided the surveillance capabilities that enabled detection of enemy ships from a distance, as well as the antisurface capabilities to interdict these vessels. In addition, naval aircraft destroyed riverine craft and bridges across strategic rivers, which prevented Pakistani troops from reaching the Bay of Bengal for an evacuation. 40 However, notwithstanding the success of the Vikrant task force, it must be noted that its operations took place in an area in which only insignificant Pakistani forces were available to contest Indian naval dominance. The aerial threat was limited, as the Pakistani air force had to contend with its Indian counterpart. 41 And the Pakistani submarine sent to attack Vikrant was sunk early in the conflict. Had this not been the case, Vikrant might have found its work much more difficult and its contribution to the war effort diluted. In a future conflict with Pakistan, such virtually uncontested Indian operations against Pakistan's maritime assets might not be the order of the day.

Indian carriers inevitably would invite attacks from Islamabad's A2/AD platforms during a war. Aircraft and submarines are the most likely means by which Pakistan would attack Indian forces at sea. To be sure, the Pakistani navy surface combatant force, with its various frigates and patrol craft, is not insignificant, but such units are neither as fast in response as aircraft nor as stealthy as submarines.42

Most experts argue that Pakistan's undersea capabilities are particularly ominous. 43 Diesel-electric submarines (SSKs), such as Pakistan's two Hashmats and the three newer Khalids, can operate virtually undetectably, thereby representing a grave threat to surface forces. However, this is provided the submarine manages to detect and track its target in the first place. Owing to their limited speed, SSKs will act essentially as mobile minefields, and in this capacity it will be a tall order for Pakistani submarines even to find the Indian CBG, unless cued exogenously. This is because the northern Arabian Sea is a vast area for a few relatively slowmoving vessels to cover. While cues provided by Islamabad's maritime patrol or airborne early warning (AEW) planes certainly might help locate the enemy carrier, communications and coordination between aircraft and a submerged platform tend to be difficult. Furthermore, while Pakistani submarines could lie in wait along the Indian carrier's route, successful positioning is highly contingent on accurate intelligence.

On the other hand, Pakistani aerial antiship capabilities are arguably more ominous for Indian carriers. For one, it is decidedly easier to find and maintain contact with the enemy from the air than from under the waves. Pakistan's military aviation arm has a credible antisurface capability, in the form of a dedicated antiship squadron of Mirage fighters that have a combat radius of about 1,200 km and are armed with the Exocet ASCM. 44 Islamabad also plans to equip its newly acquired JF-17 attack fighters, which have a combat radius of over 1,200 km, with the Chinese CM-400 AKG ASCM, which can hit targets 180-250 km away. 45 Modern ASCMs are difficult to detect and shoot down, even for sophisticated warships such as Kolkata- and Visakhapatnam-class destroyers, which would be part of an Indian carrier force. The introduction of the supersonic and standoff CM-400 AKG into Pakistani service would complicate the protection of an Indian CBG.

While the Indian carrier would be vulnerable to the aforementioned threats while enforcing a blockade of Pakistan, at least it would be free to exploit its mobility to evade detection and attack on the high seas. In contrast, operations against land targets would render Indian carriers even more exposed to attack. First, the relatively short legs of carrier-based aircraft mean that the carrier would have to operate closer to the enemy coastline, making it more vulnerable to A2/ AD threats. Pakistan also can bring more aircraft to bear on an Indian CBG when the group operates nearer the Pakistani coast. Furthermore, the Pakistani submarine threat would be accentuated, as SSKs are harder to detect in waters nearer land. While the carrier could operate farther from land, this would be at the expense of its strike-aircraft payloads.

Hence, the Indian carrier force commander would have to weigh the greater likelihood of taking hits against the utility, if any, of attacking Pakistani targets ashore. As discussed earlier, any such carrier-borne strike package would be relatively limited in size and combat power. Indeed, John Mearsheimer has derided naval bombardment of enemy assets ashore as "pinprick warfare," and this description applies well to any Indian carrier-launched attack on Pakistani land targets.46 Given that one of the traditional rules governing the employment of a fleet is that it should not become "decisively engaged with land forces unless decisively superior," the Indian CBG would be exposing itself to hits, especially should it carry out "first day(s) of war" operations against land targets, when Islamabad's A2/AD complex presumably still would be intact.<sup>47</sup>

Matters are not helped by the ongoing nuclearization of the Pakistani navy in particular, the challenge this may pose regarding Indian naval concentration in the event of war. Islamabad has refused to adopt a no-first-use policy on nuclear weapons, and its navy sees nuclear arms as a means to negate Indian superiority at sea. <sup>48</sup> Pakistan's naval nuclearization and its lowering of the threshold for use of nuclear weapons could face Indian naval planners with another conundrum. Should they concentrate their ships, as conventional naval doctrine dictates? Or should they disperse them, so a Pakistani tactical nuclear weapon would not wipe out, or at least incapacitate, an entire Indian naval task force in a single swoop? <sup>49</sup> Choosing the first option would protect the Indian CBG better against Pakistan's A2/AD threats; choosing the second option would protect better against the nuclear threat.

With that said, various observers have maintained that long-range missile strikes might be one way to kick down the proverbial access-denial door before forces less able to tolerate A2/AD threats, such as carriers, are deployed to the area of operations. 50 This argument is applicable to the American carrier strike group (CSG), given that its Ticonderoga- and Arleigh Burke-class surface warships can fire Tomahawk cruise missiles at targets nine hundred nautical miles away.<sup>51</sup> In stark contrast, U.S. carrier strike fighters, such as the F/A-18E/F Super Hornet currently in service and the upcoming F-35C Lightning, have a combat radius of five to six hundred nautical miles.<sup>52</sup> With regard to the kicking-downof-the-A2/AD-door argument, the American CSG can use its Tomahawks to breach enemy defenses during the opening stages of a conflict. The American carrier therefore can maintain a greater distance between itself and the enemy, then move closer in to deploy its aircraft only when it is safer to do so. The Indian CBG, however, cannot hew to this concept of operations in the near future, as its escort ships are armed with the relatively short-range BrahMos cruise missile. Indian carrier aircraft far outrange this weapon's 290 km striking reach.<sup>53</sup> The mainstay of the Indian submarine force is its Kilo-class platforms, and they too lack a long-range missile capability equivalent to that of their Russian counterparts.<sup>54</sup> Even if they were to have such a capability, their lack of a vertical launch system (VLS) precludes the launching of the mass missile attacks needed to overwhelm enemy air defenses.55

## WHITHER THE OFFENSIVE UTILITY OF THE INDIAN CARRIER FORCE?

Going forward, with Indian CBGs hamstrung by various operational limitations, is there an offensive role for them to play during a high-intensity conflict? <sup>56</sup> Perhaps not as "first day(s) of war" platforms, when the adversary's access-denial capabilities still would be strong. However, the CBG may have a part—albeit a supporting one, at best—once the A2/AD barrier has been breached. As Vice

Admiral Pradeep Chauhan (Ret.), a former commanding officer of the decommissioned carrier Viraat, once said: "[In the event of a war,] Indian sea control would complicate Pakistan's defence dilemma. In addition to defending 2,900odd kilometers of land border, Pakistan would then have to defend an additional 1,046 kilometers of coastal boundary."57

Nonetheless, Indian sea control (or at least a working level of it) in the northern Arabian Sea remains contingent on weakening the enemy's A2/AD edifice; only after this was attained could Indian carrier forces play a more prominent role in the war. They then could exploit their mobility to carry out the hit-andrun attacks that would complicate Pakistani defense plans ashore. Indeed, mobility is one of the key advantages of carrier aviation over its land-based counterpart. As Andrew T. Ross and James M. Sandison put it, in history "[t]he mobility of aircraft carriers could frequently place them in positions to menace many different targets at once, whereas there was little of this ambiguity surrounding the use of land-based aircraft, as they flew from known fixed bases. So, provided the enemy knew what types of aircraft were stationed there, he would know what range of targets could be menaced and attempt to take adequate precautions."58 While Indian carrier-borne raids against shore targets would have limited utility (as discussed earlier), such operations could exert a strategic effect, as Islamabad might have to divert forces from other fronts to defend against seaborne threats. It is worth noting that, deployed in this "cavalry" role, the Indian carrier would play a merely supporting role in the overall scheme of things.<sup>39</sup>

Hence, it may be time for New Delhi to rethink the centrality of the "queen of the waves" in its naval planning. It bears consideration that before World War II, U.S. naval planners deployed carriers merely to support the battle fleet: naval aircraft were to search for enemy battleships, attacking them only if a good opportunity arose, so as to weaken them for one's own battle fleet to deliver the coup de grâce. However, over the course of World War II, the flattop came to upstage the dreadnought, and the former has been the primus inter pares of warships ever since, with surface combatants largely acting as its consorts. However, some commentators have argued that the advent of the long-range Tomahawk cruise missile and its deployment on the American cruiser/destroyer force could upset the current carrier-surface ship nexus in the U.S. Navy. If cruise missile shooters were to overshadow carriers during an actual conflict, the relationship will have come full circle since World War II.<sup>60</sup> If this dynamic materializes, during the initial stages of a high-intensity conflict the carrier will act only as an enabler—in the surveillance, the air-superiority, and other supporting roles—to enable the missile shooters to breach the A2/AD door.

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Missile-armed platforms seem to be the way ahead in maritime warfare, as they are highly suited for the access-generating role. As Andrew F. Krepinevich puts it, aircraft carriers will "run a high risk of detection and damage or destruction in a mature maritime precision-strike regime" characterized by robust A2/AD edifices, adding that "[u]nder these conditions, smaller surface platforms with longer-range, survivable strike elements may be attractive for a fleet in a mature maritime precision-strike regime." Indian naval strategists would do well to bear that in mind and make such platforms more central. While one scholar makes the case for unmanned systems to alleviate India's A2/AD problem, just as important is the need for more, and deadlier, missile shooters.

However, the Indian navy currently does not possess a long-range cruise missile like the Tomahawk. (See table 2.) As discussed earlier, the much-vaunted BrahMos missile can hit targets at most 290 km away—well within the Pakistani access-denial bubble. (India's counter-A2/AD dilemma would be mitigated should the six-hundred-kilometer-range BrahMos be introduced.)<sup>63</sup> To compound matters, currently only surface combatants in the Indian navy are armed with cruise missiles, and these are the BrahMos. New Delhi would do well to incorporate existing missiles with a greater striking reach, such as the Dhanush (range: 750 km) or equip its existing cruise missile–capable assets with new ones, such as the Nirbhay (range: one thousand kilometers), currently under development.<sup>64</sup> It also would be an astute move for India to introduce cruise missiles onto

**TABLE 2** 

Name	Range	Speed	Warhead	Launch Platform(s) in the Indian Navy	Status
BrahMos ASCM/ LACM <sup>a</sup>	290 km >400 km (extended-range variant)	Mach 3	Conventional, 200–300 kg	Surface ships	In service (submarine- launched version successfully test-fired, air-launched version being tested)
3M-54 Club ASCM <sup>b</sup>	220 km	Mach 2.9	Conventional, 500 kg	Submarines, surface ships	In service
KH-35 ASCM <sup>c</sup>	130 km	Mach 0.8	Conventional, 145 kg	Surface ships, aircraft	In service
Nirbhay ASCM/ LACM <sup>d</sup>	1,000 km	Mach 0.6-0.7	Conventional, 450 kg (nuclear capable)	Possibly surface ships	Under development

#### Notes

ASCM = antiship cruise missile; LACM = land-attack cruise missile

d. "Nirbhay."

a. "BrahMos Supersonic Cruise Missile."

b. "3M-54 Klub/SS-N-27," GlobalSecurity.org

c. "Uran-E," Rosoboronexport, roe.ru/.

its submarines, which arguably are the ideal counter-A2/AD platforms, owing to their stealth characteristics.

#### INDIAN CARRIERS FOR SLOC DEFENSE

While Indian carriers may not be suitable for taking the fight to Pakistan, the fit is better in the trade-defense role. This mission would not require their meager aircraft complements to be split between attack and force protection.<sup>65</sup>

New Delhi depends heavily on seaborne trade for its economic well-being, and Islamabad therefore would do well to target Indian SLOCs during a conflict.<sup>66</sup> Over 90 percent of India's global trade by volume and more than 70 percent by value is seaborne.<sup>67</sup> Most notably, some 75 percent of New Delhi's crude oil needs are imported, of which 58 percent are obtained from Middle Eastern, particularly Gulf, sources, according to the U.S. Energy Information Administration.<sup>68</sup>

The SLOCs linking these sources to India sit astride key Pakistani naval nodes in the northern Arabian Sea, which is the maritime domain where combat most likely would take place in another major Indo-Pakistani war. There are three such nodes: the Pakistani navy's headquarters in Karachi; the Jinnah submarine base in Ormara, 240 km west of Karachi; and Gwadar, another 215 km farther west. <sup>69</sup> In fact, Gwadar is practically coterminous with the entrance to the Gulf of Oman, through which much of India's oil imports pass. <sup>70</sup> While there has been much talk about India imposing a maritime blockade on Pakistan, the aforementioned geostrategic realities mean that Islamabad actually would be in a better position to do the same to its adversary. Therefore, the Indian military will find it operationally challenging to safeguard its critical Arabian Sea SLOCs in the event of another Indo-Pakistani conflict.

However, a CBG can mitigate this problem, and arguably is the best hedge against the multidimensional threats that Pakistan poses to India-bound commercial shipping. To ameliorate the threat of Pakistani interdiction of Indian SLOCs in the Arabian Sea, a CBG could be deployed to cover the safe passage of the convoys most crucial to the Indian war effort. The carrier's AEW helicopters effectively extend the "eyes" of the convoy much farther out, providing advance warning of the presence of adversarial elements. How far a naval force is able to "see" in the battle space is highly dependent on two key attributes of its AEW assets: combat radius and service ceiling. The Ka-31 AEW helicopter deployed on Indian carriers is decent in the aforementioned areas, with a range of six hundred kilometers and a service ceiling of 3,500 m. Turthermore, the Ka-31's radar has 360-degree azimuthal coverage and can detect aircraft and ships up to 150 km and 200 km away, respectively. Taking their cues from the AEW assets, the carrier's fighters can counter enemy air attacks better. Similarly, carrier-borne Ka-28 ASW helicopters, with an operational reach of up to two hundred kilometers,

would enhance significantly the convoy's defense against hostile submarines by detecting them much farther out. <sup>74</sup> Indeed, an enemy helicopter deploying its dipping sonar is said to be one of the submariner's worst nightmares. <sup>75</sup> All in all, modern submarines and their standoff weaponry necessitate the detection of undersea threats at a considerable distance from friendly forces. As Ross and Sandison put it, "[b] ecause of the huge detection zones involved, it is not a practical solution to rely exclusively on surface escorts for detection, as an enormous number would be required. Fixed-wing and rotary-wing aircraft are the cost-effective means of performing this function, supported by surface escorts where necessary."

Although it can be argued that land-based fighter aircraft also can provide air cover for convoys in the Arabian Sea, this is valid only to a certain extent, as their coverage is limited by their combat radius from their base locations. A CBG would be a superior candidate over land-based planes for providing air cover for, say, a convoy of tankers carrying much-needed oil for India's war machine that was transiting through the Gulf of Oman and the northwestern part of the Arabian Sea. This is because the convoy would be too far away to come under the effective aegis of most India-based aircraft. Indeed, a notional India-bound convoy at the fringes of the Gulf of Oman is some eight to nine hundred kilometers away from the nearest IAF base, at Naliya in western Gujarat State. 77 Only the IAF platform with the longest legs—the Su-30MKI multipurpose fighter, with a useful combat radius of up to a thousand kilometers—can cover that distance comfortably, and even this assumes that the Su-30MKIs are operating from Naliya and are flying unopposed in a straight line.<sup>78</sup> Moreover, while the Su-30MKI is the most numerous tactical aircraft in the IAF inventory, there still are only about 230 of them, and a significant portion of them would be deployed in other roles against Pakistan.<sup>79</sup> Although the range of land-based planes can be extended via midair refueling, tanker aircraft are essentially defenseless, so would need escorts —which would divert yet more assets from other missions. Any Indian navy P-8I Poseidon maritime patrol aircraft deployed for submarine-hunting duties in defense of a convoy are similarly vulnerable to Pakistani fighters—and that is where Indian carrier airpower would come in very handy.

In addition, even if long-range, shore-based airpower is available for SLOC defense, its effectiveness could be stymied by a lack of the coordination between the air force and navy. As Arun Prakash puts it, "Any navy which has operated with or tried to orchestrate shore-based tactical air support for naval units will know that the command, control, and communication problems at even slightly extended ranges can be mind-boggling. The consequences of tying down a fleet to operate within shore-based air support range cannot be anything but disastrous." Granted, Prakash was an admiral in the Indian navy, and a carrier aviator at that.

However, his words do have merit, considering that the Indian armed forces still struggle to achieve jointness, despite having taken steps to do so. As Bernard Cole puts it, jointness is "much more a goal than a reality." In the same vein, Joshi observes that "Indian institutions remain very far from the inter-service integration seen in other power-projecting states."82

Sea-based aviation is more suitable for SLOC defense than its land-based counterpart for two additional reasons. First, the loiter time of carrier planes in the area of operations (AO) would be significantly longer, as they need not transit from land bases. 83 Indeed, having a flattop in the AO enables sustained coverage of friendly forces at sea. To illustrate, during World War II carrier aircraft could be back in action within a short period after combat, as the process of refueling, rearming, and aircrew debriefing could take as little as seven minutes.84 In contrast, land-based aircraft would have to make a longer journey back to base after depleting their ordnance and fuel in combat. As a corollary, owing to the longer transit time involved in flying from airfields ashore to the AO, crew fatigue could reduce the combat effectiveness of land-based airpower.<sup>85</sup> To be sure, convoys would be just as vulnerable to the threats delineated earlier; however, the aircraft on board whichever carrier was assigned to convoy protection would be devoted mainly to defense—hence the offense-versus-defense dilemma presented earlier would be less acute. This would increase the survivability of the convoy.

All in all, the defense of Indian convoys in the Arabian Sea—the maritime domain in which combat almost certainly would take place in a conflict with Pakistan—is undertaken best by a CBG with its organic airpower, as the critical western and northern portions of the body of water are, for the most part, better covered by naval than by land-based aircraft. It is noteworthy that this role is akin to that routinely performed by the unglamorous and often overshadowed escort carriers of World War II. During the Battle of the Atlantic, such vessels often were deployed with Allied convoys to fend off attacks from German U-boats and bombers. 86 This conclusion is rather paradoxical, in that it leaves the largest and most expensive platforms in the Indian military arsenal performing lessprestigious defensive duties during a major war. Tellingly, the same could be said about China's carriers. Liaoning and the slightly more capable Type 001A that currently is undergoing sea trials are STOBAR configured, and thus would suffer from the small-deck carrier affliction during a high-intensity fight against a foe of considerable A2/AD capability.<sup>87</sup> Much like Indian carriers, the two Chinese flattops simply do not have a large and capable enough aircraft complement to project force like American supercarriers.<sup>88</sup>

If a fifth Indo-Pakistani war breaks out within the next several years, the Indian aircraft carrier is likely to be of limited usefulness in offensive roles. This is because the small aircraft complement of either *Vikramaditya* or the upcoming *Vikrant* brings to the fore the light-carrier quandary that afflicts Indian carrier forces. If Indian flattops were to be deployed in traditional offensive roles—striking at the enemy's maritime and land targets—they also would be rendered more vulnerable to Pakistan's increasingly potent A2/AD complex. With this complex looming large, would the Indians be even more cautious in their deployment of carriers? Indeed, would the Indians put their carriers totally out of harm's way, like when they deployed *Vikrant* to the Bay of Bengal during the 1971 conflict because of the threat that Pakistani submarines posed in the Arabian Sea?<sup>89</sup> The answer remains to be seen, but—bearing in mind the points raised in this article—it probably is yes.

This article has put forth a number of recommendations that could alleviate the Indian navy's A2/AD problem, such as focusing more on missile-armed platforms. To be sure, moving away from a carrier-centric force would not gain traction with many Indian defense planners, but the alternative—Indian CBGs being rendered less survivable and less combat effective during wartime—is much worse. Militaries are often hidebound entities that resist far-reaching change, and the Indian navy is likely to be no exception. In the light of the challenges that not only could limit severely the utility of India's much-vaunted carrier force but could endanger it as well during a war with a near-peer adversary such as Pakistan, India should do some serious evaluation and consider measures to address the issue.

An observer once described U.S. carriers as "little more than political instruments, not real war fighters." This statement has an element of truth, to the extent that carriers of any nation have not been tested in the crucible of high-end combat since 1945. After all, during the postwar period even the mighty U.S. supercarrier has been deployed only in highly permissive operational milieus against third-rate adversaries that could not contest control of the sea. One also must bear in mind that the aforementioned observer was referring to a platform that is decidedly superior, in terms of capabilities, to its Indian counterpart. Would a similar, or even more hard-hitting, statement be heard in the future in the context of an Indo-Pakistani (or, in the more distant future, a Sino-Indian) naval confrontation? One hopes we will never find out.

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- Kennedy and Harsh V. Pant, "Indian Navy's Maritime Security Strategy: An Assessment," National Maritime Foundation, August 8, 2016, www.maritimeindia.org/.
- 3. Ministry of Defence (Navy) [India], Ensuring Secure Seas, p. 138. While the idea of having a three-carrier fleet is not new, IMMS-2015 is the first official document to delineate such a force.
- 4. One authoritative source defines sea control as "one's ability to use a given part of the ocean/ sea and associated air(space) for military and nonmilitary purposes and to deny the same to the enemy in a time of open hostilities." Milan Vego, Maritime Strategy and Sea Control (Abingdon, U.K.: Routledge, 2016), p. 24; Ministry of Defence (Navy) [India], Ensuring Secure Seas, p. 71.
- 5. The crux of this debate revolves around whether the carrier would be useful, vulnerable, or both in the face of threats such as aircraft and submarines. For a recent academic contribution to the debate, see Ben Wan Beng Ho, "The Combat Utility of the U.S. Fleet Aircraft Carrier in the Post-war Period," Journal of Military and Strategic Studies 16, no. 4 (2016), pp. 67-105.
- 6. It is worth noting that the utility of the CBG extends to scenarios other than that of an Indo-Pakistani war, but such cases lie outside the scope of this article.
- 7. Shashank Joshi, Indian Power Projection: Ambition, Arms and Influence (London: Routledge, 2016), p. 29. For the possible pathways to war, see Christopher Clary, "Deterrence Stability and the Conventional Balance of Forces in South Asia," in Deterrence Stability and Escalation Control in South Asia, ed. Michael Krepon and Julia Thompson (Washington, DC: Stimson, 2013), pp. 138-41.
- 8. Shawn Show, "17 Indian Soldiers Killed in Kashmir: India-Pakistan Tensions Heating Up," The Diplomat, September 19, 2016, available at the diplomat.com/; Shawn Show, "Is India Capable of a Surgical Strike in Pakistan Controlled Kashmir?," The Diplomat, September 30, 2016, available at the diplomat.com/.
- 9. See, for instance, Dean Mathew, "Aircraft Carriers: An Indian Introspection," Strategic Analysis 23, no. 12 (2000), pp. 2135-58, and Gurpreet S. Khurana, "Aircraft Carriers and

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- 11. Rahul Roy-Chaudhury, Sea Power and Indian Security (London: Brassey's, 1995), pp.
- 12. Kyle Mizokami, "If India and Pakistan Went to War: 5 Weapons Pakistan Should Fear," National Interest, August 16, 2014, available at nationalinterest.org/.
- 13. See, for instance, Abhijit Singh, "Decoding China's Military Strategy White Paper: Assessing the Maritime Implications," IDSA Strategic Comments, Institute for Defence Studies and Analyses, June 2, 2015, www.idsa .in/. China, however, has been building up its expeditionary forces and could possess a competent expeditionary posture after 2025. See Oriana Skylar Mastro, "A Global Expeditionary People's Liberation Army: 2025-2030," in The Chinese People's Liberation Army in 2025, ed. Roy Kamphausen and David Lai (Carlisle, PA: U.S. Army War College, 2015), pp. 207-34.
- 14. While *Vikrant* should be commissioned by then, it reportedly will not be combat ready until 2023, when its surface-to-air missile system and Russian aviation complex will be operational. See Rajat Pandit, "India without Aircraft Carrier for 8 Months," Times of India, July 27, 2016, available at timesofindia .indiatimes.com/. India also intends to build a third and much larger carrier, provisionally named Vishal. The 65,000-ton platform with an aircraft complement of fifty to sixty is slated to be delivered in the mid-2020s, but it is anybody's guess when specifically this will be, given that the Vishal program is still in the conceptual stage, and also given India's checkered history of naval shipbuilding.

- 15. In stark contrast, American large-deck carriers of the *Nimitz* and *Ford* classes have displacements of about one hundred thousand tons and air wings of over seventy aircraft apiece.
- 16. Ministry of Defence (Navy) [India], *Ensuring Secure Seas*, p. 162.
- 17. Ibid., pp. 60–75. According to *IMMS-2015*, "[a]ircraft carriers are central to fleet operations and the concept of sea control, as they offer flexibility and versatility of a very high order." Ibid., p. 162.
- 18. Ministry of Defence (Navy) [India], *Indian Maritime Doctrine*, Naval Strategic Publication 1.1 (New Delhi: Indian Navy, 2009), p. 125.
- 19. Muhammad Azam Khan [Cdr., PN (Ret.)], "India's Cold Start Is Too Hot," U.S. Naval Institute *Proceedings* 137/3/1,297 (March 2011), p. 45. For a good overview of the Cold Start doctrine, see Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security* 32, no. 3 (Winter 2007/2008), pp. 158–90.
- 20. Roy-Chaudhury, Sea Power and Indian Security, p. 128. James R. Holmes and his coauthors also believe that in a future showdown with Pakistan the Indian navy will carry out land-attack and maritime-strike missions. James R. Holmes, Andrew C. Winner, and Toshi Yoshihara, Indian Naval Strategy in the Twenty-First Century (New York: Routledge, 2009), p. 151. Similarly, a retired Pakistani naval officer has opined that the Indian navy will provide aerial support for the Indian army's integrated battle groups and blockade Pakistani ports during any cold-start operation; see Khan, "India's Cold Start Is Too Hot," p. 45.
- 21. Mathew, "Aircraft Carriers," p. 2156.
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- 25. Ibid.
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- 27. Vivek Raghuvanshi, "Report: India's Russian-Made MiG-29K Fighters Face Problems," *Defense News*, August 10, 2016, available at www.defensenews.com/.
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- 29. To illustrate, given that the SPADA 2000 surface-to-air missile launcher currently in Pakistani service can track one hundred and engage four targets at any one time, a saturation attack stands a higher chance of overwhelming the defense put up by an entire SPADA 2000 battery. "Spada 2000 Air Defence Missile System, Italy," army-technology .com.
- 30. Joshi, Indian Power Projection, p. 63.
- 31. Ibid. Carrier aircraft generally have shorter "legs" than their land-based counterparts. There is serious concern within the U.S. defense community that the increasing reach of land-based A2/AD capabilities, coupled with the decreasing range of American naval aircraft, threatens the U.S. supercarrier's viability in its force-projection role against near-peer competitors. For a comprehensive discussion of this issue, see Jerry Hendrix, Retreat from Range: The Rise and Fall of Carrier Aviation (Washington, DC: Center for a New American Security, 2015).
- 32. For a definitive account of the aerial and naval campaigns of the Falklands War, see Sandy Woodward [Adm., RN], *One Hundred Days: The Memoirs of the Falklands Battle Group Commander* (Annapolis, MD: U.S. Naval Institute Press, 1992).
- 33. Walter C. Ladwig III, "Drivers of Indian Naval Expansion," in *The Rise of the Indian* Navy: Internal Vulnerabilities, External Challenges, ed. Harsh V. Pant (London: Routledge, 2016), pp. 33–34.
- 34. Ibid., p. 33.

- 35. Rehman notes that India's navy would be hard put to maintain a carrier-centric force while pursuing nuclearization. Iskander Rehman, "Drowning Stability: The Perils of Naval Nuclearization and Brinkmanship in the Indian Ocean," Naval War College Review 65, no. 4 (Autumn 2012), p. 68.
- 36. Joshi, Indian Power Projection, pp. 62-63.
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- 38. Rehman, "Tomorrow or Yesterday's Fleet?," p. 51.
- 39. Ministry of Defence (Navy) [India], Ensuring Secure Seas, p. 61.
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- 41. Ibid., p. 72.
- 42. The Pakistani navy has a total of six frigates and eight patrol craft armed with ASCMs. International Institute of Strategic Studies [hereafter IISS], The Military Balance 2017 (London: Routledge, 2017), p. 321.
- 43. The Pakistani submarine threat will loom even larger when Islamabad receives eight Chinese export-version Yuan-class SSKs over the next decade. See Franz-Stefan Gady, "China to Supply Pakistan with 8 New Stealth Attack Submarines by 2028," The Diplomat, August 30, 2016, available at the diplomat .com/.
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- 46. John J. Mearsheimer, The Tragedy of Great Power Politics, updated ed. (New York: W. W. Norton, 2014), p. 89.
- 47. Robert C. Rubel, "The Future of Aircraft Carriers," Naval War College Review 64, no. 4 (Autumn 2011), p. 17.

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- 49. Ibid., p. 39.
- 50. See, for instance, Ben Wan Beng Ho, "Opinion: It's Time to Rethink U.S. Carrier CONOPS," USNI News, May 24, 2016, news .usni.org/.
- 51. Ibid.
- 52. Ibid.
- 53. "BrahMos Supersonic Cruise Missile," Brah-Mos Aerospace, www.brahmos.com/.
- 54. India's Kilo-class SSKs are armed with the Club cruise missile that can hit targets up to 220 km away. In contrast, Russian Kilos are armed with the Club variant that has a range of over two thousand kilometers.
- 55. Without a VLS, Indian submarines would have to fire missiles from their torpedo tubes. The Kilo, for instance, has six torpedo tubes, which means that the most missiles it can launch at any one time is five, as it is prudent to have at least one torpedo ready for firing should an enemy submarine appear.
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- 63. Dipanjan Roy Chaudhury and Manu Pubby, "MTCR Benefit: India, Russia to Develop 600-km Range Cruise Missiles That Can Cover Entire Pakistan," *Economic Times*, October 19, 2016, economictimes.indiatimes .com/.
- 64. "Nirbhay," *Missile Threat*, missilethreat.csis .org/. The Indian navy also possesses the Dhanush short-range ballistic missile that has an antiship capability, but this weapon currently is not deployed on India's major surface combatants. With a 350 kg warhead, the Dhanush can hit targets a thousand kilometers away. See "Indian Navy Successfully Test Fires Dhanush Missile: All You Need to Know," *India Today*, November 26, 2015, available at indiatoday.intoday.in/.
- 65. Ladwig makes this argument as well, writing that India's decision to acquire medium-sized, rather than large, carriers is suggestive of New Delhi's view that these platforms should make SLOC protection their priority. Ladwig, "Drivers of Indian Naval Expansion," p. 37.
- 66. IMMS-2015 states unequivocally that it places a greater emphasis on "[t]he safety and security of seaborne trade and energy routes, especially in the IOR [Indian Ocean region], considering their effect on global economies and India's national interests." Ministry of Defence (Navy) [India], Ensuring Secure Seas, p. 6.
- 67. Ibid., p. 25.
- "India Continues Developing Its Strategic Petroleum Reserve as Its Oil Imports Grow," U.S. Energy Information Administration, July 19, 2016, www.eia.gov/.
- 69. Rehman, "Tomorrow or Yesterday's Fleet?," p. 41.
- 70. Ibid.

- "Ka-31 Radar Picket Airborne Early Warning (AEW) Helicopter, Russia," airforce-technology .com.
- 72. Ibid.
- 73. To be sure, rotary-wing AEW assets are simply not as capable as their fixed-wing counterparts, but what the Ka-31 offers in terms of sensory coverage is still a profound improvement over shipborne radars, which typically can detect targets only a few dozen kilometers away, owing to Earth's curvature.
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- 83. Khurana, "Aircraft Carriers and India's Naval Doctrine," p. 102.
- 84. Ross and Sandison, A Historical Appreciation of the Contribution of Naval Airpower, p. 65.
- 85. Ibid.
- 86. For a definitive account of this subject, see William T. Y'Blood, *Hunter-Killer: U.S. Escort*

- Carriers in the Battle of the Atlantic (Annapolis, MD: Naval Institute Press, 2012).
- 87. Indian carriers are, however, more vulnerable to A2/AD threats during a high-intensity confrontation compared with their Chinese counterparts owing to geography. Any such conflict involving China most likely will break out over Taiwan, with Chinese carriers operating well within the defensive umbrella provided by land-based airpower from the mainland—the Taiwan Strait separating the two sides spans only 180 km. On the other hand, the entirety of southern Pakistan sits astride the Arabian Sea AO, and any Indian air force assets providing air cover for their brethren at sea would have to grapple with the full gamut of Pakistani resistance along the coast as well as the "tyranny of distance."
- 88. It is believed that the Type 001A carrier can deploy perhaps a handful more aircraft compared with Liaoning's thirty-odd-strong air wing. "What Do We Know (So Far) about
- China's Second Aircraft Carrier?," China-Power, chinapower.csis.org/. Commenting on Liaoning, a number of defense experts contend that it will "confer prestige on a rising great power, help the Chinese military master basic procedures, and project a bit of power [emphasis added]—perhaps especially against the smaller neighbors on the periphery of the South China Sea." Andrew S. Erickson, Abraham M. Denmark, and Gabriel Collins, "Beijing's 'Starter Carrier' and Future Steps: Alternatives and Implications," Naval War College Review 65, no. 1 (Winter 2012), p. 28.
- 89. Mathew, "Aircraft Carriers," p. 2149.
- 90. Quoted in Martin van Creveld, The Age of Airpower (New York: PublicAffairs, 2011),
- 91. One commentator even describes the U.S. supercarrier as a "flat-track bully that dominates an inferior adversary who cannot really fight back." Ho, "The Combat Utility of the U.S. Fleet Aircraft Carrier," p. 82.

### FROM A PRESTIGE FLEET TO THE JEUNE ÉCOLE

French Naval Policy and Strategy under the Second Empire and the Early Third Republic (1852–1914)

Hugues Canuel

he latter half of the mid-nineteenth century was a period of tremendous and continuous naval transformation—much like the current time. In many ways, twenty-first-century politicians and admirals are arguing in a climate of uncertainty reminiscent of that surrounding the debates that took place in those earlier years. As today, authorities then sought to conciliate conflicting views shaped by the rapid introduction of expensive technologies at sea, the rise of new contenders seeking to challenge the dominating naval power through direct competition or asymmetric warfare, and the ongoing competition for funding among military services that could not agree on a common strategy to face different enemies.

These parallels are not a new idea, and several authors have explored this theme in past years, such as renowned British historian Paul M. Kennedy, who

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recently published an updated version of his 1976 classic, *The Rise and Fall of British Naval Mastery*, with a lengthy foreword that links past with present most effectively. Other works often compare the travails of Great Britain then and the United States today, and replace Germany with China as the rising competitor. Much can be gained from the study of this analogy; but it also can be overly reductionist, as others have argued. <sup>2</sup>

It is in this context that the study of France's naval experience during that period, somewhat neglected in the English-language literature in recent years except for Norwegian author Arne Røksund's 2007 volume on the Jeune École, offers an alternative source of relevant insight.<sup>3</sup> Napoleon III proclaimed an egotistical Second Empire in 1852, only to see it go down to humiliating defeat in the Franco-Prussian War of 1870–71. From the ashes of empire arose the Third Republic, but the latter would suffer its own dramatic loss of face as a result of France's last major diplomatic confrontation with Great Britain, the Fashoda crisis of 1898.

Within that time span, France initially proved capable of leveraging the extraordinary technological revolution then under way to assemble a potent naval force, second only to that of its nemesis, the Royal Navy (RN). Even as the French force grew in size and complexity, it often was described as the emperor's "prestige fleet"; without a defined strategy, it seemed unable to contribute to the defense of the nation in 1870. Under the Third Republic, proponents of the Jeune École first formulated a strategy founded on these same technological advances to shape a different fleet, one trumpeted as being capable of undermining Great Britain's superiority at sea through what would be labeled *asymmetry* today. This policy also proved flawed, as the Marine nationale failed to make a difference during the 1898 confrontation on the upper reaches of the Nile River.<sup>4</sup>

The period in question illustrates the requirement for naval policy and strategy to be coordinated closely and founded on a realistic appraisal of a country's security and foreign policy needs; an objective assessment of the technologies available; and the careful acquisition of naval advice whose independence from national politics and party affiliation is preserved, so that enduring political support for a single, long-term shipbuilding program can be secured. This article will show that the naval policy pursued under the Second Empire generated a viable, balanced fleet, but lack of a clearly formulated strategic purpose seemingly left it irrelevant during France's hour of greatest need. The Jeune École then put a narrow strategy ahead of the practical limitations that any viable policy must take into account when funding the building of a fleet. Both approaches failed, leaving a bitter legacy that greatly affected France's ability to leverage sea power to mitigate its difficult position on the eve of the First World War.

First, though, this article must review earlier naval developments, shaped as they were by those same effervescent technological developments at sea and contrasting geopolitical ambitions on land that would continue to affect French naval thought for the remainder of the nineteenth century. In the wake of the Napoleonic Wars, technical achievements and developments on the international scene quickly persuaded the country's leadership of the importance of sea power, but debates over the shape this instrument should take endured through the remainder of the century.

#### FROM ONE EMPEROR TO THE NEXT

French inventors of varied backgrounds often took the lead in developing the technologies that came to revolutionize war at sea in the decades that followed the downfall of Emperor Napoleon I. By far the most transformational element during that early period was the use of steam for propulsion, to escape the vagaries of wind power. In 1824, engineer Jean Baptiste Marestier traveled overseas to study this potent tool and published a monograph that was well ahead of its time, A Memoir on Steamboats of the United States of America. <sup>5</sup> The naval budget of 1826 included funds for building four vessels to experiment with steam propulsion, and France's first successful steam warship, the 910-ton paddle steamer Sphinx, was launched in 1829. Inventor Pierre Sauvage then patented the propeller, whose placement below the waterline at the stern of the vessel alleviated the disadvantages of having large paddle wheels affixed to a ship's sides; the concept was tested with the construction of the dispatch vessel Le Corse in 1843. Such tremendous progress led to the launch of Napoléon in 1850, the first purposebuilt steam battleship in the world and the lead ship of a class of nine such vessels built over the following decade. Napoléon carried ninety guns and used the combination of steam and propeller to reach a speed of fourteen knots (while keeping a sail and rigging as a secondary means of propulsion for economical long-distance cruising).8

In parallel with these technological advances, events on the world scene following the Bourbon Restoration of 1815 convinced France's political leadership of the necessity to rebuild a credible navy. Spikes of instability and low-level conflicts flared up frequently as a result of the slow decay of the Ottoman Empire and of Spain, necessitating intervention by warships to defend French interests in Europe and overseas. A military revolt in Cádiz prompted Paris to dispatch army and naval forces to Spain in 1823 to support the Bourbon king Ferdinand VII, while taking the side of the insurgents against the Ottomans during the Greek War of Independence in 1821–30.9 France maintained naval forces in the Levant throughout these years, even forming a combined fleet with Great Britain and Russia that destroyed a Turkish-Egyptian force anchored in the Bay of Navarino in 1827, the last major naval battle of the sail era. 10 Paris also dispatched naval vessels in 1831 during civil unrest in Portugal and to Ancona, on Italy's Adriatic coast, because of fighting among Italian nationalists, Austrian troops, and the Papal States. 11

Spanish withdrawal from South America and the Caribbean, as well as the degeneration of Ottoman influence in North Africa, led to repeated naval expeditions to tame virulent piracy through the reigns of French kings Charles X (1824-30) and Louis Philippe (1830-48). These often included punitive raids against cities and local potentates who provided safe havens to the pirates.

In the case of Algeria, such raids failed to provide a permanent solution to the threat the Barbary corsairs posed, leading to the occupation of Algiers in 1830 and the eventual annexation of the entire Algerian coast over the course of the following decade. The expedition against Algiers was especially noteworthy, as it constituted the largest amphibious operation conducted during the age of sail. A fleet of thirty-five major warships and three hundred transports (including seven steamships used to tow smaller vessels to shore) landed an expeditionary force of 37,000 men near the coastal town of Sidi Ferruch (now Sidi Fredj) on June 14, 1830. This action, and the effective naval bombardment delivered to support the attack against Algiers two weeks later, as well as the considerable logistical effort required to sustain the expeditionary force from the sea through the following months, showed the impressive level of professionalism and growing reach of La Royale. 12

Such reach was demonstrated further as French explorers continued mapping out the Indian and Pacific Oceans and annexing new possessions along the way, from the Comoros off the eastern coast of Africa to the islands that would become French Polynesia, while securing a foothold in Madagascar and greater access to China through the Treaty of Whampoa in 1845.<sup>13</sup>

Nevertheless, the limits of French sea power in that era were exposed clearly whenever it clashed with British benevolence, as would be demonstrated in 1839 and again in 1840. In the first instance, a French merchant had claimed property damages incurred during the civil unrest that plagued the early years of the Mexican Republic, but failed to obtain compensation. Using this as a casus belli, France dispatched a naval force to occupy Veracruz in December 1838; French ships also enforced a blockade of the ports on the Gulf of Mexico. However, the local authorities still refused to pay compensation. As the crisis dragged into 1839, Great Britain grew concerned about the resulting instability and the true extent of French ambitions in the region. An RN squadron arrived on the scene that March and soon forced a diplomatic resolution through an implied threat to both parties. Mexico blinked first and agreed to pay. This apparent success of France on behalf of its aggrieved citizen proved misleading, as it was British sea power that actually resolved the standoff, while the French squadron would not have been able to resist effectively had London favored Mexico in the dispute.

The limit of French influence was again in evidence the following year, during the so-called Near East crisis of 1840. Although nominally subservient to the Ottoman Empire, Muhammad Ali Pasha had consolidated his personal power over Egypt through the previous decades. He then undertook a military campaign to move into those territories corresponding to today's Israel, Palestine, Lebanon, and Syria. These actions benefited from the support of France, which provided naval and military instructors to the budding Egyptian army and navy in a bid to

grow French influence in the Middle East. This scheme backfired dramatically when Great Britain, Austria, Prussia, and Russia signed the Convention for the Pacification of the Levant (known as the Convention of London) in July 1840 to guarantee the integrity of the Ottoman Empire. When Muhammad Ali refused to recognize the treaty, the European powers dispatched a naval force that blockaded Egypt, neutralized his fleet, and expelled his troops from Syria and Lebanon, leaving him in control of only the province of Acre (Israel and Palestine). 15 With France isolated within the Concert of Europe and unable to mobilize sufficient naval strength to support its Egyptian protégé, Paris could only acquiesce in the fait accompli, despite considerable outcry from the French public.

The thirty years following the Bourbon Restoration thus had witnessed a resurgence of the French navy, a renewal that provided successive French monarchs with a potent instrument that often succeeded in influencing events in Europe and overseas, within the larger framework of Pax Britannica. Nevertheless, the events of 1839 in Mexico and 1840 in the Middle East had shown clearly the limits of that same fleet, particularly in view of Great Britain's continued superiority in traditional ships of the line. The trauma of the Near East crisis gave renewed impetus to those who perceived that fast-evolving technologies should be leveraged to circumvent the Royal Navy's supremacy at sea. 16 Instead of attempting to narrow the gap in terms of the classical sailing man-of-war, France perhaps could initiate new building plans to launch increased numbers of steam-propelled warships that would make the British fleet obsolete at once and allow France to seize the lead.

The proponents of such views came to be called the "Modernists" or the "Materialists." They claimed that material superiority of technical means would trump simple quantity in numbers of ships of the line and those strategic factors that historically had conferred an undue advantage on Great Britain, the island nation, over France, the continental power with exposed coastlines and vulnerable colonies.

This discourse was particularly timely in view of France's frail economy at the time; it was in no condition to subsidize the building of capital ships on a scale that would threaten Britain's numerical lead. The failing monarchy of Louis Philippe actually had to cut naval estimates in 1837 and directed that twenty of the navy's forty ships of the line be kept in reserve, as their timber would stay preserved better ashore on the building ways than afloat. The experiences of 1839 and 1840, though, demonstrated that readying the ships for sea, mustering and training the required crews, and acquiring the necessary stores to support them could not be completed in a timely manner when faced with an unexpected crisis.17

Following the fall of the government of Adolphe Thiers over the Near East crisis, further public outcry led to the convening in 1844 of a special commission to study the use of steam technology at sea. This venue provided great impetus for the Materialists to promote their views, openly seeking "near equality to England in number of ships and superiority in technical skills." The commission endorsed such ambitions and King Louis Philippe agreed to subsidize this plan through a large increase to navy estimates in 1846–47. This led to a "French naval scare" in Great Britain and its rapid construction of new steam warships to remain ahead of France. Description of the Near East Crisis, further East Crisis, further public outcribes a special commission to study the use of steam technology at sea. This venue provided great impetus for the Materialists to promote their views, openly seeking "near equality to England in number of ships and superiority in technical skills."

Although the February 1848 revolution in Paris and the ensuing instability under the short-lived Second Republic impeded the growth of the French navy, important resources continued to be dedicated to the construction of warships, including the previously mentioned *Napoléon*, launched in 1850.<sup>21</sup> By the time Napoleon III proclaimed the Second Empire in December 1852, he already had encouraged the growth of La Royale and gained important support in promoting a modern navy capable of rivaling Great Britain's.<sup>22</sup> It remained to be seen what use France could make of such an instrument as the emperor set about reasserting French influence in Europe and overseas.

### NAVAL DEVELOPMENTS UNDER THE SECOND EMPIRE

Intent on renewing France's imperial glory but aware of the limits of military power for achieving a dominant stature in Europe, Napoleon III embarked on a bold program structured around three pillars.<sup>23</sup>

First, despite the economic recession of the previous decade, France grew prosperous through the 1850s as domestic industries were driven to modernize and leverage new efficiencies gained through the advances of the industrial age. Although he proclaimed an imperial regime, the new monarch was careful to nurture a free economy based largely on the liberal tenets of the time. This made goods from France increasingly competitive on world markets, leading to the development of considerable economic interests overseas as French business acquired larger market shares around the world.<sup>24</sup>

This economic growth paralleled a renewed interest in colonial expansion, the second pillar of the emperor's program. France may have lost its most prized possessions during the Napoleonic Wars but had managed to retain footholds around the periphery of the British Empire and gained new possessions during the following decades, from North Africa to the Pacific. Napoleon III sought further expansion through the 1850s and 1860s, carefully encroaching on those territories that did not involve direct confrontation with other European powers, such as in Southeast Asia and western Africa. Public support for such endeavors grew through these years as successive governments emphasized the community

of interests between the economic gains the Right sought and the noble purpose of France's *mission civilisatrice*, which was more palatable to the Left.

This imperial renaissance required a third pillar: naval forces to protect French territories and interests around the world. Stability on the European continent left the country's land borders momentarily secured, allowing Napoleon III to dedicate much attention to his navy as he sought the next opportunity to demonstrate that France had regained a place of influence within the Concert of Europe. Another crisis related to the decline of the Ottoman Empire provided just that. A seemingly insignificant dispute between France and Russia over the responsibility to be "Protector of the Christians in the Holy Land" left Ottoman leaders equivocating about which of the two countries would retain this nominal title. Tsar Nicholas I used the opportunity simultaneously to challenge the growing influence of France in Constantinople and to raise anew a long-standing demand for access to the Mediterranean through the Turkish Straits. A first ultimatum conveyed from Saint Petersburg in February 1853 demanded the ceding of all provinces between the Danube and the Dardanelles, free access through the straits, and the protection of all Turkish Christian minorities. Confident of the support of the other European powers, the Ottoman rulers ignored this challenge—and the diplomatic crisis led to war.<sup>26</sup>

While England and France did not join the conflict immediately, they were sufficiently concerned about Russian ambitions to dispatch naval forces to the Levant once again. The ships made their way up to Constantinople in a show of force, but Russia was undeterred, having already destroyed the Turkish Black Sea fleet anchored in the Anatolian port of Sinope in November 1853 while Russian armies advanced across the Danube and into eastern Anatolia.<sup>27</sup> Napoleon III grew increasingly strident about an intervention to succor the "sick man of Europe," and Great Britain agreed to join France in declaring war against tsarist Russia in April 1854. Additional naval squadrons were dispatched promptly and expeditionary forces were embarked in British and French transports. Within months, the coalition had secured control of the Black Sea, blockading the Russian squadron in the fortress of Sevastopol on the Crimean Peninsula and repeatedly bombarding the city of Odessa.<sup>28</sup>

After a first foray ashore in June to stop the Russian offensive through Bulgaria, the combined expeditionary force was reembarked and landed in September 1854 to lay siege to Sevastopol itself. The remainder of the land campaign became bogged down, and poor logistics combined with dismal sanitary conditions ashore to inflict a dire cost on the expeditionary force. The reputations of both the French and British armies suffered greatly as a result of their lackluster performance.<sup>29</sup>

Nonetheless, after hostilities came to an end in March 1856, La Royale could boast of several achievements.<sup>30</sup> Napoleon III's navy had acted as an equal to the Royal Navy during several naval and joint operations, from securing command of the Black Sea to transporting an expeditionary force of 28,000 men to the theater of operations, successfully landing it first in Bulgaria and then outside Sevastopol. The French navy was able to supply this force from the sea for two years while keeping the tsarist fleet bottled up in port and providing effective fire support to troops on land. Naval operations also took place along the periphery of the Russian Empire, with smaller squadrons deployed in the Baltic and the Pacific.<sup>31</sup> These operations may not have affected hostilities in Crimea directly, but they did result in Russia dispersing forces that were needed badly on the main front. European politicians and strategists, especially in Great Britain, took note of the French ability to operate large naval forces globally.<sup>32</sup>

The war left the French navy in an enviable position. It was the object of imperial pride for Napoleon III, while political circles and public opinion supported continued investment in the fleet. Increased budgets were approved, allowing naval architects to integrate lessons from the Crimean War into new ship designs that reflected the trinity of steam, the explosive shell, and armor plating. France again took the technical lead and began work on the first oceangoing ironclad, La Gloire.33 The new line of ships that followed was but one element of a balanced force that was funded through the unprecedented naval estimates of 1857. This milestone measure provided for "three fleets: one of battleships to uphold France's position in Europe, one of ships for foreign stations to make her respected abroad, and one of transports and gunboats either to conduct colonial expeditions or to land and support troops in another Crimean War." This program envisioned the building of forty ironclads; twenty armored frigates; ninety corvettes, gunboats, and other auxiliary units; and seventy-five troop transports capable of embarking forty thousand men and twelve thousand horses.<sup>35</sup>

However, this naval renaissance came to naught over the course of the following decade. It remained shaped by preparations for a confrontation with Great Britain. The French navy continued to seek near equality in numbers, superior fighting efficiency, and the bold adoption of every technical innovation at sea to gain even a limited advantage over the Royal Navy. 36 Although France was successful in repeatedly achieving technical superiority in the areas of steam propulsion, naval gunnery, and ship's side armor, each instance only gave rise to another race—which the Royal Navy set about winning. Once Britain's leaders abandoned their affiliation with sail and the government allocated the required funds, the country easily achieved a commanding lead in new construction by the mid-1860s. Even the vainglorious Napoleon III had to admit that maintaining near parity was beyond French means, and the 1857 plan was scaled down in 1863 and again in 1865.<sup>37</sup> As for the fighting efficiency of French sailors over their British counterparts, their grit was never tested during the years of the Second Empire. Although La Royale continued preparing for a decisive engagement with the Royal Navy, this did not come to pass, as a much more dangerous threat took shape on the Continent, making the French navy seemingly irrelevant during the country's hour of greatest need.

#### 1870: NEITHER VICTORIOUS NOR DEFEATED

The French amirauté (admiralty) was ill prepared for the coming war. Focused on the competition with Great Britain and expansion overseas, it had dedicated little intellectual effort to figuring out how to leverage sea power against Prussia. The Marine impériale benefited from an overwhelming preponderance over the fledgling Norddeutsche Bundesmarine (North German Confederation Navy), formed in 1867. France could deploy some four hundred vessels (including thirty-four ironclads) crewed by 28,000 men, while Prussia and its allies could muster only 6,200 sailors manning thirty-four vessels, of which only five could be considered seagoing ironclads.<sup>38</sup>

Such superiority would be of little use, however, unless it could be employed effectively against the enemy, and the French quickly elaborated naval plans to do just that. They sought to defeat ironclads at sea, raid the naval bases at Wilhelmshaven on the North Sea and Kiel in the Baltic, blockade commercial ports and destroy shipping overseas, and land an army corps on the northern coast of the North German Confederation to relieve pressure on the main land front.<sup>39</sup>

Such objectives may have appeared sound at the time, but they were based on flawed assumptions. Once war came, the Confederation Navy stayed in port, denying French admirals the opportunity to destroy enemy capital ships—the ironclads-through battle at sea. Raids against Wilhelmshaven and Kiel were considered, but new technologies such as marine mines and torpedoes launched from shore, combined with formidable coastal batteries, made such expeditions too risky. French ships were more successful in blockading enemy cruisers isolated in neutral ports overseas, but the interdiction of commercial shipping was undermined greatly by France's reluctance to stop those ships that sailed under the red ensign (flown by British merchant vessels), fearing to alienate Great Britain. Lastly, prewar studies had concluded that amphibious operations against the enemy coast could take place only in the Baltic, in view of the extensive shallows along the North Sea shore. Such an expedition, in turn, would require an active alliance with Denmark, or at least its benevolent neutrality—neither of which was forthcoming during the hostilities.<sup>40</sup>

Worst, though, was that all these contingencies presupposed the readiness of the French fleet to undertake such operations at the beginning of hostilities in 1870, but this was not the case. When Prince Otto von Bismarck, ministerpresident of the Kingdom of Prussia and chancellor of the North German Confederation, succeeded in goading Napoleon III into declaring war on July 19, French naval leaders were caught unprepared to launch large-scale operations. Many ships were in refit, while others remained deployed overseas; large numbers of reservists were unavailable, as they already had sailed for the summer Newfoundland fisheries; and orders for the required stocks of coal, food, and other supplies had yet to be fulfilled. These challenges, compounded by the decision to maintain large forces in the Mediterranean to guard transports ferrying troops from Algeria to the métropole despite the obvious absence of a German threat in that theater, directly led to the failure to intercept enemy ironclads returning home that summer after an extensive maintenance period contracted to British firms.41

The French fleet eventually conducted two large-scale demonstrations off the German coast, but they achieved little, and the single naval battle of the war was an inconclusive engagement between two small gunboats (the French Bouvet and the German Meteor) near Cuba in November. 42 As the French army crumbled and Napoleon III surrendered at Sedan, the fleet was ordered back to Cherbourg in September to land its heavy guns for the defense of Paris. This was an inglorious end to the naval war, although French sailors would distinguish themselves ashore in the following months.<sup>43</sup>

### FROM THE SECOND EMPIRE TO THE THIRD REPUBLIC

Following an armistice in January 1871, the French government agreed to the terms of the Treaty of Frankfurt on May 10. The Second Empire already had given way to the Third Republic by then, following a populist coup in September 1870, but the monarchist Adolphe Thiers—the premier who had resigned in the wake of the Near East crisis of 1840—eventually formed a provisional cabinet of conservative, rural, middle-class politicians in February 1871. Priority went to repaying the war indemnity, to put an end to the German occupation.<sup>44</sup>

Meanwhile, a climate of revanchisme quickly seized France, so the military leadership set about rebuilding the French army—and studying the lessons from the preceding conflict. 45 Despite the exceptional performance of the navy's officers and sailors ashore, the service's future and its very raison d'être came under close scrutiny at the time. In the wake of the navy's inability to contribute to the defense of the nation, many denounced the fleet as a mere instrument of imperial prestige and challenged the legitimacy of continued investment in ships. Even Thiers's ministre de la marine, retired admiral Louis Pothuau, lamented that "[a]ll our efforts must be concentrated on land. Indeed, what good will a navy be to us now?"46 This context gave rise to several radical proposals. Some promoted the liquidation of all naval assets except those required for close coastal defense. Others sought to retain just a few sailing ships to train personnel who would be mobilized in the event of war to man a fleet of commerce destroyers improvised from existing merchant vessels.<sup>47</sup>

Nevertheless, Pothuau was able in 1872 to deliver naval estimates along more conservative lines, shaping the Marine nationale for the next two decades. Although the budget was cut dramatically from 210 to 146 million francs and severely curtailed the original building plan of 1857, the program of 1872 still envisioned a fleet of 215 ships—namely, twenty-six ironclad battleships, thirtyfour cruisers, twenty coastal-defense ships, eighteen corvettes, thirty-two gunboats, twenty-five troop transports, and sixty auxiliary vessels.<sup>48</sup> While a pale reflection of Napoleon III's ambition to build a navy of 430 ships, this mix did reflect a remarkable continuity in seeking a balanced force that encompassed units of the line for fleet engagements, cruisers and gunboats for overseas work, and troop transports for amphibious operations. Such a construct was required to pursue the obligations that Minister Pothuau envisioned in 1872: maintain a battle and training fleet at home (the Squadron of Evolutions), defend stations overseas, renew the fleet's material readiness, and sustain schools ashore to continue generating officers and sailors trained in the technical skills that modern warfare required.49

This plan showed some willingness to take into account lessons learned from past conflicts, such as the continued requirement for troop transports that had become evident during the Crimean War, and to acknowledge contemporary practicalities, such as the necessity for a colonial power with worldwide interests to deploy long-range cruisers and smaller gunboats. Nevertheless, most senior officers continued to posit that any future confrontation at sea would take the shape of a Nelsonian engagement between massed fleets in a replay of Trafalgar, regardless of the technical innovations that had occurred since 1805. Some earlier authors—namely, Baron Pierre-Barthélémy Portal (minister for the navy and the colonies, 1818-21) and Vice Admiral Jean-Baptiste Grivel, in the 1830s—had professed their belief in guerre de course (commerce warfare) as a viable alternative to seeking an engagement with the Royal Navy's main battle fleet, but few championed this approach in the early days of the Third Republic.<sup>50</sup>

After the Thiers government relinquished power in 1873, the program of 1872 was pursued haphazardly even as the British navy was gaining strength from the building plans initiated in the 1860s.<sup>51</sup> Meanwhile, Russia as well as Germany and newly unified Italy launched extensive shipbuilding programs that sought to incorporate the latest technological innovations and lessons learned from the recent American Civil War; they all rapidly whittled away at France's advantage in modern warships.<sup>52</sup>

The context was ripe for a new strategy that sought to move beyond the Nelsonian tradition by leveraging technological innovations to allow France to resume its position as an influential continental power even as it faced an array of new opponents at sea. But it remained to be seen who would seize this opportunity.

# THE RISE OF THE JEUNE ÉCOLE . . .

The French Materialists of the 1840s had sought but failed to define a strategy that would shake Great Britain's command of the sea through technological advances. One author eventually commented on the potential for technology to undermine such numerical superiority in a new way, promoting a form of asymmetric warfare and laying the foundation for what would mature into the Jeune École in the following decades. Captain Baron Richild Grivel, son of the previously mentioned Vice Admiral Grivel, in 1869 published an important essay built on two fundamental assertions. First, the French historical experience had shown that great encounters between battle fleets represented a severe danger to the weaker naval power. Second, the French navy did not face one kind of enemy but two, in that in the future it likely would be called on to confront a powerful Great Britain on the one hand and continental powers, weaker in terms of naval strength, on the other. Building a fleet solely dedicated to challenging RN command of the sea was futile. The Marine nationale should be organized to confront the navies of those weaker powers through fleet engagements and undermine England's command of the sea through commerce raiding.<sup>53</sup> Such a proposition was not that revolutionary in and of itself, but it did underline a critical vulnerability for Great Britain, as Arne Røksund covered so well in his 2007 study, The Jeune École: The Strategy of the Weak.

Grivel concluded that, instead of attacking Britain's strongest point—the twenty thousand cannon of the Royal Navy-France should aim for its weak spot-the fifty thousand merchant vessels transporting the riches on which British prosperity depended. He argued that this was a form of warfare in which France would be able to engage for an indefinite period; however, it was not likely that this cruiser warfare would have to last longer than a couple of years, since most certainly it would lead to a substantial rise in insurance rates, and after two or three years no one would entrust goods to British ships. Britain's principal source of national wealth would dry up.54

In the 1870s, this proposal was explored further by another serving naval officer, Captain Théophile Aube, who would rise to the rank of admiral and implement his ideas as ministre de la marine a decade later. He took Grivel's emphasis on commerce warfare one step further by dethroning the ship of the line as the foundation of naval power. He described a future when technological advances would slow down and fleets would mature to a steady state, somewhat akin to the latter part of the age of sail. All naval powers eventually would achieve the same level of technological development and qualitative readiness, reaching a stage in which in any given conflict one fleet's superiority would be obvious solely on the basis of numbers. As the weaker side then would not risk its battleships, the guerre d'escadre (fleet engagement) would be obsolete. 55 Aube was also a fervent colonialist who believed that the strength of nations would depend on their overseas possessions. Hence, while accepting, in the wake of the Franco-Prussian War, the requirement to rebuild the army to secure the country's land borders, he proposed that guerre de course would be key to maintaining access to colonies and severing an enemy's link to such resources overseas, be it a maritime or continental power. This train of thought eventually caused Aube, unlike Grivel, to posit that commerce warfare would constitute the strategy of choice against both superior and inferior naval powers, and that the humble torpedo boat would be the new "capital ship." 56

This approach came to be known as the Jeune École, the "Young School," as its proponents were often those younger officers willing to challenge their seniors who appeared to stand for the status quo and the primacy of the ship of the line. The debate grew through the late 1870s and into the 1880s as most navies, including those of France and Great Britain, acquired torpedo boats and fast cruisers that prioritized speed and quick-firing armament over armor and heavy guns. Advocates of the torpedo boat were encouraged greatly by the initial success of these craft during the Russo-Turkish War of 1877-78, especially when a Russian force conducted the first recorded engagement of enemy vessels with ship-launched, self-propelled torpedoes in January 1877. 57 Further success ensued when two torpedo boats joined France's Far East Squadron, commanded by Admiral Amédée Courbet, then engaged in the Sino-French War of 1884-85.58 The hostilities (resulting from the clash of influence between the two powers over Vietnam) were marked by several engagements in which torpedo boats played some role and inflicted actual damages on modern Chinese ironclads acquired from European yards.

Proponents of the Jeune École seized on these isolated episodes as they took the debate over the future of the French navy to the public. Publicists and radical pamphleteers, such as journalist Gabriel Charmes, built on the academic work of serving and retired officers to vilify the naval hierarchy for the apparent shortcomings of 1870. They also denounced the reluctance of the powers that be to endorse new technologies and fashion a revolutionary doctrine that would support French policies better on the Continent and overseas.<sup>59</sup>

The Concert of Europe had crumbled in the wake of the Franco-Prussian War and Germany's imperial ambitions signaled a renewed scramble for colonies. The race for territories greatly increased tensions between France and its continental neighbors (particularly Germany and Italy), as well as with Great Britain. Public debate in France reached such a crescendo that it again caused a naval scare across the Channel. The British government resigned itself to another round of expensive shipbuilding in 1884—including that of a large number of torpedo boats to fill the gap with France—and in the Naval Defence Act of 1889 announced its intention to maintain a two-power standard. 60

The naval debate in France took on a unique dimension as it became complicated by the political fractures that plagued the Third Republic. During the 1870s, as the presidency passed from Thiers to army marshal Patrice de Mac-Mahon (in power from 1873 to 1879), successive cabinets had grown increasingly conservative and promonarchical. However, the Left ultimately rebounded and gained sufficient seats in the National Assembly to govern for most of the 1880s, engaging in a wide range of reforms that affected all facets of French society.<sup>61</sup> The reformist wave eventually reached the Marine nationale through the assembly's Budget Committee, where republican deputies, led by Étienne Lamy, militated for remodeling the navy's administration, its personnel policies, and eventually its overall strategy. 62 Officers of the Jeune École saw this as an opportunity to promote their views. They allied themselves with radical deputies, passing on position papers and selective information on technological advances, often covertly. Meanwhile, Charmes and other publicists attended meetings of the committee to promote their views. The discourse from the Left became increasingly strident, to the point of identifying the battleship as a symbol of a timorous naval leadership that was repressive of sailors, while painting the torpedo boat as an instrument better suited to promote republican ideas at home and abroad. Senior naval leaders reacted by moving closer to politicians of the Right. 63

Several of the Budget Committee's reforms were implemented under Auguste Gougeard, a retired naval captain with republican views who was appointed minister in 1881.<sup>64</sup> It was under Aube, however, that the Jeune École reached its zenith. *Ministre de la marine* from January 7, 1886, to May 30, 1887, the retired admiral immediately ordered that all work be stopped on the construction of four battleships so as to concentrate on the alternative fleet he had been promoting for the previous fifteen years. He submitted estimates for a renewed "building program that included six large and ten small cruisers, twenty large torpedo boats for use against other torpedo boats, fifty *bateaux-canons*, one hundred regular torpedo boats, and three armored coast-defence ships for use as torpedo boat mother ships." The fleet was redistributed into three groups: the aging battle fleet was concentrated at Toulon, as an offensive force against the growing Italian navy; older torpedo craft and coastal-defense ships were assembled in Cherbourg, as a defensive force covering the Channel against Great Britain and Germany; and commerce-raiding cruisers were based at Brest, to wage guerre de course in the

Atlantic and beyond. In addition, funds were sought for the establishment of a major naval base at Bizerte, Tunisia, as well as a string of coaling stations in the colonies to support those commerce raiders that would deploy around the world in any conflict with Great Britain.

#### ... AND ITS FALL

As the recognized father of the Jeune École, Aube left the department in 1887 with his head high, having done more than anybody else in a very short time to lay the foundations for a renewed fleet. These foundations, though, would crumble almost immediately, leaving the French navy a dysfunctional entity right up to the First World War. This resulted from the practical limitations of torpedo boats, the continued fracture of the French naval leadership along political-affiliation lines, and the hard realities of international relations in the 1890s.

Despite these difficult circumstances, the radicalization of his supporters, their more extravagant claims, and the demonization of those opposed to his ideas, one must recognize Aube's intellectual probity. While dramatically altering the navy's building plans, he ordered the conduct of les grandes manœuvres (large-scale exercises at sea) to test the ability of torpedo boats under realistic conditions and to develop doctrine and tactics for their employment, whereas such issues previously had been confined largely to the realm of the rhetorical. He instructed the senior leadership to draft extensive lessons learned from these exercises, and allowed naval officers who wished to make public their first impressions—positive or negative—to publish them in civilian journals.<sup>66</sup>

Minister Aube first dispatched torpedo boats on a long and arduous transit under rough winter conditions from Cherbourg, Lorient, and Brest in the Atlantic to Toulon in the Mediterranean. Summer maneuvers then were organized to set the torpedo boat fleet against the battleships of the Squadron of Evolutions. Although the government resigned in May of the following year, forcing him from office, Aube already had ordered for the summer of 1887 an even more ambitious exercise—in which groups of torpedo boats would have attempted to intercept a battle fleet traveling from Toulon to Brest—but his successor canceled it. There were no follow-on maneuvers, as objective study of such experiments at sea quickly was distorted to suit both supporters and opponents of the Jeune École along the political lines that were dividing the Marine nationale.<sup>67</sup>

It was admittedly very difficult to analyze the results of such exercises in any case. 68 They seemed to confirm both the potential of the torpedo boat—its ability to use its maneuverability to close the battleship to weapon-engagement range—and its fundamental flaws when compared with larger units better suited for long-range cruising, with better sea-keeping qualities and autonomy beyond the few days for which a torpedo boat realistically could be expected to sustain itself. As well, the maneuvers did not explore fully the potential countermeasures against such new craft, nor did they attempt to determine how torpedo boats could detect and intercept enemy warships beyond their very limited visual range, as the maneuvers had been controlled to ensure contact between opposing fleets.

As successive governments in Paris grew more moderate over the following years, the influence of the Jeune École rapidly waned, but did not disappear altogether. The technology existed, and several of its proponents were now senior officers who still believed the torpedo boat offered some potential for use, on the basis of their interpretation of the 1886 maneuvers. Cabinet instability also greatly complicated the formulation of enduring policies, as no fewer than twenty navy ministers were appointed between December 1887 and February 1906. Each tried to impose his imprimatur on the institution, but seldom was in office long enough to secure lasting reforms.<sup>69</sup>

Meanwhile, the competition for influence in Europe and the race for colonies overseas continued unabated. New coalitions took shape on the Continent to replace the Bismarckian order, and the powers of the Triple Alliance (Germany, Austria-Hungary, and Italy) engaged in sizable shipbuilding programs. The growth of European battle fleets was fueled in part by the teachings of an American sailor and scholar, Captain Alfred Thayer Mahan, who gathered a very large and enthusiastic following in the United States and Europe following the publication in 1890 of his classic, The Influence of Sea Power upon History. 70 This book marked the resurgence of the "historical school" and sought to affirm the primacy of the battleship, a concept immediately endorsed in most European capitals—with the exception of Paris, where controversy continued between the Jeune École and the partisans of the main battle line.

While domestic and international politics grew increasingly complex, the readiness of the French fleet declined. By 1889, eleven older, wooden-hulled, armor-plated ironclads still were part of the battle line, while only one cruiser could achieve a speed of eighteen knots; the others—legacies from the Second Empire shipbuilding program—could maintain fourteen knots at best, well below the capability of other European powers' modern construction. Similar inferiority also applied to the characteristics of endurance, range, gun caliber and rate of fire, and armor strength.<sup>71</sup>

This state of confusion was evident in the landmark program of 1890. Although the measure annulled many of the projects Aube had promoted in 1886 and aimed at responding to Britain's Naval Defence Act of 1889 as well as the threat of the Triple Alliance, it still paid lip service to the Jeune École through an eclectic mix of platforms: twenty-four battleships, thirty-six cruisers, forty high-seas torpedo boats, fifteen coastal-defense ships, 220 smaller torpedo boats, and a foreign-station fleet of thirty-four cruisers. But the construction of ten battleships, forty-five cruisers, and over one hundred torpedo boats over the next decade would have been required to bring the fleet up to such strength—and even this was well beyond the capacity of French shipyards. The incoherence of the plan was obvious, as funds for the development of a naval base at Bizerte; the provision of coaling stations overseas; and the construction of torpedo boat tenders, or mother ships—essential elements for the conduct of commerce warfare overseas and torpedo boat operations beyond the coasts of France—were not included. <sup>72</sup> Such confusion continued in another plan crafted in 1894; in the words of one historian, it intended to make everybody happy, with "a few scout cruisers and some battleships for the admirals and a lot of torpedo craft and some special commerce-raiding cruisers for the Jeune École."73

Great Britain also regained its place as France's most likely enemy in the late 1880s, ranking above even Germany as a result of the ongoing competition for colonies.<sup>74</sup> When France's Captain Jean-Baptiste Marchand reached the isolated post of Fashoda (now Kodok) in southern Sudan in 1898, he soon faced a much larger force under British major general Sir Horatio Herbert Kitchener, and France and Great Britain prepared for war.<sup>75</sup>

Had the confrontation turned into an armed clash on the shores of the White Nile, the final decision likely would have been determined at sea. The British strategy would have leveraged an overwhelming advantage in modern battleships and cruisers simultaneously to annihilate the aging French battle fleet in the Mediterranean, had it dared to come out; intercept and destroy any expeditionary force sent from the *métropole* to Africa; blockade France's ports; destroy the country's commercial shipping; and mop up isolated French colonies.

In return, even under the most optimistic prognosis, while the Marine nationale could have inflicted damage on those British ships blockading French ports close to shore and undertaken a campaign of commerce warfare overseas, the latter would not have exercised a real impact until well after the face-off at Fashoda had concluded. As for French torpedo boats, they could have conducted small-scale raids against the coasts of England, but these actions likely would not have threatened British ability to sustain forces on the upper Nile through Egypt.

Unable to support Captain Marchand in Fashoda, and fully conscious of the Royal Navy's superiority in terms of numbers, matériel, and strategic disposition, France could only accept a humiliating diplomatic retreat. As Germany's Kaiser Wilhelm II reportedly commented, "Poor France. She acknowledges herself beaten without a shot having been fired. That is abdication on the sea. They have not read their Mahan!" France withdrew its forces from Sudan, and Paris and London agreed that the watersheds of the Congo and Nile Rivers henceforth would divide their countries' respective spheres of influence.<sup>77</sup>

There followed a period of intellectual introspection. The Jeune École rapidly lost ground, leading to the appointment of Jean Louis de Lanessan as minister in 1899 and the promulgation of the 1900 shipbuilding program, in which the bigship navy once again came to the fore. The measure mandated the construction of a first tranche of six modern battleships and five armored cruisers over the course of the following eight years.<sup>78</sup>

Lanessan did not deny the importance of smaller, faster cruisers and torpedo boats for specific tasks, and he promoted the establishment of "flying squadrons" of fast armored cruisers in the Atlantic and the Mediterranean to support commerce raiders breaking out of French ports during an enemy blockade. He also encouraged the growth of a fledgling submarine capability—the 1900 program included requirements for twenty-six of the vessels, along with twenty-eight destroyers and 112 torpedo boats.<sup>79</sup>

However, Lanessan's promotion of a balanced fleet centered on the battleship took the navy back toward the time of the Second Empire, when it had cultivated the ability to challenge any other navy at sea. In the words of historian Arne Røksund, "Lanessan's insistence on organizing the French Navy for a possible conflict with Great Britain was, however, not solely based on threat assessments. He pushed the argument one step further. He insisted that by using the most advanced and powerful navy of the world as a standard against which to measure itself, the French Navy would have nothing to fear from the navies of the Triple Alliance."80

## FROM FASHODA THROUGH THE FIRST WORLD WAR

Fashoda did not mark the final passing of the Jeune École in France. Indeed, a more left-leaning cabinet came to power in 1902 and the radical Camille Pelletan was installed as ministre de la marine. Until the end of his tour in office in 1905, he canceled orders for large ships and asked for more torpedo boats.  $^{81}$  The fracture of the naval officer corps into deeply resentful factions whose members sought to sabotage each other's careers and who brought their conflicting views to the public also continued into the decades leading to the First World War.<sup>82</sup> Worse, even though Pelletan's successor, Gaston Thomson, reinstituted the fundamentals of the 1900 program, French shipbuilding had fallen behind in the naval arms race among the other European powers and the United States, which was proceeding at full speed. Then, even as French contractors struggled to deliver the ships ordered in 1900, Great Britain fundamentally revolutionized naval warfare by launching the "all big gun" Dreadnought in 1906. France ordered its first equivalent only in 1910.  $^{83}$ 

This confused state of affairs would leave France by 1914 with an inferior fleet that included only four dreadnoughts, compared with thirty-one for the Royal Navy, twenty-one for Germany, four each for Italy and Austria, seven for Russia, and nine for the United States. The remainder of the French fleet amounted to an unsystematic assembly of disparate classes of ships limited in their ability to cruise and fight at sea as coherent units. Again France's navy made only a limited contribution to a war, even as the nation was waging a fight to the end on the western front.84

Despite such strategic confusion at sea, naval policy eventually matured as a reflection of a more realistic appraisal of the country's security and foreign policy needs, an objective assessment of the available technologies, and independence from the prevailing party affiliation so as to secure enduring political support. Accepting peaceful coexistence with Great Britain after centuries of intermittent conflict and relentless rivalry, France agreed to the terms of the Entente Cordiale in April 1904.85 The Russo-Japanese War of 1904–1905 seemed to confirm the continued dominance of the battleship, especially after the Nelsonian confrontation at Tsushima. 86 The importance of the battle fleet and the requirement for interoperability with the Royal Navy came to the fore when France, with active support from England, handily won its diplomatic confrontation with Germany during the First Moroccan Crisis over the status of Tangier in 1905-1906 and the Second Moroccan Crisis over Agadir in 1911. 87 Such developments led to the Anglo-French Naval Convention of 1912, whereby the two powers agreed to a division of labor at sea. While Britain concentrated its fleet in the North Sea and guaranteed the French coast against naval attacks from Germany, France based its main fleet in the Mediterranean and assumed responsibility for the defense of British interests in the region, including the Suez Canal.<sup>88</sup>

France supported this commitment with an ambitious shipbuilding plan that the National Assembly approved in 1912. That program envisioned the construction by 1920 of twenty-eight dreadnought battleships, ten éclaireurs d'escadre (battle cruisers), fifty-two torpilleurs d'escadre (destroyers), ninety-four submarines, and ten bâtiments pour stations lointaines (unarmored cruisers for service overseas). 89 France ran out of time for delivering this balanced fleet prior to the German offensive of August 1914, but the precedent had been set and a focused shipbuilding effort resumed after the First World War.

Wartime operations at sea did not negate all the precepts that the Jeune École had put forward during the ironclad era. As naval historian Theodore Ropp notes in his masterful study The Development of a Modern Navy: French Naval Policy 1871-1904, Admiral Aube had predicted—quite presciently, in an 1882 article—the course of a future war, elaborating that (1) the weaker fleet would refuse combat and remain in port, (2) the stronger one also would remain in port, owing to a fear of torpedoes, (3) and the only real activity at sea would be guerre de course, (4) under which offensive actions against merchant shipping would be merciless. Ropp argues that "it is possible to view the events of the war of 1914–18 under exactly those four points."90 Jutland and the Dardanelles notwithstanding, the Hochseeflotte (German High Seas Fleet) and the British Grand Fleet stuck to their bases, one as a "risk fleet" in Wilhelmshaven, the other moored in Scapa Flow to preserve its numerical superiority. The torpedo finally came into its own as a strategic weapon when married with the "submersible torpedo boat," which Germany unleashed in a campaign of unrestricted submarine warfare.

Aube and his contemporaries were right in their intuition that technology could provide for the rise of a form of asymmetric warfare that would benefit the weaker navy, threatening the supremacy of the battle fleet and strangling vital lines of communications. The torpedo eventually would constitute such a threat, but the Jeune École erred in focusing on a delivery vehicle meant to make the battleship obsolete before the technology was available and proven. It was the German submarines of the Great War that carried the torpedoes that directly threatened Great Britain's supremacy at sea, not the French torpedo boats of the 1880s. France's famed student of strategy Hervé Coutau-Bégarie indeed mused that "the fault of Aube was perhaps to be right too early." 91

Another flaw was the strident militancy of the Jeune École disciples. They strenuously refused to listen to their opponents, neglecting to admit that technological advances would spur not only the rise of asymmetric warfare but the development of defensive measures against such means, just as during the ironclad era the development of the explosive shell had been followed closely by that of armor plating. To promote their views, the disciples allied themselves to radical politicians, which deeply fractured the naval officer corps amid the cabinet instability that was a hallmark of the Third Republic, preventing the formulation and sustainment of a single, long-term shipbuilding plan. This may have been the greatest, if unintended, harm that the Jeune École caused, as the debate initiated in the 1870s contributed to the country's poor state of readiness at sea up to the First World War.

This marked a very important departure from the tradition of political neutrality that had been observed throughout previous decades: "Ever since the great purges of the Revolution [of 1789], the navy had not taken part in national political life. The sole aim of the naval chiefs, regardless of their private political convictions, was to keep the navy intact, not to preserve or support a given political order."92 This largely explains the strength of France's navy under Napoleon III. From the Bourbon Restoration through the July Monarchy and the Second Republic to the Second Empire, political neutrality assured continued support from those in power, despite the social turmoil of the early nineteenth century. With political will and public support in hand, French naval leaders set about creating a balanced and effective force. This continuity in purpose crested with the 1857 shipbuilding program, which laid the foundations for Napoleon III's fleet. Still derided by some historians today because it seemingly failed to make a viable contribution during the Franco-Prussian War, La Royale nonetheless served France well through the 1860s—as long as the emperor adhered to realistic objectives overseas and viable policies on the Continent. Even the lack of results at sea in 1870 cannot be blamed squarely on naval leaders. They had completed a modicum of operational planning for war with Prussia, but they could not have foreseen that their emperor's diplomatic rashness and the disastrous land campaign would deprive the fleet of any opportunity to execute those plans.

Study of this period remains relevant today for those involved in military transformation during a time of geopolitical and strategic uncertainty set against a background of spiraling and ostensibly unaffordable technological innovations. Naval policy under the Second Empire proved correct, but it failed to explain itself to politicians and the public alike, as no cogent theoretical and doctrinal framework supported it. This greatly facilitated the opening of a path for "technological determinists," such as Richild Grivel and Aube, who laid out such a discourse, one that promoted future technological developments to undermine the position of proponents of the status quo. A large part of that vision would prove correct in the longer term, but the immediate adoption of such a strategy to shape contemporary naval policy failed France because it did not provide the means to support the country's current objectives. The situation was made only worse when the debate assumed political overtones, introducing a stridency that left the Marine nationale deeply divided. Shipbuilding programs repeatedly were altered as governments came and went, resulting at the turn of the century in an assembly of disparate "sample ships" in lieu of the balanced fleet achieved previously under Napoleon III.

The Second Empire and the Third Republic demonstrated in their very distinct ways that naval policy and strategy must remain closely aligned to deliver affordable means in support of a country's realistic objectives at home and abroad. This is an enduring lesson for today, when the future of modern navies remains cloaked in uncertainty and controversy.

#### NOTES

This article is an update of a paper submitted in support of my doctoral studies at the Royal Military College of Canada, in Kingston, Ontario. It has been greatly improved thanks to feedback from my professor at the time,

Dr. Andrew Iarocci (now assistant professor at Western University in London, Ontario), as well as three anonymous reviewers from the Naval War College Review. Any remaining shortcomings are mine alone.

- 1. Paul Kennedy, The Rise and Fall of British Naval Mastery (London: Penguin, 2017). The foreword (but for a few pages) is available at "Introduction to the 2017 Edition," Google Books, books.google.co.jp/. All subsequent references to this book are from Paul Kennedy, The Rise and Fall of British Naval Mastery (London: Penguin, 2001).
- 2. For a typical view, see Peter M. Swartz, "Rising Powers and Naval Power," in The Chinese Navy: Expanding Capabilities, Evolving Roles, ed. Phillip C. Saunders et al. (Washington, DC: National Defense Univ. Press, 2011), pp. 1-22.
- 3. Arne Røksund, The Jeune École: The Strategy of the Weak (Leiden, Neth.: Brill, 2007).
- 4. Marine nationale is the formal name of the French national navy. Informally it also is known as La Royale.
- 5. Jean Baptiste Marestier, Mémoire sur les bateaux à vapeur des États-Unis d'Amérique (Paris: Imprimerie Royale, 1824; repr. Whitefish, MT: Kessinger, 2010).
- 6. Étienne Taillemite, Histoire ignorée de la marine française (Paris: Perrin, 1988), p. 435; Henri Darrieus and Jean Quéguiner, Historique de la marine française, vol. 3, 1815-1918 (Saint-Malo, Fr.: Éditions l'Ancre de Marine, 1997), p. 29.
- 7. Darrieus and Quéguiner, 1815-1918, p. 30; Philippe Masson, Histoire de la marine, vol. 2, De la vapeur à l'atome (Limoges, Fr.: Charles Lavauzelle, 1992), pp. 82-83.
- 8. Masson, De la vapeur à l'atome, p. 84; Theodore Ropp, The Development of a Modern Navy: French Naval Policy 1871-1904 (Annapolis, MD: Naval Institute Press, 1987), p. 9.
- 9. Darrieus and Quéguiner, 1815-1918, pp. 19-20; Masson, De la vapeur à l'atome, p. 40.
- 10. Masson, De la vapeur à l'atome, pp. 40-41. For a classic treatment of the circumstances that led to the battle and the action itself, consult C. M. Woodhouse, The Battle of Navarino (London: Hodder & Stoughton, 1965).
- 11. Darrieus and Quéguiner, 1815-1918, pp. 33-34; Masson, De la vapeur à l'atome, pp. 47-48. The French navy assumed responsibility for the occupation of the city of Ancona from 1832 to 1839.

- 12. Masson, De la vapeur à l'atome, pp. 42-46; Benjamin Stora, *Histoire de l'Algérie coloniale* (1830-1954), 2nd ed. (Paris: La Découverte, 2004), pp. 12-15.
- 13. Darrieus and Quéguiner, 1815-1918, pp. 40-41; Taillemite, *Histoire ignorée*, pp. 340–55.
- 14. Darrieus and Quéguiner, 1815-1918, pp. 34-37; Martin Motte, Une éducation géostratégique: La pensée navale française de la Jeune École à 1914 (Paris: Économica, 2004), p. 80.
- 15. Darrieus and Quéguiner, 1815-1918, pp. 37–39; Masson, De la vapeur à l'atome, pp. 55–57; Norman Rich, Great Power Diplomacy 1814-1914 (Columbus, OH: McGraw-Hill, 1991), pp. 105-109.
- 16. Hervé Coutau-Bégarie, "Réflexions sur l'école française de stratégie navale," Institut de Stratégie Comparée, www.institut-strategie.fr/; Michèle Battesti, La marine de Napoléon III: Une politique navale (Paris: Service Historique de la Marine, 1997), pp. 30-36.
- 17. Ropp, The Development of a Modern Navy, p. 6; Battesti, La marine de Napoléon III, pp. 28-30. On the economic failings of the monarchy in the late 1830s and early 1840s, see Robert Tombs, France 1814-1914 (London: Routledge, 1996), pp. 363-65.
- 18. Ropp, The Development of a Modern Navy, p. 7; Taillemite, Histoire ignorée, p. 458.
- 19. Ropp, The Development of a Modern Navy,
- 20. Taillemite, Histoire ignorée, pp. 458-59; Kennedy, The Rise and Fall of British Naval Mastery, pp. 172-73.
- 21. For an extensive discussion of Napoléon's technical specifications and performance at sea, see Battesti, La marine de Napoléon III, pp. 50-57.
- 22. Nephew and heir to Napoleon I, Charles-Louis-Napoleon Bonaparte had been elected by popular vote as president of the Second Republic in the wake of the 1848 revolution. Initiating a coup d'état in December 1851, he seized dictatorial powers and then ascended the throne as Napoleon III on December 2, 1852. He ruled until his defeat and capture by the Prussians at Sedan in September 1870. Ironically, he is sometimes referred to as the first elected president of France and its last dictator. On the fall of the Louis Philippe

- monarchy, the rise of the Second Republic, and the proclamation of the Second Empire, see Tombs, France 1814-1914, pp. 373-94.
- 23. For recent, in-depth, and objective treatments of Napoleon III and his time, see Éric Anseau, Napoléon III: Un Saint-Simon à cheval (Paris: Tallandier, 2013), and James F. McMillan, Napoleon III, 2nd ed. (London: Routledge, 2013).
- 24. Tombs, France 1814-1914, pp. 399-402.
- 25. Emmanuelle Guenot provides a fresh perspective by a French author in "Napoleon III and France's Colonial Expansion: National Grandeur, Territorial Conquests and Colonial Embellishment, 1852-1870," in Crowns and Colonies: European Monarchies and Overseas Empires (Manchester, UK: Manchester Univ. Press, 2016), pp. 211-26.
- 26. Tombs, France 1814-1914, pp. 403-404; Battesti, La marine de Napoléon III, pp. 67-73; Trevor Royle, Crimea: The Great Crimean War 1854-1856 (New York: St. Martin's, 2000), pp. 15-33, 64-76.
- 27. Royle, Crimea, pp. 91-102; Darrieus and Quéguiner, 1815-1918, p. 51. Sinope was the first large-scale battle involving steampropelled warships.
- 28. Richard Brooks, The Long Arm of Empire: Naval Brigades from the Crimea to the Boxer Rebellion (London: Constable, 1999), pp. 2-3.
- 29. Royle, Crimea, pp. 166-202; Battesti, La marine de Napoléon III, pp. 79-88, 102-23.
- 30. Motte, *Une éducation géostratégique*, pp. 85-88; Battesti, La marine de Napoléon III, pp. 156-59.
- 31. Taillemite, *Histoire ignorée*, pp. 467–68; Darrieus and Quéguiner, 1815-1918, pp. 53-56; Battesti, La marine de Napoléon III, pp. 126-34.
- 32. Kennedy, The Rise and Fall of British Naval Mastery, p. 178.
- 33. Great Britain again followed France by designing ironclad frigates of the Warrior class, launched between 1859 and 1862. Darrieus and Quéguiner, 1815-1918, pp. 56-57; Kennedy, The Rise and Fall of British Naval Mastery, pp. 179-80.
- 34. Ropp, The Development of a Modern Navy, pp. 7-8.

- 35. Motte, *Une éducation géostratégique*, pp. 86-87; Battesti, La marine de Napoléon III, pp. 163-75.
- 36. Ropp, The Development of a Modern Navy,
- 37. Ibid., pp. 9-10; Coutau-Bégarie, "Réflexions"; Battesti, La marine de Napoléon III, pp. 243-46, 786-90.
- 38. Ropp, The Development of a Modern Navy, p. 22; Battesti, La marine de Napoléon III, pp. 1022 - 25.
- 39. Ropp, The Development of a Modern Navy, pp. 23-24; Michael Howard, The Franco-Prussian War, 2nd ed. (New York: Routledge, 2001), pp. 74-76.
- 40. Darrieus and Quéguiner, 1815-1918, pp. 70-71; Battesti, La marine de Napoléon III, pp. 1009-21.
- 41. Ropp, The Development of a Modern Navy, p. 23; Battesti, La marine de Napoléon III, pp. 1027-35.
- 42. Darrieus and Quéguiner, 1815-1918, pp. 70-71; Battesti, La marine de Napoléon III, pp. 1049-54, 1063-65.
- 43. Darrieus and Quéguiner, 1815-1918, pp. 71-74; Howard, The Franco-Prussian War, pp. 132-33, 236-37, 319-20.
- 44. Howard, The Franco-Prussian War, pp. 437-49. For a more in-depth treatment of these turbulent months, see Alistair Horne, The Fall of Paris: The Siege and the Commune 1870-71, 2nd ed. (London: Penguin, 2007).
- 45. The Thiers government was considered provisional, as a constitution for the Third Republic would not be agreed on until 1875. Thiers himself was not actually initially president but rather was originally designated chef du pouvoir exécutif (head of the executive power). Nevertheless, his role was very much presidential as he was both an elected figure and the head of state, often called on to confront the assembly while exercising the role of commander in chief of the armed forces. On his period in power, the rise of revanchisme, and the initial rebuilding of the French army, see Allan Mitchell, "Thiers, MacMahon, and the Conseil supérieur de la guerre," French Historical Studies 6, no. 2 (Autumn 1969), pp. 232-52.

- 46. Quoted in Ropp, The Development of a Modern Navy, p. 31. The original quote in French can be found in Taillemite, Histoire ignorée,
- 47. Ropp, The Development of a Modern Navy, p. 31; Motte, Une éducation géostratégique, pp.
- 48. Taillemite, Histoire ignorée, pp. 477, 479; Motte, Une éducation géostratégique, pp.
- 49. Ropp, The Development of a Modern Navy, p. 33; Masson, De la vapeur à l'atome, p. 136.
- 50. On Portal and Grivel, see Coutau-Bégarie, "Réflexions." Admittedly, such dearth of debate on naval strategy also prevailed in a Great Britain satisfied with the Nelsonian tradition. See Kennedy, The Rise and Fall of British Naval Mastery, p. 182, and Arthur J. Marder, The Anatomy of British Sea Power: A History of British Naval Policy in the Predreadnought Era, 1880-1905 (London: Frank Cass, 1964), p. 44.
- 51. French construction was a mix of continued innovation and obsolete technology. Work began in 1873 on the battleship Redoutable, the first to be built around a steel frame (lighter and more flexible than iron), while other projects still followed older drawings based on armor-plated wooden hulls. The British commenced work on Iris and Mercury in 1875 in response to the use of steel in France, continuing the tradition of following and then surpassing French developments. Taillemite, Histoire ignorée, p. 479; Ropp, The Development of a Modern Navy, pp. 41-42.
- 52. Taillemite, Histoire ignorée, p. 483. For a treatment of the Italian and Russian building programs, see Ropp, The Development of a Modern Navy, pp. 74-86, 86-91. On the German shipbuilding plans, see Robert K. Massie, Dreadnought: Britain, Germany, and the Coming of the Great War (New York: Random House, 1991), p. 161.
- 53. Coutau-Bégarie, "Réflexions"; Ropp, The Development of a Modern Navy, pp. 19-22; Røksund, *The Jeune École*, pp. 1–3.
- 54. Røksund, The Jeune École, p. 4.
- 55. The superiority of one fleet over the other would be based purely on numbers, as the level of technology would be the same for both opponents, while steam propulsion

- would eliminate the element of chance that had affected so many engagements during the age of sail, influenced as they were by the vicissitude of the winds. Aube's early thoughts appeared in the following articles: "Les réformes de notre marine militaire," Revue des deux mondes (April 1871); "De la guerre maritime," Revue maritime et coloniale (April 1873); and "L'avenir de la marine française: Le décuirassement, la guerre de course, la réduction du personnel," Revue des deux mondes (July 1874). See Coutau-Bégarie, "Réflexions"; Røksund, The Jeune École, pp. 5-6; and Motte, *Une éducation géostratégique*, pp. 167–75.
- 56. Ropp, The Development of a Modern Navy, pp. 157-58; Røksund, The Jeune École, pp. 8-12.
- 57. Two Russian torpedo boats each launched a British-built Whitehead torpedo against the Turkish steamer Intibah on the evening of January 25, 1877. Both torpedoes found their mark, sinking the vessel. Ropp, The Development of a Modern Navy, p. 116.
- 58. Darrieus and Quéguiner, 1815-1918, pp. 82-89; Masson, De la vapeur à l'atome, pp. 141-48.
- 59. Taillemite, *Histoire ignorée*, pp. 499–505; Ropp, The Development of a Modern Navy, pp. 159-70; Røksund, The Jeune École, pp. xii-xiii.
- 60. Kennedy, The Rise and Fall of British Naval Mastery, pp. 177-79; Ropp, The Development of a Modern Navy, pp. 205-10.
- 61. On this period, see Tombs, France 1814-1914, pp. 442-47.
- 62. Ropp, The Development of a Modern Navy, pp. 119-22; Taillemite, Histoire ignorée, pp. 479-80.
- 63. Lamy actually declared the battleship a symbol of Bonapartism unsuitable for a republic, and the smaller crews of the torpedo boats more representative of the democratic ideal. Ropp, The Development of a Modern Navy, p. 122. Motte refers to the rise of a new "sociotechnical" paradigm that contributed to the strident stance that proponents of the Jeune École adopted during that period in Une éducation géostratégique, pp. 705-707.
- 64. Ropp, The Development of a Modern Navy, pp. 123-31.

- 65. Ibid., p. 172. The bateaux-canons were steam vessels conceived to carry a single large gun. They would leverage speed, maneuverability, and numbers to overwhelm larger opponents and conduct shore bombardment. They are sometimes referred to as unarmored gunboats in English-language literature. "Torpedo boats for use against other torpedo boats," which also were referred to as defensive torpedo boats, sported several light machine guns, a spar torpedo, and a ram. With the mission of protecting the ships of the line against smaller torpedo boats, they eventually would come to be called torpedo boat destroyers, an appellation shortened to destroyers during the First World War.
- 66. Røksund, The Jeune École, pp. 59-81; Ropp, The Development of a Modern Navy, pp.
- 67. Røksund, The Jeune École, pp. 59-81; Ropp, The Development of a Modern Navy, pp. 176-80.
- 68. The controversy on the lessons to be drawn from the 1886 maneuvers continues to this day, with scholars drawing vastly different conclusions, as evidenced by comparing Ropp, who condemns the torpedo boat, with Røksund, who views the results of these experiments in a much more positive light. Ropp, The Development of a Modern Navy, pp. 175-78; Røksund, The Jeune École, pp. 63 - 73.
- 69. Taillemite, Histoire ignorée, pp. 484-85; Røksund, The Jeune École, pp. 86-96.
- 70. Alfred Thayer Mahan, The Influence of Sea Power upon History, 1660-1783 (Boston: Little, Brown, 1890; repr. New York: Dover, 1987). On his influence at the time, see Kennedy, The Rise and Fall of British Naval Mastery, pp. 182-83. For a powerful analysis of his theories, still relevant today, see Philip A. Crowl, "Alfred Thayer Mahan: The Naval Historian," in Makers of Modern Strategy from Machiavelli to the Nuclear Age, ed. Peter Paret, 2nd ed. (Princeton, NJ: Princeton Univ. Press, 1986), pp. 444-77.
- 71. Taillemite, Histoire ignorée, p. 482; Masson, De la vapeur à l'atome, pp. 166-68.
- 72. Ropp, The Development of a Modern Navy, pp. 197-98; Røksund, The Jeune École, p. 110.

- 73. Ropp, The Development of a Modern Navy, p. 283.
- 74. Sources of tension between France and Great Britain included quarrels over the Congo in 1884-85, western Africa throughout the 1880s and 1890s, and Siam (Thailand) in 1893. The biggest cause of friction, however, remained control of the Nile valley, a source of frustration for France ever since British troops had arrived in Egypt in 1882. Paul M. Kennedy, The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000 (New York: Random House, 1987), pp. 219-20.
- 75. The Fashoda episode is discussed extensively in Ropp, The Development of a Modern Navy, pp. 306-23; Røksund, The Jeune École, pp. 143-56; Motte, Une éducation géostratégique, pp. 384-410.
- 76. Quoted in Kennedy, The Rise and Fall of British Naval Mastery, p. 206; Massie, Dreadnought, p. 256.
- 77. Christian Roche, *L'Afrique noire et la France* au XIX<sup>e</sup> siècle: Conquêtes et résistances (Paris: Karthala, 2011), p. 91; James J. Cooke, New French Imperialism, 1880–1910: The Third Republic and Colonial Expansion (Newton Abbott, U.K.: David & Charles, 1973), pp. 95-97.
- 78. Darrieus and Quéguiner, 1815-1918, pp. 117–20; Røksund, The Jeune École, pp. 161-75; Ropp, The Development of a Modern Navy, pp. 326-36.
- 79. For a recent French perspective of the Lanessan ministry, see Motte, Une éducation géostratégique, pp. 461-69. For a contemporary British view of the "flying squadron" concept, see Archibald S. Hurd, "The New Flying Squadrons of France," Fortnightly Review 78 (1902), pp. 321-29. My appreciation to an anonymous referee of the Naval War College Review who brought this important source to my attention.
- 80. Røksund, The Jeune École, p. 166.
- 81. On Pelletan's tenure from 1902 to 1905, see Røksund, The Jeune École, pp. 213-21, and Motte, Une éducation géostratégique, pp. 479-91.
- 82. Taillemite, Histoire ignorée, pp. 565-67; Masson, De la vapeur à l'atome, pp. 218-26.

- 83. Robert Dumas, "Les cuirassés 'Dreadnought' en France de 1907 à 1921," Nouvelle revue maritime, no. 398 (January-February 1986), pp. 110-23. On the larger so-called dreadnought revolution, see Massie, Dreadnought, pp. 468-97, and Ropp, The Development of a Modern Navy, pp. 304-305.
- 84. On the French naval experience during the Great War, see Darrieus and Quéguiner, 1815-1918, pp. 181-201, and Masson, De la vapeur à l'atome, pp. 235-80.
- 85. Massie, Dreadnought, pp. 342-50; Henry Kissinger, Diplomacy (New York: Simon & Schuster, 1994), pp. 188-90.
- 86. Marder, The Anatomy of British Sea Power, pp. 530-32; David C. Evans and Mark R. Peattie, Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy 1887-1941 (Annapolis, MD: Naval Institute Press, 1997),

- pp. 127-29; Jan S. Breemer, "The Burden of Trafalgar: Decisive Battle and Naval Strategic Expectations on the Eve of World War I," Journal of Strategic Studies 17, no. 1 (March 1994), pp. 33-62.
- 87. Kissinger, *Diplomacy*, pp. 190–91, 196–97; Massie, Dreadnought, pp. 351-68, 719-43.
- 88. Kissinger, Diplomacy, pp. 197, 212-13; Massie, Dreadnought, pp. 825-27.
- 89. Taillemite, Histoire ignorée, pp. 546-47; Motte, Une éducation géostratégique, pp. 622-23.
- 90. Ropp, The Development of a Modern Navy, p. 167.
- 91. Coutau-Bégarie, quoted in Røksund, The Jeune École, p. 229.
- 92. Ropp, The Development of a Modern Navy, p. 48.

# SEA POWER IN THE PELOPONNESIAN WAR

John Nash

he Peloponnesian War (431–404 BCE) was one of the defining conflicts of the ancient Greek world. It involved almost all the Greek city-states, aligned with one of the two main protagonists, Athens and Sparta. Conventionally it is seen as a war between a great land power, Sparta, and a great sea power, Athens. The effect of viewing the war in this way is to give less prominence to the place of sea power in the conduct of the war, with that element viewed as relevant to only one side. Many scholars acknowledge that Athenian war strategy was primarily a maritime strategy and that Sparta only defeated Athens once the former had embraced the use of sea power against the latter. This is the basic narrative, and it is essentially correct. However, there is little appraisal of how sea power was used in the conduct of the war. This is unfortunate, since the Peloponnesian War is an excellent example of the uses and effectiveness of sea power. A more

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thorough examination of the thirty-year war between Sparta and Athens and their respective allies reveals a conflict in which sea power was of critical importance.

Sea power in the Peloponnesian War is visible along the full spectrum of maritime operations. Following Ken Booth and Eric Grove, modern naval operations commonly are divided into three main categories—the "span of maritime tasks," in current Australian maritime doctrine: military, diplomatic, and constabulary (policing). An examination of naval operations during the Peloponnesian War makes clear that, even at that time,

naval forces conducted operations that spanned these three basic categories in ways that are recognizable to the modern observer.

These categories are not intended to be prescriptive, and naval operations often span several different tasks; current Chinese antipiracy operations in the Gulf of Aden can be seen as both constabulary and diplomatic in nature, for instance. What these categories aid in illustrating is the many and varied operations that navies conduct and how sea power is used, and used differently, by various powers and with different strategies in place.

The strategy of Athens under the leadership of the statesman Pericles was conspicuously and unambiguously maritime in nature. Under his leadership, Athens would import all its required foodstuffs, avoid land battle with the dreaded Spartan phalanx, and conduct amphibious operations against Spartan territory. Athenian war strategy changed significantly in the second half of the Peloponnesian War (413-404 BCE), but it nevertheless remained a maritime strategy.<sup>2</sup> This portion of the struggle commonly and misleadingly is referred to as the Decelean War, but the Ionian War is a more appropriate term. The fortification of Decelea in Attica did separate Athens from a large part of its countryside and cut off the land route to the critically important island of Euboea, and this fortification did define to a strong degree Athenian and Spartan strategy for the final years of the war. However, the actual conduct of the war was carried out almost entirely in the eastern Aegean and up to the Hellespont (Dardanelles) region. It was a war defined by maritime operations: the interdiction of trade; diplomatic coercion; amphibious operations; and pitched naval battles, on both a small and a large scale. Examining these operations provides a better picture of how the war was conducted and brings its truly maritime nature to the fore, allowing the value of studying this period to be appreciated fully.

## SEA POWER AND TECHNOLOGY

Before examining maritime and naval operations in the Peloponnesian War, it is important to address the issue of technology and the limitations imposed on naval forces of the period. Too many scholars, of both classical history and modern strategic thought, consider technology to have been so primitive as to render the study of maritime strategy in ancient history pointless. Chapter titles found in some works clearly demonstrate the poor regard in which some hold the naval operations of this era (e.g., "The Pre-naval Era" [James Cable]; "Land Warfare Afloat: Before 1650" [Michael A. Palmer]).3

Palmer especially makes sweeping statements about the technological effectiveness of ancient fleets, most notably that it was only with the advent of European sailing navies that states sought to command the seas by destroying enemy fleets. 4 Yet the fifth-century BCE naval battles of Salamis, Mycale, Arginusae, and Aegospotami involved fleet actions aimed at removing the opposing fleet from the sea—with some or a complete measure of success. Also worthy of mention are the numerous battles fought during the third-century BCE First Punic War between Carthage and Rome, most notably the battle of the Aegates Islands, a naval battle that effectively decided the outcome of the war in Rome's favor, with widespread and long-lasting consequences, especially with regard to the Second Punic War. Roman sea power ensured that the general Hannibal had to walk to Italy rather than go by sea. 5 Palmer's assertion is limited severely in both time and space, seeming to posit sea command theory as a European, Enlightenment-era phenomenon. An assertion as sweeping as Palmer's is not backed by historical evidence, and the Peloponnesian War example is an effective corrective.

As the debate raged over whether Sparta and its allies should go to war with Athens, the historian Thucydides has the Corinthians pushing for war, writing, "A single defeat at sea is in all likelihood their [Athens's] ruin." Whether this was a genuine Corinthian view or an Athenian fear that Thucydides projected through a speech is immaterial to this particular argument. Irrespective of viewpoint, the idea that the war in general, not just the war at sea, could be resolved in one great fleet action was clearly in evidence 2,500 years ago. The historian Diodorus Siculus states that late in the war, in approximately 410, the Spartans thought that for them to lose at sea constituted no more than a setback, since they were still supreme on land, but that defeat at sea for Athens would result in that city fighting for its very survival. Indeed, by that stage of the war the Athenians were clinging on to a fragile empire, with their resources severely depleted, while Sparta's "center of gravity," the Peloponnese, was safe from the depredations of the Athenians.8

This line of thinking on decisive battle has a striking parallel in the early twentieth century and the First World War. It is reminiscent of the German naval strategy under Admiral Tirpitz of a "risk fleet": the idea that the inferior German High Seas Fleet could catch a portion of the Royal Navy's Grand Fleet and defeat it, thus—with one grand battle—altering the balance of naval power in favor of Germany.9 The Athenians in 480 were able to erode the Persian fleet's fighting ability at Artemisium, admittedly with the help of a storm, and soon after at Salamis were able to defeat the Persians at sea, making the decisive land battle at Plataea possible and thus saving Greece. 10 The aforementioned Corinthian speech is an explicit expression of decisive naval battle as a conscious strategy. Taken with the Persian Wars example, the Corinthian and Spartan examples show that over a 2,500-year period, the concept of a "Mahanian" battle at sea to determine the outcome of a war remained an appealing and viable strategy with roots in the classical Greek era.11

The purpose here is not to disregard technological limitations or minimize the importance of technology, but to illustrate the enduring nature of some basic tenets of naval warfare and maritime strategy. Technological limitations often are used to justify a view that navies of the time could not participate in any contest for control of the sea. Cable criticizes Mahan's exploration of sea control during the Second Punic War, writing that Mahan does not mention the very limited sea-keeping capacities of Roman galleys or their dependence on coast hugging as almost their sole mode of navigation—as if these aspects had any bearing on the concept of sea control. 12 The basic fact of the matter was that the Romans could do what they wanted at sea and the Carthaginians were restricted severely in their ability to use the sea for their own purposes—as clear an example of control of the sea as any other throughout history. 13 Sea control should be thought of as a relative concept, not an absolute one.

## **SEA CONTROL**

The concept of sea control is certainly in evidence during the Peloponnesian War, despite the restrictions of technology. In the second year of the war, Thucydides has Pericles console the people of Athens, telling them that there are two domains, land and sea, and that the Athenians hold sway over the sea-not only as they are doing so at present, but to whatever extent they think fit. Moreover, "your naval resources are such that your vessels may go where they please, without the [Persian] king or any other nation on earth being able to stop them."14 This was a bold assertion, and one made in the context of a political speech to the Athenian population; yet the basic premise was correct. Events of the year had demonstrated that the Athenians could sail where and when they wanted. There were some exceptions, such as the virtually unopposed Spartan raid on Salamis, which caused a panic in Piraeus, but this helps demonstrate a basic tenet of sea control: it is limited in time and space. 15 While technological considerations precluded what might be called "sea command" from being exercised, this is true of most times in the history of naval warfare. 16 The state of sea control throughout the war passed from Athenian control of the sea, to a contested sea, and finally to Spartan control of the sea. Moreover, as Pericles's speech illustrates, the idea of navies being able to establish sea control at this time was a conscious strategic concept. Again, that these changes in sea control are readily apparent invalidates arguments that such concepts were not present in the classical world.

The ultimate role of navies, both past and present, is to fight and win at sea. Although naval battles may occur infrequently, all other roles that navies undertake are dependent on the ability to fight and win against an enemy. There is little possibility of conducting amphibious operations, diplomatic coercion, or trade protection if a naval force cannot prevail over an enemy in battle. This principle is demonstrated amply throughout the Peloponnesian War. Athens's ability to prevail in battles at sea allowed it to gain and maintain sea control.

#### THE STRATEGY OF PERICLES AND HIS SUCCESSORS

Athenian strategy under Pericles has been the source of much debate and misconception. It was a maritime strategy and it was a defensive strategy. Athens was fortified with walls, both those around the city itself and the long constructions that ran down to the port of Piraeus. This effectively sealed off Athens from enemies; siege warfare of the time relied primarily on a besieging force starving the city out or being let in by forces within the city. It was not until the era of Philip of Macedon in the fourth century that siege weapons developed to a point at which besieging forces could threaten the walls of a city directly. Able to import all the food it required, Athens was a metaphorical island—a concept pushed by Pericles and the unidentified author referred to as "the Old Oligarch." With the safety of the city almost guaranteed and its supply lines assured, Athens could strike out at Sparta and Spartan allies using superior sea power.

The strategy of Pericles was an evolution of the strategy developed by those who had come before him, back to Themistocles and the Persian Wars. Thucydides sees Themistocles as the one who spurred Athens into becoming a sea power, thereby laying the foundations of the Athenian empire. This was because Themistocles in 478 had the Athenians rebuild their city walls, as well as the long walls connecting the city to the town and port of Piraeus. He allegedly advised the Athenians that if they were ever to find themselves hard pressed by land, they should go down to Piraeus and defy the world with their fleet. Before the battle of Salamis in 480, a Corinthian delegate attacked Themistocles's counsel, dismissing him because Athens had been evacuated and thus he did not even have a city to his name. Themistocles replied that not only did he have a city, but he had one even greater than the Corinthians—so long as the Athenians had 250 ships fully manned. 18 Athens's decision to rebuild the city's walls caused anxiety in Sparta, although it was Sparta's allies that allegedly instigated the Spartans to confront Athens, because they feared the Athenian navy and the valor the Athenians had displayed against Persia. 19 It is noteworthy that Thucydides maintains that it was Sparta's allies who were most concerned, for these allies were nearer to the coast than Sparta itself, and therefore more vulnerable to Athenian sea power. Plutarch put it bluntly in his biography of Themistocles, writing that he "fastened the city to the Piraeus and the land to the sea."<sup>20</sup>

The walls of Athens were important to defense against Spartan and other hoplites, but, as Themistocles supposedly made clear to the other Greeks, it was the fleet that formed the basis of Athenian power from the Persian Wars onward. At this early stage, it was a defensive strategy, although the Athenians engaged in various overseas campaigns before the Peloponnesian War. However, with the Delian League slowly morphing into the Athenian empire, the Athenians found themselves able to draw on vast resources. This solidified Athenian strategy, which is illustrated clearly in the fifth-century work of the Old Oligarch. The first point he makes is about Athenian hoplites: although they may be no match for their enemies, they are still stronger than their tribute-paying allies—and that was sufficient.<sup>21</sup> It is a strong indication that the Athenians did not intend to use their land forces to confront their enemies directly in pitched battle making it all the more clear that Athens's grand strategy was a maritime one.<sup>22</sup> The city-state's land army need only be stronger than that of any of the allied states. Even so, if the need arose the Athenians could use this inferior force in a superior way: their navy could land a superior force of troops wherever they wished. The author notes that "it is possible for the rulers of the sea to sometimes do as land powers do, to ravage the land of the stronger; for it is possible to sail about wherever there is no enemy or wherever they are few, and to embark to sail away as the enemy approaches."23 During the Peloponnesian War, Athenian raids on the Peloponnese demonstrated this many times. The author is highlighting the mobility of Athenian land forces. There was no need for them to engage in a futile and destructive hoplite battle to defend Attica.

As the Old Oligarch explains further, Athens exploited geography to its strategic advantage. Land powers could band together easily, whereas the sea separated islands geographically. Athens controlled this sea, and even if it failed initially to prevent the islanders from coming together, it still could cut them off from outside supplies and starve them out.<sup>24</sup> The infamous threat leveled against Melos during the Peloponnesian War was made with the understanding that Athens's navy could cut off and invade the small island without outside interference. As for the mainland cities, Athens ruled over them by fear. This was not because of a superior land army, but through a combination of Athens being able to control the flow of imports and exports and the superior mobility granted by its strong navy.<sup>25</sup> Athens's sea power, in theory and practice, became primarily an offensive force in the lead-up to the Peloponnesian War.

The separation of the operational from the strategic level of war aids in clarifying Athenian strategy during the first part of the Peloponnesian War, known as the Archidamian War. This requires caution, as there are no definite lines between these two levels, and the Peloponnesian War has received no such examination from scholars of either the classical world or modern military theory.<sup>26</sup> Nevertheless, it is a useful way to examine the war without conflating policy, strategy, and operations. At its core, strategy is about "maintaining a balance between ends, ways, and means; about identifying objectives; and about the resources and methods available for meeting such objectives."27 Under Pericles's

strategy, Athens was a city protected from land attack, with a powerful navy capable of power projection and an empire that provided a huge amount of capital with which to fund a maritime war, which would end with the continuation of the status quo ante bellum. The campaigns that Athens launched against the Peloponnese can be seen as the operational level of war: the precise ways in which Athens used *means*—sea power—to achieve its desired *ends*; in short, strategy in action. The strategy of Pericles did not, as Donald Kagan claims, fail; the successors of Pericles maintained essentially the same strategy, but pursued it more vigorously and more aggressively on an operational level.<sup>28</sup> Pericles's strategy was one of projecting maritime power as a means of coercing Sparta into peace, a strategy that ultimately succeeded in 421 with the Peace of Nicias, however imperfect Thucydides considered that peace to be.<sup>29</sup>

The opening of the war saw both Sparta and Athens initiate their war plans. Sparta invaded Attica in the hope of drawing out and defeating the incensed Athenian hoplites, while Athens gathered its allies and prepared a hundred ships for a raid on the Peloponnese.<sup>30</sup> Kagan's summary of the first year of the war has the Spartans doing widespread damage and the Athenians expending considerable time and money for little gain.<sup>31</sup> Henry D. Westlake and John F. Lazenby also conclude that the Spartans inflicted more damage on Attica than the Athenians did in return.<sup>32</sup> These are poor assessments of the events of that first year, both overestimating the damage the Spartans inflicted and grossly simplifying and underestimating the damage Athens inflicted. There is little doubt that the Spartans' invasion of Attica and their despoliation of the land upset Athenians greatly; Thucydides says so.<sup>33</sup> However, the invasion and ravaging of Attica made the Athenians more angry and resolute than despairing, and it certainly demonstrated to the Spartans that their ravaging strategy would not induce the Athenians into any rash actions.<sup>34</sup> It also assumes a negligible effort by Athens to defend Attica, which was not the case. As small as it might have been, Athens's effort to defend Attica with cavalry both boosted morale and limited the damage that the cavalry-deficient Spartan army could inflict.<sup>35</sup> Many scholars have exaggerated the effects of Spartan efforts during the first year of the war, perhaps because the traditional nature of Spartan land invasion makes it appear more effective compared with the more unorthodox Athenian maritime strategy.

On the first point, instances of ravaging during this period appear to have been greatly exaggerated regarding their material effects. In his groundbreaking work Warfare and Agriculture in Classical Greece, Victor Davis Hanson quite convincingly argues that the systematic destruction of crops and the ravaging of land are extremely difficult. Grapevines and olive trees are extremely hardy and therefore difficult to destroy; doing so requires many hours. Further, grain is vulnerable to fire and other destruction only during a narrow time window. These conclusions stem from practical experience in farming, as well as from close reading of the relevant literature. Of particular importance is a passage in the Hellenica Oxyrhynchia, in which the unknown author describes Attica before the Spartan fortification of Decelea as the most lavishly equipped part of Greece, having suffered only slight damage from the Spartans in previous attacks.<sup>36</sup> Thucydides too describes the fortification of Decelea as one of the prime causes of Athenian ruin, in stark contrast to the invasions of the Archidamian War.<sup>37</sup> This should not be a surprise, since Hanson calculates that the Spartans spent a total of only 150 days in Attica during the entire Archidamian War.<sup>38</sup> The idea that Sparta laid waste to Attica is hard to defend and the effectiveness of this Spartan strategy is overstated. Sparta's original strategy was ultimately a failure, and it was only when Sparta embraced sea power that it defeated Athens—not in the fields of Attica, but on the seas from which Athens derived its power.<sup>39</sup>

In contrast, Athens's accomplishments during the first year of the war were strategically significant, as it used sea power to strengthen its position greatly. The Athenians, along with a contingent of fifty ships from Corcyra and other allies, conducted their own ravaging of enemy territory. This raiding included an attack on the city of Methone in the helot homeland of Messenia, a strike into an area where the Spartans felt particularly vulnerable. Although the Athenians did not take the city, the attack clearly worried the Spartans. Concurrently with this operation, thirty Athenian ships raided farther north into Locris, taking hostages and defeating the Locrians who assembled there to resist them. Finally, the Athenians secured the islands of Aegina and Cephalonia, the latter taken without a fight. 40 Occupation of the former island ensured the security of the Saronic Gulf, and control of the latter helped secure a base off the west coast of the Peloponnese and Acarnania.

It is arguable that by the end of the first year of the war the Athenians had done as much material damage to the Spartans as the Spartans had to the Athenians. 41 Plutarch goes so far as to write that not only did Athenian raids on the Peloponnese cause more damage than the Spartan ones on Attica, but if the plague had not occurred the Spartans would have given up entirely.<sup>42</sup> Far more important, and often overlooked by scholars, is the fact that Athens had accomplished far more than the Spartans in solidifying and improving its strategic position in Greece, as well as proving the capability and reach of Athenian sea power.

The offshore Greek islands were important strategic locations, and both sides targeted them. The Ambrakiots convinced the Spartans that conquering Acarnania would lead to the taking of the islands of Zakynthos and Cephalonia, possession of which would make Athenian cruises around the Peloponnese much more difficult. 43 Corcyra not only possessed a strong navy, but was situated on the best sailing route from Greece to Italy. Athens's and Sparta's respective interference in

Corcyrean affairs was aimed not at conquest but at establishing a friendly government that would secure the island for their interests, especially control of the sea lines of communication (SLOCs). An Athenian attack on the island of Kythera in 424 had a twofold purpose. First, the island was a landing place for merchant ships sailing from Libya and Egypt. Second, the island was in a position from which Laconia could be secured from attacks by "privateers," which made it an excellent place for the Athenians to set up a base from which to raid the Peloponnese. 44 There is also the matter of money, as the Athenians were able to exact a tribute of four talents from Kythera, an important Spartan-allied city. This was not a departure from Athens's original strategy, as Kagan claims, but a change in the operational conduct of the war. 45 Athens still was using sea power offensively, attacking the Peloponnese and wearing down Sparta.

The culmination of the Periclean strategy was the Athenian success at Pylos and the capture of Spartan forces on the island of Sphacteria in 425. Thucydides labels the end result a stroke of enormous luck. Although luck certainly contributed to Athenian success, the matter should be seen not so simply, but as the fruition of Athenian maritime strategy. 46 Once again Kagan is incorrect in calling Demosthenes's strategy a clear departure from previous Athenian strategy.<sup>47</sup> Although it is true, as he points out, that Pericles had mentioned establishing fortifications in the Peloponnese but never did so, Pericles's death not long into the war means we cannot know whether the idea was only a vague and empty threat. 48 Demosthenes's decision to fortify Pylos demonstrates a continued, albeit belated, plan to increase pressure on Sparta through raids and attacks on its territory from the sea. Two modern scholars quite correctly interpret the Pylos campaign as the logical corollary of the Periclean strategy.<sup>49</sup> Although Thucydides writes that it was owing to a storm that the Athenians ended up at Pylos, he also states that it was the location where Demosthenes landed to "do what was wanted there" and to fortify the position, as that was the object of the voyage. This was not a random, deserted headland, as Thucydides has the two Athenian generals sneeringly say; it was territory in the heart of Messenia, among the helot population that was such a constant worry to Sparta. 50 The original Athenian plan, as Pericles had described it, was unchanged, merely pursued more aggressively at the operational level.

The Athenian decision to fortify Pylos quickly got the attention of the Spartans. Once King Agis II and the Peloponnesians ravaging Attica heard the news, they marched back immediately, and once in Sparta they called together allies from around the Peloponnese.<sup>51</sup> Once the Spartans attacked the Athenian garrison on Pylos, they made the fateful decision to land a force of hoplites on the island of Sphacteria to prevent any Athenian relieving force from establishing a base nearby.<sup>52</sup> The subsequent naval battle, in which Athens was victorious, also had the effect of trapping the Spartan hoplites occupying Sphacteria. This situation was deemed so dire that the Spartan commanders resolved to conclude a truce on the spot. In fact, the Spartans felt the situation so serious that as part of the truce they temporarily surrendered to the Athenians all their warships in Laconia, sixty in total. The Spartans were willing to gut their naval power, weak as it already was, to retain their small contingent of men. This shows a lack of Spartan confidence with respect to naval matters, and it demonstrates clearly the Athenian amphibious capability. Athenian land and naval forces could be used in close concert not just to raid territory, but to deal a serious military blow to Sparta, one with severe political consequences.

The full magnitude of Athenian accomplishments during the Pylos campaign is evident in Spartan actions after the capture of their hoplites on Sphacteria. Thucydides calls the surrender of the (approximately) 120 Spartiates the most surprising thing to happen in the war. The most immediate result of the Spartans being taken prisoner was the Athenian threat to execute them if the Spartans invaded Attica, thus ending the direct threat to Attica and freeing it up for full use. The Spartans sent envoys to Athens to recover both the prisoners and Pylos, for they were seriously alarmed by the Messenian raids being conducted from Pylos into Laconia, as they stoked the age-old fear of widespread helot rebellion.

The Athenians did not stop their naval operations of 425 with Pylos. They raided Crommyon in Corinthian territory and established a fortified base at Methana from which they could raid into the territory of Troezen. <sup>57</sup> In the northwest the Athenians based in Naupactus made an expedition against Anactorion, a Corinthian-controlled city, taking it and settling people from Acarnania there. <sup>58</sup> This meant that the entire north coast of the Corinthian Gulf from Naupactus to Ambracia, with the minor exception of Molycreion, was hostile to Corinth. These widespread amphibious operations demonstrate a powerful Athenian maritime, and especially naval, capability and a strategy that was aggressively expeditionary in nature.

Thucydides gives a very blunt assessment of the events described above, and of their effects on Sparta as well. The Spartans split their forces and stationed them throughout the most threatened areas of the Peloponnese, and took the unusual step of raising a force of cavalry and archers to act as a mobile reserve. Thucydides describes the Spartans as on the defensive, fearing internal revolution, afraid of another disaster like the one that had befallen them at Pylos, and lacking all confidence in themselves. The cause of this anxiety and outright fear was constant, unimpeded Athenian raiding along the Peloponnesian seaboard. This scourge was made possible by a strong Athenian navy that could land a force

of troops in hostile territory, protect them from enemy naval intervention, and bring them off again safely or keep them supplied and protected so they could cause even greater damage.

Although Pericles's strategy essentially remained in play throughout the first decade of the war, there were departures from it as the war expanded into new areas such as Sicily and the Chalcidice region. Nevertheless, these campaigns were also expeditionary in nature, relying heavily on naval force to project power into coastal and island regions. The first expedition to Sicily constituted a departure from Pericles's strategy, although the ostensible aim was not conquest but the provision of aid to Athens's Sicilian allies. Thucydides does give the Athenians a more sinister motive, calling the expedition a test of how vulnerable Sicily might be to Athenian conquest, but this interpretation should be viewed with caution.<sup>61</sup> The first Sicilian expedition was primarily diplomatic in nature, and Thucydides perhaps downplays the importance of the Athenians' attempts at aiding their western allies. After all, the Peloponnesians had strong friends in the west too, and for Athens to ignore its allies' call for help would have weakened its position in the west, if not in the other territories where it had allies. Because failure to aid its allies would have made Athens look weak, the dispatch of a naval expedition to Sicily in 427 can be seen as a response to external events rather than as a radical change in the conduct of the war and Athens's strategy, if not policy. As the war dragged on, it became more complex, and these instances highlight the ever-important point that strategy is not practiced in a vacuum.

Spartan operations in the Chalcidice region in the later years of the Archidamian War mark a change in Sparta's strategy that reveals the effectiveness of Athenian strategy up to that point. Thucydides explicitly states that Spartan operations in the northwest Aegean were aimed at distracting Athens and relieving the pressure it was putting on the Peloponnese, Laconia in particular. Further and even more importantly, Thucydides writes that the Spartans were happy to have an excuse to send out helots from the Peloponnese, since the occupation of Pylos was thought to have increased the chances of a helot revolt.  $^{62}$  It also marks the point at which Sparta abandoned all hope of confronting Athens at sea until well after the Peace of Nicias, for it decided to avoid naval operations in favor of a purely land campaign. However, Spartan success in the northwest Aegean presaged a bolder and more successful strategy to be undertaken during the Decelean/Ionian War, when Sparta would use Persian money to build a fleet and conduct its own amphibious operations against the Athenians in the Ionian island and Anatolian regions. Sparta recognized that the most effective strategy for victory was to separate Athens from its allies, by force or otherwise. This strategy

was tested and found to be successful during the campaigns in the Chalcidice region, but it could not be executed after the failure of the Mytilinean revolt and Pylos campaigns eroded and ultimately destroyed Spartan naval capabilities.

### OPERATIONS OUTSIDE OF BATTLE

# **Diplomacy**

He [Pericles] displayed their power to the barbarian tribes living around and to the kings and lords the power and the confidence and impunity with which they sailed where they wished, having made all of the sea subject to their control.

PLUTARCH, LIFE OF PERICLES

Naval forces have many roles outside of war and combat operations, foremost among them in diplomacy. Diplomatic tasks range from furnishing allies with moral and physical support to coercion, and all these roles fell within the scope of action of Greek maritime forces during the Peloponnesian War. Navies were and still are—uniquely placed to act as diplomatic tools; armies are inherently intrusive, whereas navies can remain at a distance, threatening or reassuring as desired without instigating hostilities.

The Plutarch passage quoted above details an Athenian expedition that Pericles conducted in approximately 436 and that is an excellent example of the use of naval force for diplomatic purposes. The fleet's presence off the coast of the Aegean Islands and Black Sea region demonstrated the Athenians' potential power to friend and foe alike, without actually encroaching on any territory or engaging in a hostile act. The Peloponnesian War involved many different protagonists spread throughout the Mediterranean, and most of them were within reach of the sea, providing a city with the opportunity to aid or menace with its navy as it saw fit, exercising both soft and hard diplomacy.

Pericles's show of force in 436 was aimed at Greeks and foreigners alike, powers with which they were at peace at the time. As Plutarch understands, it was more than a matter of simply sailing a large body of warships around; the real point of the exercise was to demonstrate Athenian sea control. The ships displayed naval and military power in a region distant from Athens, with the implication that the Athenians could project this power anywhere and at any time, thus enjoying the power, confidence, and impunity to sail where they wished, "having made all of the sea subject to their control." This was no idle threat, for the opening years of the Peloponnesian War demonstrated that the Athenian fleet indeed could sail where it wished and land troops in strategically significant areas. Further, Plutarch writes that Pericles did many things to please the people, including "sending out sixty triremes each and every year, in which many of the citizens were sailing for eight months being paid."64 This acted as an annual demonstration of Athenian sea power to the Aegean world. Some scholars believe that sixty ships is too large a number, pointing out that it would have incurred too great an annual cost; but, regardless of numbers, it remains an example of the frequent use of Athens's navy for diplomatic purposes. 65 Russell Meiggs suggests that the main function of the fleet in peacetime was as a police force, with the threefold duty of showing the flag, instilling confidence in the hearts of friends, and suppressing piracy.<sup>66</sup> Although correctly identifying the roles, he mistakenly identifies the first two as constabulary operations, when they are in fact diplomatic ones—the two most prominent and important diplomatic roles that navies undertake. The ultimate goal of such posturing was to establish in the minds of friend and foe alike the Athenian capacity and will to control the seas. Athenian power and influence were extended across the regions through the use of naval forces in a diplomatic role.<sup>67</sup>

An episode that occurred at the outbreak of the Peloponnesian War neatly demonstrates the diplomatic use of sea power. Athens decided to conclude a defensive treaty with the island state of Corcyra in 433; both Thucydides and Plutarch write that Athens needed to aid Corcyra, lest its naval power go over to Athens's rival, Corinth.<sup>68</sup> Athens sent ten ships to aid Corcyra. Especially noteworthy was the inclusion of three strategoi to command the contingent.<sup>69</sup> Considering that Athens elected ten strategoi for each year, three is a high level of command for such a small number of ships; a later raid on the Peloponnese during the first year of the war involving a hundred ships had the same number of strategoi. The Indeed, the three commanders sent to Corcyra were under very strict instructions to do nothing that might provoke Corinth or lead to a violation of the treaty Athens had with it, but to prevent an incursion into Corcyraean territory. Athens sent out a tightly controlled force of ships to aid an ally, Corcyra, while simultaneously making a show of force and a demonstration of Athenian resolve in the face of Corinthian aggression. Kagan puts it best when he describes this maneuver as less a military than a diplomatic one.<sup>71</sup>

The contention that the Athenian orders were unrealistic misses the point that it was a diplomatic rather than a military use of sea power.<sup>72</sup> It was the presence of Athenian ships to begin with, as opposed to their number, that was the entire point, and the fact that three strategoi commanded them shows the delicate nature of the task. From the outset of political tensions, Athens employed naval force as a diplomatic tool. That Pericles did not go with the force is perhaps a good indication that the other Athenian leaders clearly understood his aims.

## Trade Protection and Interdiction

The protection and interdiction of trade have been among the prime duties of navies throughout history, and the conduct of such operations during the Peloponnesian War was critical to its outcome. Both sides engaged in the protection of their own and the interdiction of enemy seaborne trade, although it was Athens that had the most to lose from an interruption of trade. Operations ranged from the employment of "privateers" and direct attacks on shipping to the control of vital SLOCs. These operations are not as well documented as the other maritime operations undertaken during the war, either in the ancient sources or by modern scholars, but they remained vital, and it was Athens's inability to protect trade, particularly in foodstuffs, that led to its surrender following blockade and starvation by Sparta.

In the second year of the war the Athenians sent six ships under a certain Melesandros to the region of Caria and Lycia, located on the Anatolian coast. Melesandros's tasks were twofold: to collect tribute and to prevent "the Peloponnesian privateers" from attacking merchantmen. 73 Both Richard Crawley and Rex Warner, translators of two of the most popular editions of Thucydides, translate leistikos in the above passage as privateer. 74 However, leistikos usually is translated as pirate or bandit, as the term was equally applicable to such activities on land and sea. Labeling them privateers implies that the Spartans employed them to attack only the shipping of Athens and Athenian allies.

In the first year of the war Athens had fortified the island of Atalante off the Opuntian coast to prevent leistikoi from sailing out of Opus and the rest of Locris and attacking Euboea. 75 It was only with the outbreak of war that Athens suddenly had found the need to fortify this particular position, suggesting that piracy was not an enduring regional issue of concern to Athens. In this case, it appears that Sparta engaged locals to privateer against the Athenians. Locris's position near Euboea—an island important for the support of Athens—made it a good base of operations, yet the Spartans' navy was so weak it was unlikely they could establish their own base there: thus the need to gain the support of leistikoi.

As for direct attacks on trade, there is a vague reference to the Spartans attacking Athenian and allied traders at sea at the very beginning of the war, but the narrative is quite unspecific and stands out most for highlighting the brutality of the Spartans. <sup>76</sup> A more detailed instance appears in 412/1, when the Spartan Hippocrates was sent out with one Laconian and eleven Sicilian ships to Cnidus on the Ionian coast. Half the ships were ordered to seize all merchant vessels sailing from Egypt.<sup>77</sup> However, the Athenians became aware of this and sent out their own ships, which intercepted and captured the Peloponnesian ships. This negated the threat to the merchant vessels, which presumably were carrying grain to the Athenians in the region. 78 In 410, the Spartan king Agis sent fifteen ships, manned by allies, to Chalcedon and Byzantium, and en route three of them were destroyed in the Hellespont by the nine Athenian ships that were always present to watch over merchantmen. 79 These examples show that the Athenians were on constant watch for threats to their merchant vessels and had mechanisms in place for the wartime control of grain throughout the Aegean.<sup>80</sup>

The final way in which trade was attacked or protected was through the control of shipping routes—the vital SLOCs. Having established supremacy over the waters of the Propontis (Sea of Marmara) after the victory at Cyzicus, Athens was able to control the flow of shipping via this route and collect a tax on all vessels sailing into the region from the Black Sea. King Agis summed up Spartan despair at the Athenian control of grain routes. "But Agis, seeing [from Attica] the many grain ships sailing into the Piraeus, was saying that it was of no advantage for them [Sparta] to shut out the Athenians from the land for much time already, if they could not hold back the grain imported by sea."81

It was evident to the Spartans that, despite occupying Athenian territory in Attica year-round, they could win only by cutting Athens off from its overseas food supply. This was achieved best through control of Athens's main SLOC, which by the end of the war ran through the Bosporus and Hellespont. Black Sea grain was critical to Athens, and had been possibly as far back as the late 430s. The loss of Euboea in 411 was a disaster for Athens, not just because of the loss of ships in the battle off Eretria, but for the loss of an important source of grain and other supplies; Thucydides held that the island was of more value than Attica.<sup>82</sup> Athens previously had imported grain from a range of different areas, but gradual Spartan pressure eventually forced the Athenians into relying on importations solely from the Black Sea region. By closing down the last available grain SLOC to Athens, Sparta finally was able to starve Athens into submission.

# **LESSONS**

The Peloponnesian War of 431–404 BCE was a maritime war, one characterized by the constant use of sea power by Athens, Sparta, and their respective allies. The lands surrounding the cities of both protagonists were not the scenes of great, or even many, battles. From Sicily in the west to the Bosporus in the east, it was the littoral areas, and especially the islands, that saw endemic warfare throughout three decades of conflict. There were only two large-scale land battles during this period, and none in which the full forces of the Athenians and Spartans were involved. Soldiers certainly had their part to play in the Peloponnesian War, but it was the ability to project power at and from the sea that was the determining factor in the war.

At the core of Athenian strategy, from the very beginning of the war, was the capability to project power ashore from the sea. Athenian ships cruising by the

island or coastal city of a recalcitrant ally were effective diplomatically because it was understood that they could cause serious damage. When it came to fighting Sparta, the Athenians' ability to raid the coast of the Peloponnese was central to their war strategy, and one to which the Spartans had no effective response. Athenian attacks demonstrated that without a navy and in spite of Spartan attacks on Attica, Sparta could not protect its allies from Athenian naval forces. The walls of Athens protected the city from the vaunted Spartan hoplites, just as the seas and Athenian triremes protected Athens's allies. Maritime power projection by the Athenians demonstrated the impotence of the Spartan land army, and raised the specter of helot rebellion as well. The Athenian victory at Pylos and Sphacteria in 425 is the starkest example of these facts and was the vindication of the Periclean strategy, regardless of how later politicians chose to exploit or throw away this important victory. The Sicilian expedition was the largest amphibious operation conducted to that time, and the operations conducted at sea had a critical impact on the fate of the expedition—in the Corinthian Gulf, off the coast of Italy, and in the Great Harbor of Syracuse. This outcome was of great consequence to the rest of the war because it enabled a Spartan strategy of confronting Athens at sea. The final years of the war were fought primarily in the eastern Aegean and saw both sides conducting maritime power-projection operations around the islands and the Hellespont region.

The use of maritime power for diplomatic and political purposes was crucial, especially for the Athenians, who relied so heavily on a maritime empire for support. Sea power granted Athens the power to keep allies in line and dissuade them from rebellion. The Old Oligarch baldly states this as the case, and Thucydides's narrative of the war supports this analysis. When Athenian naval power weakened, Sparta was able to draw away from Athens this base of support and compromise the Athenians' ability to fight. Aside from tribute collection from allies, both sides used the threat of naval force to extort money out of third powers. Athens began the war with a firmly entrenched maritime consciousness that had seen naval force used for diplomatic means on a daily basis. Both sides used navies as tools of diplomacy, especially as coercive forces with great reach.

Maritime trade was a critical Athenian vulnerability that required protection, especially as Spartan actions in Attica deepened Athenian dependence on imports of food by sea. Athenian hegemony in the Aegean had helped suppress piracy, but clearly there were plenty of would-be pirates and opportunists who were willing and able to enlist with Sparta to attack Athenian shipping. This state-sponsored piracy, akin to privateering in modern legal terms, demonstrated Sparta's recognition of the need to hit Athens at sea to damage its maritime trade. As the war dragged on and Athens became reliant on grain imports from the Hellespont region and beyond, this theater became a crucial one in the conduct of the war as Sparta tried to close the strait to Athens. It was Athens's inability to keep its SLOCs open and thereby feed itself that led to defeat.

The maritime operations that Greek forces conducted during the Peloponnesian War would have been impossible without navies' ability to fight at sea. Battle, on whatever scale, was of critical importance throughout the war. Possession of a strong fleet that was proven in battle allowed Athens to bully other states by merely sailing its fleet around the Aegean and beyond. Without establishing sea control with its fleet, Athens would not have been able to conduct a concerted campaign of maritime power projection against Sparta and its allies. The Athenians certainly would not have gained a victory as stunning as the one at Pylos/ Sphacteria without the ability to defeat the Spartan fleet in battle. It was only when Sparta took to the seas with a fleet that it was able to cause serious harm to Athens, which caused the latter's allies to rebel and threatened its maritime trade. Sparta's eventual transformation into a naval power, no matter how short-lived, combined with Athens's inability to counter this transformation effectively, was the defining factor in the war. 83 Once Sparta confronted Athens in battle at sea, it directly threatened the Athenians with loss of the foundation of their power.

Far from being a sideshow of only secondary importance, the naval and maritime dimension of the Peloponnesian War was of critical importance to the conduct, and indeed the outcome, of the war. Too much has been made of technological limitations, prejudicing the proper study of maritime operations and their impact on the history of the period. The Peloponnesian War was fought primarily at and from the sea, and the outcome of the war was decided by the ability of Athens and Sparta to use sea power effectively.

### NOTES

The author would like to acknowledge that this research was supported by an Australian Government Research Training Program Scholarship. A note on citations: ancient sources are referenced by book and chapter, and sometimes section. All ancient references are cited according to The Oxford Classical Dictionary, 3rd ed. For instance, bk. 1, chap. 121, sec. 4 of Thucydides's History of the Peloponnesian War would be cited Thuc. 1.121.4. All translations of ancient Greek texts are the author's unless otherwise noted.

1. Ken Booth, Navies and Foreign Policy (London: Croom Helm, 1977), p. 16; Eric Grove, The Future of Sea Power (London: Routledge,

- 1990), p. 234; Royal Australian Navy, Australian Maritime Doctrine (Canberra: Sea Power Centre-Australia, 2010), p. 100.
- 2. Donald Kagan, The Fall of the Athenian Empire (Ithaca, NY: Cornell Univ. Press, 1987), p. 41. Ionia refers to the area encompassing the eastern Aegean Islands and the coastal cities of Anatolia and western Turkey, home of the Ionian Greeks.
- 3. James Cable, The Political Influence of Naval Force in History (Hampshire, U.K.: Macmillan, 1998), pp. 15-16; Michael A. Palmer, Command at Sea: Naval Command and Control since the Sixteenth Century (Cambridge, MA: Harvard Univ. Press, 2005), pp. 19-38.

- 4. Palmer, Command at Sea, p. 17.
- 5. For more on this subject, see J. F. Lazenby, The First Punic War: A Military History (London: Routledge, 1996).
- 6. Thucydides, The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War, ed. Robert B. Strassler (New York: Free Press, 1996), 1.121.4. This edition is based on the 1874 translation of Richard Crawley.
- 7. Diodorus Siculus, Diodorus of Sicily in Twelve Volumes, trans. C. H. Oldfather (Cambridge, MA: Cambridge Univ. Press, 1935; repr. Loeb Classical Library, 1976), 13.52.6.
- 8. It is hard at this point to escape a comparison with the First World War, where it was said of the British admiral Sir John Jellicoe that he was the only man who could lose the war in an afternoon. Robert K. Massie, Castles of Steel: Britain, Germany, and the Winning of the Great War at Sea (New York: Ballantine, 2003), p. 56.
- 9. This was the essence of the strategy *after* war had broken out; Tirpitz's Risikogedanke (doctrine of risk) originally envisaged a German navy that eventually would be strong enough to deter the Royal Navy from war altogether. The outbreak of war in 1914 came earlier than Tirpitz expected the German fleet to achieve this (1915 was his earliest estimate; the intervening period was called the "danger period"), and thus the goal for German naval strategy during the war became the whittling down of the Royal Navy until parity was achieved. Corinthian thinking (as projected by Thucydides, at least), held that defeating a large Athenian naval contingent would bring the Peloponnesian side closer to parity with the Athenian fleet, thus negating the Athenians' greatest advantage. For Tirpitz's doctrine of risk, see Paul G. Halpern, A Naval History of World War I (London: UCL, 1995), pp. 2-5, and Robert K. Massie, Dreadnought: Britain, Germany, and the Coming of the Great War (London: Vintage, 2007), pp. 180-81.
- 10. For a more detailed examination of the war at sea during the Persian Wars, see Barry A. Strauss, Salamis: The Greatest Naval Battle of the Ancient World, 480 BC (London: Arrow, 2004), pp. 13-37, 91-253, and John R. Hale, Lords of the Sea: The Epic Story of the Athenian Navy and the Birth of Democracy (London: Penguin, 2009), pp. 43-74.

- 11. Other decisive naval battles that came later. such as Actium, Lepanto, Trafalgar, and Tsushima, among others, had a clear influence on German naval strategy. The Peloponnesian War seems to be the first explicit expression of decisive battle as a legitimate naval strategy, no doubt taking as an example the Persian Wars before it.
- 12. Cable, The Political Influence of Naval Force in History, p. 15.
- 13. The very point Mahan was making in the introduction to his groundbreaking *Influence* of Sea Power upon History, 1660-1783 (New York: Dover, 1890; repr. 1987), pp. 13-21.
- 14. Thuc. 2.62.2.
- 15. Thuc. 2.93-94; Diod. Sic. 12.49; Royal Australian Navy, Australian Maritime Doctrine, p. 72; Geoffrey Till, Seapower: A Guide for the Twenty-First Century, 3rd ed. (New York: Routledge, 2013), pp. 145-50.
- 16. The difference between sea control and sea command is essentially a question of totality. Sea command refers to the complete and unfettered ability of one side to do on or by the sea what it wishes, unopposed. This has been seen only rarely throughout history, although it could be argued that Athens gained sea command at a certain point during the Peloponnesian War, or even earlier, after the Peace of Kallias-see below. For a more in-depth discussion, see Till, Seapower, pp. 145-50.
- 17. Thuc. 1.143.5; "The Old Oligarch," Pseudo-Xenophon's Constitution of the Athenians, trans. R. Osborne, 2nd ed. (London: London Association of Classical Teachers, 2004), 2.14–16. Referring to the author as "the Old Oligarch" rather than "Pseudo-Xenophon" creates less confusion, as Xenophon had nothing to do with the Constitution.
- 18. Herodotus, The Persian Wars, trans. A. D. Godley, Loeb Classical Library 119 (Cambridge, MA: Harvard Univ. Press, 1925), 8.61.
- 19. Thuc. 1.91-93.
- 20. Plutarch, Lives, vol. 2, Themistocles and Camillus. Aristides and Cato Major. Cimon and Lucullus, trans. Bernadotte Perrin, Loeb Classical Library 47 (Cambridge, MA: Harvard Univ. Press, 1914), 19.2-3.
- 21. "Old Oligarch," Pseudo-Xenophon's Constitution of the Athenians, 2.1.

- 22. The "Old Oligarch": The "Constitution of the Athenians" Attributed to Xenophon, trans. J. L. Marr and P. J. Rhodes, Aris & Phillips Classical Texts (Oxford, U.K.: Oxbow, 2008), p. 100.
- 23. "Old Oligarch," Pseudo-Xenophon's Constitution of the Athenians, 2.4.
- 24. Ibid., 2.2.
- 25. Ibid., 2.3-5.
- 26. Many scholars and military practitioners see the idea of "operational art" as having consumed or confused the relationship between strategy and tactics. The concept of operational art as it is known today is a recent one and has provoked much debate, especially after the wars in Afghanistan and Iraq during the early part of the twenty-first century. For more discussion, see Hew Strachan, The Direction of War: Contemporary Strategy in Historical Perspective (Cambridge, U.K.: Cambridge Univ. Press, 2013), pp. 210-34, and Justin Kelly and Michael J. Brennan, Alien: How Operational Art Devoured Strategy (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 2009), available at www .strategicstudiesinstitute.army.mil/. My current PhD work is concerned with sea power and maritime strategy for the Greek classical period (roughly 550-321 BCE), with the aim of critically analyzing the role of sea power during this period.
- 27. Lawrence Freedman, Strategy: A History (New York: Oxford Univ. Press, 2013), p. xi.
- 28. Donald Kagan, "Athenian Strategy in the Peloponnesian War," in The Making of Strategy: Rulers, States, and War, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (New York: Cambridge Univ. Press, 1994), p. 41; Donald Kagan, Thucydides: The Reinvention of History (New York: Penguin, 2009), p. 85. Kagan's views on Pericles and his strategy have not changed since he wrote his four-volume series on the Peloponnesian War (1969-87).
- 29. John Hale calls the Peace of Nicias a triumph for Athens that would have gratified Pericles. Hale, Lords of the Sea, p. 184. Platias and Koliopoulos call the peace favorable to Athens, ruined only by the Sicilian expedition. Athanassios Platias and Constantinos Koliopoulos, Thucydides on Strategy: Athenian and Spartan Grand Strategies in the Peloponnesian War and

- Their Relevance Today (London: Hurst, 2010), p. 56.
- 30. Thuc. 2.17.4, 2.18-21.
- 31. Kagan, Thucydides, p. 80.
- 32. Henry D. Westlake, "Seaborne Raids in Periclean Strategy," Classical Quarterly 39, nos. 3/4 (July/October 1945), p. 81; J. F. Lazenby, The Peloponnesian War: A Military Study (London: Routledge, 2004), p. 253.
- 33. Thuc. 2.21-22.
- 34. The idea that the Athenian population would be so despondent at the destruction and ravaging of their land that effectively it would cause them to capitulate by engaging in a hopeless land battle is reminiscent of the underlying assumption in the early twentieth century that the use of strategic bombing in war would bring a nation to its knees. As the wholesale destruction of German and Japanese cities at the hands of Allied conventional bombers showed, this was flawed logic. J. E. Lendon proposes that the actions of the first six years of the war were aimed at damaging the honor of the other side, striking blows more moral than physical. It is an interesting proposal—but not terribly convincing. The fears that Spartan allies expressed during the rebuilding of the Athenian walls seem to be concerned with damage not to honor but to their property and livelihoods. Lendon does, however, seem to concede that Athenian actions included offensive operations rather than pure defense. See J. E. Lendon, Song of Wrath: The Peloponnesian War Begins (New York: Basic Books, 2010), pp. 107-283.
- 35. Thuc. 2.22.2. See also I. G. Spence, "Perikles and the Defence of Attika during the Peloponnesian War," Journal of Hellenic Studies 110 (November 1990), pp. 91-109.
- 36. "London Fragments," in Hellenica Oxyrhynchia, trans. P. R. McKechnie and S. J. Kern (Warminster, PA: Aris & Phillips, 1988), 17.4-5; Victor Davis Hanson, Warfare and Agriculture in Classical Greece, 2nd ed. (Berkeley: Univ. of California Press, 1998), p. 237.
- 37. Thuc. 7.27.3-5.
- 38. Hanson, Warfare and Agriculture in Classical Greece, p. 147. Hanson's argument does not convince everyone. James Thorne argues that the example of the ravaging of Attica is

- not representative of the economic impact of ravaging in classical Greece, because Athens alone could bear such hardship. If anything, this argument reinforces the effectiveness of sea power during the war. See James A. Thorne, "Warfare and Agriculture: The Economic Impact of Devastation in Classical Greece," Greek, Roman, and Byzantine Studies 42, no. 3 (2001), pp. 225-53.
- 39. As Kagan finally admits at the end of his survey of the Archidamian War. Donald Kagan, The Archidamian War (Ithaca, NY: Cornell Univ. Press, 1974), p. 333. However, Lazenby comes to the strange conclusion that Sparta still did more damage to Athens than Athens did to Sparta with this strategy—a conclusion with no solid foundation. Lazenby, The Peloponnesian War, p. 253.
- 40. Thuc. 2.25.1; 2.26-27; 2.30.2.
- 41. Diodorus's account gives the impression that it was the Peloponnesians who suffered most from the raiding of the first year; they were "terrified" by the Athenians "ravaging many places of the coastline." Diod. Sic. 12.42.7-8. B. X. de Wet is one of the few authors who also come to the conclusion that Athens did more material damage. His work is also an early, yet overlooked, example of a scholar arguing for a strong offensive element to Athenian war strategy. B. X. de Wet, "The So-Called Defensive Policy of Pericles," Acta Classica 12 (1969), pp. 103-19.
- 42. Plutarch, Lives, vol. 3, Pericles and Fabius Maximus. Nicias and Crassus, trans. Bernadotte Perrin, Loeb Classical Library 65 (Cambridge, MA: Harvard Univ. Press, 1916), 34.2.
- 43. Thuc. 2.80.1.
- 44. Thuc. 4.53.3; Plutarch, Per. 6.4.
- 45. Thuc. 4.57.4; Kagan, The Archidamian War, p. 261.
- 46. This refers to the outcome of the campaign rather than the Athenians' landing at Pylos. Luck is a convenient explanation for Thucydides, whose distaste for Cleon is well known. Rather than credit Cleon with a well-earned victory resulting from good leadership, it seems that Thucydides opted to ascribe the victory to luck.

- 47. A very capable politician and general, not the famed orator of the fourth century. Kagan, The Archidamian War, p. 222.
- 48. Thuc. 1.142.4.
- 49. Platias and Koliopoulos, Thucydides on Strategy, p. 49.
- 50. Thuc. 4.3.1-3. Helots made up the population of Messenia, the region Sparta conquered and enslaved into working the land on Sparta's behalf. Many consider the Spartan military regime as conceived primarily to ensure a strong military that could keep the helots suppressed in perpetual serfdom.
- 51. Thuc. 4.6, 4.8.1-2.
- 52. Thuc. 4.8.3-8. For more details on the Pylos campaign, see Lazenby, The Peloponnesian War, pp. 67-79.
- 53. Thuc. 4.15-16.
- 54. Thuc. 4.40.1. Hornblower calls this a typical rhetorical superlative. Simon Hornblower, A Commentary on Thucydides, vol. 2, Books IV-V.24 (New York: Oxford Univ. Press, 1996), p. 194. Nevertheless, the surrender of Spartan hoplites in such number was unheard of to that point, and certainly flies in the face of the vaunted reputation of Spartan hoplites, epitomized by their performance in the battle of Thermopylae in 480.
- 55. Thuc. 4.41.1.
- 56. Thuc. 4.41.1-3; Diod. Sic. 12.63.5.
- 57. Thuc. 4.45.
- 58. Thuc. 4.49. J. B. Salmon, Wealthy Corinth: A History of the City to 338 BC (Oxford, U.K.: Clarendon, 1984), p. 318.
- 59. Thuc. 4.55.1-4.
- 60. Thuc. 4.56. To paraphrase Jackie Fisher, the Athenian army was a projectile fired by the Athenian navy.
- 61. Thuc. 3.86.3-4.
- 62. Thuc. 4.80.1-2.
- 63. Plutarch, Per. 20.
- 64. Ibid., 11.4.
- 65. Russell Meiggs, The Athenian Empire (Oxford, U.K.: Clarendon, 1979), p. 206; Samuel K. Eddy, "Athens' Peacetime Navy in the Age of Perikles," Greek, Roman, and Byzantine

Studies 9, no. 2 (1968), pp. 142-55. Although Plutarch's language makes it clear that it was sixty ships under pay for the entire eightmonth period, it seems more reasonable to think that a portion of the sixty ships were sent out in rotation throughout an eightmonth period. This would ensure a healthy training rotation of ships and crews while maintaining a presence throughout the Aegean at a lower cost than having all sixty out at once, although this perhaps occurred for some periods.

- 66. Meiggs, The Athenian Empire, p. 206.
- 67. The scope of this article leaves no room for proper explanation of or speculation about why such overt and frequent demonstrations of sea power did not lead to any sort of naval arms race. A cursory examination suggests that money was the key factor, navies being capital and manpower intensive. Athens's tribute-paying allies contributed money rather than ships, so there were few large standing naval forces in the Aegean. Thus, one can glimpse tensions concerning naval armaments in the initial conflict over Corcyra, each wanted the city's very large fleet between Athens and Sparta on its side.
- 68. Thuc. 1.44.
- 69. Thuc. 1.45.
- 70. Thuc. 2.23.
- 71. Donald Kagan, The Outbreak of the Peloponnesian War (Ithaca, NY: Cornell Univ. Press, 1969), pp. 244-45.
- 72. Hornblower, Books IV-V.24, p. 90.
- 73. Thuc. 2.69.1.
- 74. Thucydides, The Landmark Thucydides; Thucydides, History of the Peloponnesian War,

- trans. Rex Warner (London: Penguin, 1954; repr. 1972).
- 75. Thuc. 2.32.
- 76. In 430. Thuc. 2.67.4; Thomas Kelly, "Thucydides and Spartan Strategy in the Archidamian War," American Historical Review 87, no. 1 (February 1982), p. 32 note 20.
- 77. Thuc. 8.35.1-2. The location of classical Cnidus is somewhat disputed. Simon Hornblower, A Commentary on Thucydides, vol. 3, Books 5.25-8.109 (New York: Oxford Univ. Press, 2008), pp. 849-51.
- 78. Thuc. 8.35.3.
- 79. Xenophon, Hellenica: Books 1-4, trans. Carleton L. Brownson, Loeb Classical Library 88 (Cambridge, MA: Cambridge Univ. Press, 1918), 1.1.36.
- 80. Peter Garnsey, Famine and Food Supply in the Graeco-Roman World: Responses to Risk and Crisis (Cambridge, U.K.: Cambridge Univ. Press, 1988), pp. 121-22.
- 81. Xen., Hell. 1.1.35.
- 82. Thuc. 8.96.1-2.
- 83. The topic of Sparta's transformation into a sea power as a phenomenon is examined more thoroughly by Barry Strauss in an interesting volume on maritime transformations throughout history (with a focus on China's modern transformation into a sea power). Barry Strauss, "Sparta's Maritime Moment," in China Goes to Sea: Maritime Transformation in Comparative Historical Perspective, ed. Andrew S. Erickson, Lyle J. Goldstein, and Carnes Lord (Annapolis, MD: Naval Institute Press, 2009), pp. 33-61.

# **COMMENTARY**

COMMAND AND CONTROL DURING THE "PERFECT STORM" HURRICANE IRMA AND THE ENSUING NATURAL DISASTERS DURING SEPTEMBER 2017 WITHIN REGION 9, MARINE CORPS EMBASSY SECURITY GROUP

Joseph E. Galvin

In September 2017, the Caribbean basin and the state of Florida encountered Hurricane Irma—the most powerful and potentially the most devastating storm to impact the region since recordings began. This category 5 hurricane formed in the southern part of the North Atlantic Ocean and traversed to the Leeward Islands, smashing into Antigua, Barbuda, Saint Martin, and the U.S. Virgin Islands, leaving them in a major state of peril. All the while, the forecasted path of the eye of the storm directly targeted the metropolitan centers of Miami and Fort Lauderdale, the latter the home of Region 9 Headquarters (HQ), Marine Corps Embassy Security Group (MCESG). The hurricane continued on its path, grazing Puerto Rico, the Dominican Republic, and Haiti, fortunately sparing their people major desolation and their infrastructure major damage, but still wreaking havoc on those nations. The hurricane then slammed into the northern beaches of Cuba, where the U.S. embassy is situated. As Irma bounced off Cuba, the eye of the hurricane changed its projected track, shifting to bring the brunt of the storm

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to the Florida Keys and the western side of mainland Florida. This extraordinary turn of events dramatically altered destruction forecasts and impacted command-and-control (C2) operations.

As if a category 5 hurricane rampaging among Region 9's detachments and barreling directly toward Region 9 HQ were not enough to disrupt C2, the storm threatened to produce ten- to fifteenfoot storm surges along multiple coasts, and actually

spawned numerous confirmed tornadoes throughout mainland Florida. Adding to the mix, during the height of hurricane command operations, Mexico experienced an earthquake measuring 8.1 on the Richter scale—breaking a centuryold record—that triggered emergency reactions from Detachment Mexico City.<sup>1</sup> This earthquake brought threats of tsunamis off the coasts of Mexico, El Salvador, and Guatemala, causing detachments there to consider emergency actions. Furthermore, during the aftermath, Detachment Havana experienced major flooding of the chancery that affected operational abilities and administrative routines. A pseudothreat of fire even challenged Region 9 HQ's displaced operations center—a fire alarm forced evacuation for a period.

This lays out the situation that Region 9, MCESG—the command element for all the Marine security guards (MSGs) for embassies in the Caribbean, Central America, and Canada—was charged with controlling. As the regional headquarters for the Caribbean MSG detachments in the embassies in Cuba, Haiti, the Dominican Republic, Barbados, Jamaica, and the Bahamas, Region 9 HQ ensures that assigned Marines are trained to coordinate with and follow the operational and emergency-action plans laid out by the regional security officer (RSO) for hurricanes and their aftermath. Additionally, the Region 9 HQ staff maintains direct administrative control over these detachments to ensure completion of all training and manpower matters.

C2 within the Region 9 HQ staff and with the MSG detachments during Hurricane Irma focused on safety, communication, and accountability.

## Safety

Safety was the theme—the main focus of effort—during Hurricane Irma. The number one command priority in a natural disaster, especially one as potentially devastating and unpredictable as a category 5 hurricane, is the safety of Marines and their families. No loss of material possessions, missed work time, or personal inconvenience can trump a well-contemplated decision that offers safety from death or serious injury. Decisions involving safety are made continuously and courses of action may be adapted or otherwise change, depending on the path of the hurricane and the trail of destruction it leaves. Safety is the priority not only during preparations and the actual weathering of the hurricane but also, and perhaps most importantly, during the cleanup phase, as this is when people are most likely to let their guard down, leading to accidents. A combination of full-blown and speedier operational risk management (ORM) plans provides outstanding assessments of courses of action contemplated during hurricane phases. Understanding the potential safety issues that hurricanes bring and how they can affect the well-being of Marines is crucial to exercising command with safety as a priority.

During preparation, Region 9 HQ coordinated with the potentially affected detachments and the respective RSOs to determine whether additional support from the Marine Security Augmentation Unit (MSAU) at MCESG would be required. In two cases, those of the Dominican Republic and Haiti, such support was requested and provided. MSAU Marines arrived in those countries to assist with any safety and operational matters the RSOs deemed necessary. This support provided extra MSGs to protect the embassies' compounds, add manpower to the detachments, and respond to operational incidents, thereby providing an extra layer of safety and security to the embassies. Region 9 HQ continuously preached safety to the detachments during the successive hurricane phases. Understanding the ORM for each plan of action and communicating that concept to every Marine were crucial to success in the campaign against Hurricane Irma.

Region 9 HQ employed another calculated safety measure by issuing a departure order for the HQ staff to evacuate southern Florida and put the continuity of operations plan (COOP) into effect. The prescribed evacuation safe haven was MacDill Air Force Base (AFB) in Tampa, Florida. This decision was not taken lightly, as the main thrust of the region strategic C2 takes place in HQ, where the infrastructure is in place. However, considering all the factors—Florida's governor directing mandatory departure from parts of the county in which Region 9 HQ is located and some Region 9 HQ Marines live, the Florida Regional Center (the physical location of Region 9 HQ) officially closing, and a category 5 hurricane bearing down directly on the location—the order was sensible, logical, timely, and prudent.<sup>2</sup> Bottom line: it was the right thing to do.

Marines are taught to adapt and overcome to accomplish the mission. The execution of the COOP at MacDill was a true testament to that ethos. However, Region 9 HQ would be tested again. After Region 9 HQ spent thirty-six hours conducting operations from the safe haven, the unpredictable hurricane curved westward around southern Florida, now severely threatening the Tampa coastline. At this juncture, the commanding general of MacDill AFB ordered the evacuation of all residents and guests. By all analyses, this was an astute decision, as Hurricane Irma's new course endangered thousands. Reacting to this new chain of events, Region 9 HQ developed courses of action in a hasty planning process, then settled on a dispersion of forces to various safe locations throughout South Carolina, Georgia, and northern Florida.3 The resultant split-forces operations required detailed coordination and a particularized communications plan (discussed later).

This theme of safety applied not only to the Marines of Region 9 but also to their families. Where authorized departures were activated at the embassies, Region 9 HQ encouraged detachment commanders to send families out of harm's way and helped coordinate logistical and administrative efforts to ensure a smooth process. Similarly, when Region 9 HQ decided to put the departure order into effect, safety of the families was a critical factor. All courses of action hinged on the safety of the activity or preparation, whether that involved ensuring that Marines had approved safe relocation sites; planned travel itineraries (via flying or driving); or adequate food, water, other emergency provisions, and rest. Getting the Region 9 family as a whole into the safest position possible to weather the hurricane allowed the Marines to continue to carry out their duties effectively, even when facing the dilemmas resulting from operating amid multiple natural disasters.

#### Communication

Safe operational courses of action are successful only when a sustainable and reliable communication structure allows a free flow of information. One of the tenets of the Region 9 commanding officer's (CO's) command philosophy is that effective communication entails ensuring that information is conveyed to all who need to know it in a timely manner. During Hurricane Irma, operations involved keeping a communication gateway among the affected detachments, Region 9 HQ, and other MCESG HQs. A preestablished communication plan enabled constant information flow throughout each event during this period of the "perfect storm." For example, when the earthquake off the coast of Mexico threatened to produce devastating tsunamis and aftershocks that would impact Guatemala, Mexico, and El Salvador, the Region 9 CO, MCESG, and the detachments communicated up-to-the-minute status reports on Marines' welfare, embassy damage, and local weather.

These entities used a highly effective push-and-pull system of information gathering/producing that was effectuated by multiple media, including e-mail; web-based applications; and cell phone text and voice functions, as well as applications (specifically, WhatsApp). An open, flat communication structure within which all parties were privy to real-time information dispensed with any communication lag, enabling those who required critical information to make efficient and knowledgeable decisions. For example, Region 9 HQ was able to produce multiple daily situation reports for MCESG HQ that offered insight on the overall status of the command and where the focus of attention needed to be as Hurricane Irma navigated through the region's area of responsibility. Often these reports were completed via e-mail; however, when communication media did not work because of weather, other forms were employed as well.

In contingency operations communication is never perfect; this was true during the Hurricane Irma event. Use of cell phones and the Internet during and after the hurricane proved to be troublesome, not only because of connectivity issues but also because almost the entire state of Florida and the Caribbean lost

electrical service for various periods. Conserving resources was key to allowing communications to continue to flow in an effective manner.

Instituting a multimedia communication structure provided significant insurance against a total communication breakdown across the vast region. However, Region 9 HQ prepared for any anomaly by designating a special Hurricane Irma liaison officer who would assume the position of the Region 9 HQ and act as an intermediary between the detachments and MCESG HQ. The Region 9 CO appointed the Ottawa (Canada) detachment commander to this liaison position and established a protocol that provided set timelines, so if all communication from Region 9 HQ was lost the liaison officer automatically would follow a prescribed plan. This "fallback" provision proved extremely beneficial. The liaison officer relayed information to detachments and MCESG, but more importantly provided stability within the region while the HQ element went through multiple evacuations and natural catastrophes. For example, when the tornadoes ripped through central Florida and temporarily cut off cell phone and Internet service, the liaison officer was able to keep up a continuous stream of communication with the detachments, providing assessments of embassy damage.

## Accountability

Perhaps the most critical use of effective communication was to account for personnel and equipment. During Hurricane Irma, judicious and steadfast communicative processes enabled all detachments and HQ Marines to submit morning reports with 100 percent accountability, providing higher HQs with an assurance that all personnel were accounted for, uninjured, and safe. Region 9 HQ mandated that all personnel report in each morning; prior to, during, and on completion of any prolonged movement; and when any commander-critical information requirements specific to the hurricane were triggered (e.g., injury or power outage). Prior to the hurricane's arrival, all the detachments reported accountability via the Internet. However, as the storm traversed the region and destroyed electrical power grids and paralyzed Internet access, detachments switched to other methods, including cell phones. For example, Cuba lost power for more than a week owing to wind damage and the flooding of the embassy, but the detachment used cell phones effectively to provide morning and situational reports to Region 9 HQ. Similarly, when Region 9 HQ was forced to conduct operations from separate physical locations after the second evacuation, it conducted internal accountability through the WhatsApp cell phone application, providing a flat-line communication method that allowed instantaneous distribution of information to all.

Ensuring the whereabouts, condition, and safety of Marines and unit equipment is the core of C2. Accountability comes as second nature to Marine commanders—but it may not be truly tested until lives are at risk. MSG command naturally embodies a strong accountability requirement, given that regions' detachments are dispersed throughout broad areas of the world; however, risk to life and limb is not always present.<sup>4</sup> Accountability becomes even more vital when the lives of family members and friends accompanying Marines are entrusted to the Marine Corps family. Hurricane Irma and its accompanying natural disasters tested Region 9's accountability procedures. Throughout the storms, Region 9 accounted for all its detachment Marines and families; this included the Region 9 HQ staff, family, and accompanying friends through two evacuations and hundreds of miles of travel.

Accountability cannot be taken for granted or assumed at any time, but especially during times of peril. Accurate accountability allows for the timely mitigation of issues and quicker resolution of problems that might fester without due attention. As noted, during the hurricane, Region 9 conducted accountability procedures in response to multiple triggers. This enabled the command and higher HQ to have full faith and confidence that all Marines and family members were uninjured and in safe locations. Because of the distances traveled and shortages of fuel, accountability was fundamental when Region 9 HQ Marines dispersed from Tampa to their various safe havens.

Command and control within the Region 9 HQ staff and the MSG detachments during Hurricane Irma and the other natural disasters focused on safety, communication, and accountability. The interplay among these three elements highlighted the importance of establishing mechanisms to facilitate internal and external coordination. Ensuring the well-being of Marines and families when life and limb are at risk is paramount to leadership, and it was the priority in this case. Constant, effective communication that provided up-to-date information to and from all affected units and individuals established positive control and instilled confidence in command capabilities. Employing multiple media mechanisms safeguarded against potential communication breakdowns that would have crippled administrative and operational movements. Accountability of Marines and equipment was a core concept of control and ensured timely and accurate reporting. The unpredictable and challenging scenarios encountered during the "perfect storm" truly tested the tenets of command and control.

#### NOTES

- 1. Joshua Berlinger, Mariano Castillo, and Ray Sanchez, "Mexico's Strongest Earthquake in a Century Leaves Dozens Dead," CNN, September 9, 2017, www.cnn.com/.
- 2. Governor Rick Scott issued partial mandatory evacuations for sixteen counties and directed voluntary evacuations for thirteen other counties. Sarah Almukhtar et al., "Maps: Tracking Hurricane Irma's Path over Florida," New York Times, September 11, 2017, www .nytimes.com/.
- 3. Maintaining a regional HQ in one location and still accomplishing the mission was
- deemed impossible because no lodging was available within approximately five hundred miles of Tampa. The course of action employed was for Region 9 HQ staff to stay with friends and family within the (relatively) immediate area of northern Florida, Georgia, and South Carolina.
- 4. For some detachments, the threat of death or serious bodily injury is a daily peril (e.g., in Afghanistan). The hazards associated with a hurricane or other natural disasters do not compare to man-made threats; the point is that the dangers vary.

## **REVIEW ESSAYS**

## THE NETHERWORLD OF GEOPOLITICS

George Michael

The Demon of Geopolitics: How Karl Haushofer "Educated" Hitler and Hess, by Holger H. Herwig. Lanham, MD: Rowman & Littlefield, 2016. 292 pages. \$85.

Over the past several years, the field of geopolitics has regained popularity. More and more, scholars show an interest in the impact of geography on international relations and political development. In his book *The Revenge of Geography: What the Map Tells Us about Coming Conflicts and the Battle against Fate* (Random House, 2013), Robert Kaplan explains how factors such as terrain, rivers, and weather have influenced the destiny of nations. In Russia, the political theorist Aleksandr Dugin counsels his nation's leaders to adopt a geopolitical strategy to counter the U.S.-led world order. He draws on not only the rich Anglo-Saxon school of geopolitics but the more obscure German tradition as well. While the former is widely available to the English-speaking world, the latter is more difficult to access. But Holger H. Herwig, professor emeritus at the

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University of Calgary, has written an important book that examines arguably the most important figure in the German school of geopolitics: the enigmatic Karl Haushofer (1869–1946). Now, for the first time, an extensive Englishlanguage treatment of Haushofer is available. In The Demon of Geopolitics: How Karl Haushofer "Educated" Hitler and Hess, Herwig examines how Haushofer's theories influenced German strategy in the years leading up to World War II.

The book is structured as a biography that cogently explains how Haushofer's strategic weltanschauung (worldview) evolved over time. Herwig has carried out extensive archival research. Haushofer's roots trace to Bavaria, where he was raised in a Catholic family. As a young man, he entered the Kriegsschule (Military College), passed his officer's examination in 1889, and received a commission as a second lieutenant. Showing leadership potential, he was admitted to the prestigious Kriegsakademie (War Academy) just two years later, and excelled. In 1904, he took up a three-year post as instructor of modern military history at the Bavarian War Academy.

Through his father, Haushofer met Professor Friedrich Ratzel (1844-1904), an ardent pan-Germanist and theoretician of geopolitics. Ratzel's opus Political Geography had an abiding influence on Haushofer's strategic outlook. According to Ratzel, geography and ethnography were the engines of world history. For that reason, educating Germany in the discipline of geopolitics was essential to long-term survival, in that nations declined to the degree they were unable to understand the necessity of expanding into new territories.

But it was in the Anglo-Saxon world that the field of geopolitics first gained broad currency. The English academic Sir Halford Mackinder (1861-1947) is regarded as the founder of the discipline. His noted 1904 article "The Geographical Pivot of History" exerted a great influence on Haushofer. For Mackinder, control of the area that corresponds roughly to Russia, Iran, and the central Asian republics (i.e., the "pivot" or "heartland"), is necessary for attaining global hegemony. Ominously, Mackinder feared that someday Germany, with its dynamic industry, technology, and scientific knowledge, would be grafted onto the vast land and natural resources of Russia. A Russo-German alliance would dominate the heartland and, by extension, the world.

Admiral Alfred Thayer Mahan (1840-1914), who went on to serve as President of the Naval War College, came to be regarded as geopolitics' principal American proponent. For Mahan, securing vital sea-lanes was the foremost factor in achieving and maintaining national greatness. After World War I, Haushofer integrated Mahan's theories on sea power with his continental-oriented strategy of geopolitics.

Finally, Haushofer was influenced deeply by Rudolf Kjellén (1864-1922), a Swedish political scientist whose book *The State as a Living Organism* stressed the importance of "human geography." To Kjellén, the state was not unlike a biological being. He invented the word autarky, or national self-sufficiency, which he believed was a requisite for attaining global power. Kjellén also coined the term Geopolitik, which Haushofer adopted for his own strategic approach.

Events in Haushofer's personal life created new opportunities for him to refine his geopolitical perspective. For example, the woman he would marry, Martha Mechtild Mary Mayer-Doss, had command of multiple languages, including a working knowledge of Japanese—a major asset to both. In 1908, the War Ministry ordered Haushofer to the German embassy in Tokyo. Haushofer's stay in Japan proved to be an important formative period of his life.

Although they were located on opposite sides of the globe, Haushofer believed that Germany and Japan exhibited similar cultures. For example, the samurai tradition was not unlike that of the Junker military class, stressing discipline, monarchism, and a strong state. Consequently, he contemplated a strategic partnership between the two nations as a way to counter American and British influence, both economic and political, in the Far East.

Published in 1913, Haushofer's book Dai Nihon (Great Japan) received favorable reviews. In it, Haushofer outlined his basic weltanschauung. He advanced a doctrine of social Darwinism, counseling that nations rose and fell according to unalterable biological laws. An unabashed imperialist, he exhorted Germany to expand into its border areas, as Japan had done in 1894-95 and 1904-1905.

When World War I broke out, Haushofer was given command of a battalion of the 1st Ammunition Column, 7th Army Corps. During quiet periods at the front, he gave much thought to the political side of the war, and concluded that Germany had entered the conflict alongside the wrong ally, the moribund Austria-Hungary. As he saw it, Germany was fighting its two "natural allies" in Russia and Japan, with whom it should be united as part of the heartland of which he dreamed. When the United States entered the conflict in April of 1917, his anti-Americanism became more acute; he wrote that "Americans are truly the only people on this world that I regard with a deep, instinctive hatred." With the U.S. military now in the war, the forces arrayed against Germany could not be surmounted. But many Germans found it difficult to accept that they had been defeated by superior military force; consequently, a "stab in the back" narrative crystallized that blamed imperial Germany's downfall on internal enemies.

By the end of the war, Haushofer had attained the rank of colonel and was commanding the 30th Bavarian Reserve Division. In the chaos that followed the armistice, he restored order in Bavaria. Returning to Munich, he affiliated with the Thule Society, a study group formed in 1911 that was devoted to ancient German history. In the realm of politics, the organization had a leading role in squelching the leftist revolution led by Kurt Eisner in the spring of 1919. In an effort to win the support of the masses, the Thule Society launched the German Workers' Party (DAP) in 1919. That same year, an obscure army corporal investigating nationalist groups attended a meeting of the fledgling political party. Adolf Hitler eventually would assume its leadership and change its name to the National Socialist German Workers' Party—which came to be known as the Nazi Party.

Not long after the war ended, Haushofer returned to academia, teaching at the Institute of Geography at the University of Munich. Eventually, he made a sober analysis of the reasons Germany was defeated in World War I. In his estimation, Germany's leadership had failed to grasp geopolitics. The experience of World War I refined Haushofer's views on sea power. He adopted Mahan's preconditions for sea power in his own theory of geopolitics. In his 1937 book World Seas and World Powers, Haushofer overcame his narrow continental viewpoint and sought to educate Germans on the subjects of commerce, colonies, sea-lanes, and oceanic trade. As Herwig points out, Haushofer's foreign policy views were a blend of romanticism and realpolitik. Increasingly, he adopted the verbiage of the primacy of race and its influence on history. By 1930, he had established himself as Germany's preeminent apostle of geopolitics.

At the university, Haushofer's most cherished student was Rudolf Hess (1894-1987). They first met at a DAP meeting in May 1920 held in Munich. After the failed Beer Hall Putsch of November 1923, Hess was sent to the Landsberg Prison along with his coconspirator Adolf Hitler. Through his pupil Hess, Haushofer influenced Hitler early in his political career. While in prison, Hitler fleshed out the material that eventually became his autobiography and political opus, Mein Kampf. In particular, Hitler was influenced by Haushofer's notion of Lebensraum (living room), which left a substantial imprint on his weltanschauung. The density of the German population cried out for territorial expansion, most especially into the broad expanses of Ukraine and Russia.

After the Nazi Machtergreifung (seizure of power) in January 1933, Haushofer hoped that Hitler would implement his geopolitical vision. On the foreign policy front—at least in the east—Haushofer was at first quite pleased with Hitler. The German-Soviet pact of 1939 appeared to be the quintessence of statecraft, in that it ignored ideology in favor of pursuing national interests. According to the secret protocol signed by Joachim von Ribbentrop and Vyacheslav Molotov, Germany and the Soviet Union would divide Poland along the Vistula, San, and Bug Rivers, while Berlin recognized Moscow's claims to the Baltic states of Estonia, Latvia, and Lithuania. With a single stroke of the pen, the pact seemed to bring Mackinder's geographical pivot of history one step closer to fruition. Haushofer was ecstatic over the treaty. With Russia as an ally, Germany would gain spatial mass, access to vast natural resources, and hinterland security. Furthermore, Hitler's alliance with Japan seemed to be in lockstep with Haushofer's grand strategy as well. Joined with Japan—whose navy was formidable in the Pacific—Germany would be virtually unassailable, never again subjected to "Anglo-Saxon tutelage."

At least initially, the treaty seemed to fend off the strategic nightmare of another two-front war on the continent. Much to Hitler's dismay, however, Moscow evinced little interest in turning south to focus on the British colonies of India and Persia. Instead, by late 1940, Molotov pressed Hitler on his intentions in Finland, Romania, the Balkans, and the Baltic. Feeling rebuffed, Hitler signed War Directive No. 21 (Case BARBAROSSA), whose objective was to crush the Soviet Union in a rapid campaign. Initiated on June 22, 1941, the invasion effectively destroyed Haushofer's dream of creating a "Eurasian continental block."

The Western Allies' successful operation at Normandy doomed the Third Reich. Haushofer was arrested not long after the July 20, 1944, plot to assassinate Hitler—Operation VALKYRIE—after it transpired that his son Albrecht was associated with the conspirators. Karl Haushofer was released a month later, most likely owing to the intervention of General Franz Ritter von Epp, but the Gestapo later killed Albrecht Haushofer.

Not long after Germany's surrender, the International Military Tribunal in Nuremberg included Haushofer on its list of major war criminals; Chief Justice Robert H. Jackson went so far as to refer to him as "Hitler's intellectual godfather." But ultimately Justice Jackson spared Haushofer by failing to arraign him, and after interrogation Haushofer was allowed to return home. But by this time he was a broken man. Bereaved by the death of his favorite son, he lost all desire to carry on. On March 10, 1946, he and his wife committed double suicide by poisoning.

According to Herwig, Haushofer was blinded by a false sense of pride. As Herwig points out, the ultimate tragedy of Haushofer's life, as his son Albrecht noted, was that he "broke away the seal" to the Aladdin's lamp of geopolitics for Hess and Hitler and then "let the demon soar into the world." Haushofer found an eager pupil in Hitler, but did not appreciate adequately how his geopolitical concepts could be misused in a country that harbored an acute sense of grievance and revanchist aspirations after the humiliating Treaty of Versailles. Herwig's study illuminates the tragic story of Haushofer, and as such will be of great interest to students of geopolitics.

# THE UNITED STATES, CHINA, AND THUCYDIDES'S MANY, MANY TRAPS

Karl F. Walling

Destined for War: Can America and China Escape Thucydides's Trap?, by Graham Allison. Boston: Houghton Mifflin Harcourt, 2017. 384 pages. \$28.

Thucydides was a political pathologist, a student of political disease, especially as it occurs during war. This is most evident from his account of the plague in Athens. He describes the physical symptoms of the disease first, but then turns to its political effects, including the breakdown of the Athenian political order (Thucydides, *History of the Peloponnesian War*, 2.47–55). Thucydides's self-understanding as a political pathologist is also evident in his account of the civil war in Corcyra. He begins with just the facts: the Corinthians inserted a fifth column into Corcyra to incite a revolution, in which the oligarchic faction would overthrow the democracy. The quarrel polarized the community and escalated to a struggle of extermination—while the Athenians watched, callously, from their ships at the port in Corcyra. War is a harsh teacher that reduces most of us to the necessities that war imposes on us, Thucydides said, so no means, fair or foul, were off-limits during this civil war (3.70–85).

Human beings cannot help being moral creatures, however, so the different factions had to justify their atrocities to themselves and their followers. In the process, words began to lose their customary meaning. Anticipating George Orwell's famous account of "doublespeak," Thucydides showed the worst of the disease to be a breakdown of moral, political, and strategic judgment, with murder

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described as justice and crime as virtue. The desire for revenge was so powerful that it overcame the drive for self-preservation (3.82). The civil war was suicidal; alas, it spread to almost every city in ancient Greece, including Athens, and contributed to Athens's ultimate defeat at the hands of Sparta.

Little distinguishes Thucydidean from modern political science more than Thucydides's disdain for rational-actor models of politics and war. His greatest contribution may have been to explain the power of the irrational passions when violence is a constant threat. If the civil war in Corcyra is treated as a microcosm of the struggle between democratic and oligarchic cities in ancient Greece, it is an apt description of how belligerents under the pressures of war often lose their minds.

The civil war in Corcyra is just one of the many traps against which Dr. Thucydides warns us. As a pathologist he diagnoses symptoms of diseases; sometimes he explains their causes; occasionally he makes predictions, or prognoses, about the likely progress of the disease at hand. He almost never offers prescriptions to cure the diseases he identifies, however. He expected the same sort of pathologies to arise again and again, so long as human nature remained the same (1.22). He had a cyclical view of history. His answer to the question in the 1960s folk-rock anthemic lyrics—"When will they ever learn?"—almost certainly would have been "They never will." Individual cities and countries might fare better or worse from time to time; some might resist the temptations, even compulsions, that lead to mutually suicidal wars; but wisdom is not cumulative. As one generation learns from the suffering of war, another forgets. So we are condemned to go through this cycle without end.

In contrast, much of modern political science is Whiggish; that is, it embraces a progressive view of history. If one treats Thucydides's greatest translator, Thomas Hobbes, as the founder of this kind of political science, the genre certainly shares Thucydides's concern with political pathology. It too diagnoses diseases (such as Hobbes's famous state of nature as a state of war—a beginning point modeled clearly on Thucydides's account of the civil war in Corcyra). It too tries to explain causes and make predictions. But it does one thing Thucydides does not: it offers prescriptions. The first to explore in a systematic fashion the possibility of escaping Thucydides's many traps was Hobbes himself. Henceforward, the purpose of political science would be to escape the Thucydides-inspired Hobbesian state of nature as a state of war, although Hobbes admitted that this was possible only within a political community, not among them. So, the nature of international politics, as was true in Thucydides's age too, was characterized by a state of war.

Others were more optimistic. Take, for example, Alexander Hamilton, James Madison, and John Jay in the classic American work on federalism, republicanism, and constitutional government, the Federalist Papers. Although Thucydides is never mentioned in the text, his shadow hangs over the entire project, beginning with Jay's and Hamilton's accounts of the causes of war and the problems of federations in ensuring peace among their members and with other powers (essays 3–9, 11, and 15). The pathology they feared was that the American union would become like the Athenian-led Delian League, a tyranny of one state over the others, or would descend into anarchy among its members as foreign powers exploited their internal divisions, as happened to the Delian League when

Persia intervened at the end of the Peloponnesian War. And just as Thucydides attributed the downfall of Athens to the rise of demagogues, such as Cleon and Alcibiades, and the hyperpartisanship they exploited to serve their ambition (2.65), James Madison is famous for diagnosing partisan faction as the "disease" that commonly destroys free governments from within (essays 10 and 51). Again, human nature is the crucial constant. Eschewing almost all hope of curing the causes of faction in a free government, Dr. Madison advised treating its effects, or symptoms, in an extended republic whose pluralistic character would make it difficult for any one faction to tyrannize in its own name.

And others were even more optimistic about escaping Thucydides's multiple traps—the constant dangers of war and tyranny arising from, and aggravated by, the wildest passions of human nature. Immanuel Kant famously argued that republican (law-based) government is possible even for a nation of devils, if they have but reason. And if that was possible inside a state, it also might be possible among them, if they established something like a League of Nations or a United Nations to provide collective security. Friedrich Hegel even predicted an end of history, in which the world spirit would transform human nature and put an end to violent conflict. And at the end of the Cold War, Francis Fukuyama even claimed that, inside the West at least, the Hegelian end of history had arrived. Humanity soon might escape Thucydides's many, many traps.

Not so fast, some argued. History might return, perhaps with a vengeance. And so it did in the Balkans, Iraq, and Syria today, where every political disease Thucydides predicted would happen in civil war has recurred, but with the savage advantages of modern weaponry.

Now entering the fray comes Graham Allison in his latest book, Destined for War: Can America and China Escape Thucydides's Trap?, which is based on an earlier, provocative article in The Atlantic (September 24, 2015). Those familiar with Allison's distinguished body of scholarship know his question is rhetorical. Whether writing on the Cuban missile crisis or the dangers of nuclear terrorism, he always has combined a Thucydidean anticipation of recurring problems, such as military escalation, with a progressive aspiration to solve them, so far as they can be solved, at least in our own time. Precisely because the problems are rooted in human nature, they will never go away; they will increase or decrease in intensity depending on the political conditions of the age. They might be mitigated, however, by anticipating them and avoiding some of the errors in judgment that led to calamities in the past.

The calamity Allison fears most is what he calls the "Thucydides Trap": a situation in which a rising power's growth inspires such fear in an established power that it seems, inevitably, to lead to war (p. xv). To be clear, this is just one of many traps, or pathologies, Thucydides first diagnosed, but he did claim that the "truest cause" of the Peloponnesian War was the growth of Athenian power and the fear it inspired in Sparta, which compelled Sparta to go to war (1.23, 1.88, 1.118). Scholars differ on how precisely to translate and interpret Thucydides's understanding of the truest cause of the war. Did Thucydides mean the war was inevitable, and if so, what kind of inevitability was he talking about?

One might argue that even Thucydides did not believe in the Thucydides Trap as Allison defines it. What appears to be a clear and simple explanation of the causes of the Peloponnesian War is anything but. Wrote Carl Clausewitz, war arises from a clash of policies. If Athens insisted on challenging Sparta's power and if Sparta insisted on containing Athens, then yes, some form of conflict was inevitable. But these policies were not inevitable. Athens might have chosen not to try to expand its power further; Sparta might have chosen to accommodate Athenian aspirations; some sort of compromise might have been possible if they had made different political choices.

And here Greek tragedy, which was born shortly before and flourished most during the Peloponnesian War, can be helpful. Was Oedipus (whose hubris during a plague reminds some of Pericles) destined to kill his father and sleep with his mother? Sophocles's play Antigone is set after a terrible civil war—not unlike the one in Corcyra. Were Antigone and Creon destined to fight, and suffer, over their different views of the demands of political authority and religious conscience? Yes and no. Tragic inevitability is a result of both circumstance and character. There would have been no tragedy if Oedipus were not Oedipus or Antigone not Antigone. Oedipus was the kind of arrogant character who would make the sort of judgments that brought about his reversal of fortune, and Antigone and Creon were the sorts of self-righteous characters who would allow their conflict to polarize unto death.

Likewise, in international politics, as Thucydides well knew and Allison's book confirms, geopolitical circumstance is not destiny; the characters of potential belligerents matter, especially their willingness and ability to compromise. As Allison demonstrates, England was so fearful of the rise of Germany that it found ways to accommodate two other rising challengers, the United States and Japan, prior to the First World War, and avoided a war with them as a result (p. 85). So not all rising and established powers are destined to go to war with each other, but, as Allison also shows, it is difficult to see how hubristic ones like Athens and paranoid ones like Sparta can avoid it. Their national characters fed on each other, aggravated their enmities, and made a difficult situation worse, perhaps even impossible to resolve without war.

In many ways, Allison is following in Thucydides's footsteps. The structural situation of a rising China challenging the established power of the United States has to worry anyone who has seen this problem before. Whereas Thucydides

describes a microcosm of all war that is meant to diagnose the recurring pathologies of war as such, Allison's focus is far narrower, although his dataset is far bigger. Allison gathers evidence from sixteen different case studies in which the structural features of a clash between a rising and an established power are apparent. These range from the Peloponnesian War to the First World War to the Cold War. In twelve out of sixteen cases, war has been the result. No one who has studied the history of war in the twentieth century and beyond can rest easy about this. The First World War destroyed four great empires in Russia, Germany, Austria-Hungary, and the Ottoman caliphate. It set England and France on a path of irrecoverable decline as great powers. And it established conditions for totalitarian government to arise in Europe and the Second World War to begin. The subsequent clash between the Soviet Union and the United States threatened humanity with nuclear extinction. Exactly why the Cold War did not escalate to a mutually suicidal war like the Peloponnesian War is not yet clear and is bound to be much disputed, but China is rising so quickly, and it has so many people and so much wealth, that it seems likely to make the Soviet Union's challenge to the United States pale in comparison.

That does not mean war between the United States and China is inevitable; rather, it reveals the imperative to do all that is possible to ensure that it does not become so. This is the spirit in which Allison's book was written and the spirit in which it should be received (pp. 235-40). Thucydides scholars may cavil over particular passages Allison cites. China scholars may dispute some of his data. And, of course, specialists are bound to question his reading of the sixteen cases in his database, as well as why he chose those cases instead of others. Still others will warn of the dangers of historical analogies that abstract from the unique features of antagonists. Fair enough; but we ought not to lose sight of the forest for the trees.

The great question is how to uphold American rights and interests, yet not go to war with China (pp. 3-24). Allison supplies some helpful ways to begin to develop an answer. He gives us not a recipe book full of answers but a set of questions, or what he calls "clues for peace"—a research agenda, so to speak, for the twenty-first century (pp. 187-213). It belongs to us, students and faculty at war colleges especially, to follow the clues—some of which might be false—and to develop the answers that fit our time.

Allison does point to some Thucydidean pathologies we would be foolish to leave out of our answers, however. One is the tendency toward hubris in many rising powers and toward paranoia in many established ones. That is a very bad mix. He documents the hubris in the character of Kaiser Wilhelm II (and many other Germans) and the rise of anti-German sentiment in England on the eve of the First World War. He also shows that, ironically, Germany before the First World

War feared the rise of Russia just as much as England feared the rise of Germany, but with the difference that the Germans developed a strategy of preventive war to address the challenge from Russia. They planned to start a war before it was too late, just as Sparta opted to go to war with Athens before it was too late to resist its growing power (pp. 63-83). As the cataclysm of the First World War demonstrates, the escalation natural to war makes preventive wars opportunities well squandered. Starting a war to avoid a war is just too dangerous, especially when a rival has nuclear weapons (pp. 207-209).

This, after all, is one of the key insights of the Athenians in the Melian Dialogue. Precisely because Thucydides was a pathologist, modern realists often take what Thucydides understood as diseased to be something natural, even healthy, like the Athenians' famous observation that "the strong do what they can while the weak suffer what they must" (5.89). Properly understood, Thucydides was diagnosing hubris in the Athenians, not endorsing their example. Of greater significance is what the Athenians said immediately before this passage: that justice, understood as some form of restraint in international politics, is "only in question between equals in power," or, more literally, between equals in their power to compel (through their capability to destroy each other) (5.89). Perhaps some powers are capable of self-restraint absent external compulsion, but the Athenians anticipated what became the cardinal doctrine of the late Cold War: mutual assured destruction. Had Athens and Sparta known before their war began that it would result in the destruction of the Athenian empire and the irrecoverable decline of Sparta, perhaps neither would have gone to war. We know for certain and well ahead of time that a war between the United States and China could destroy them both. On the basis of that pessimistic premise from the Melian Dialogue, perhaps one might begin to build a system of mutual restraint for the United States and China.

Those who follow Allison's path in seeking to avoid Thucydides's diverse set of traps might do well to remember that the American founding was in many ways an effort to escape those traps, a practical application of republican security theory meant to build a security community in North America in which the member states were neither warring nor preparing to war against each other. Alas, despite the best hopes of the authors of the Federalist Papers, neither demagoguery nor hyperpartisanship has disappeared from politics in Europe or America. The Madisonian system of treating the effects rather than the causes of faction clearly has its limitations. When combined with nationalist sentiments, hyperpartisan demagoguery might get out of control, just as it did in Athens, and divide members of the West among themselves, thus producing the sort of international anarchy an outside power might seek to exploit. Under the influence of its demagogues, Athens self-destructed, in part by exploiting its allies, thereby

driving them into rebellion. Pericles stated on the eve of the Peloponnesian War that Athens had a strong chance of weathering the gathering storm if it retained control of the sea and managed its alliances well (2.65). This is probably true for the United States too. So long as it can avoid strategic overextension and lead its allies without dominating them, the United States ought to be able to generate sufficient loyalty among its allies to deter war while doing everything possible to make cooperation in China's best interest. But woe unto the Americans if they undermine, or allow others to jeopardize, the system of alliances on which they based their security in the aftermath of the Second World War.

Allison has written an important book, one destined to be debated as much as Francis Fukuyama's The End of History and the Last Man (1992) and Samuel Huntington's The Clash of Civilizations and the Remaking of World Order (1996). Those who take it as a point of departure might consider therefore a different reading of the causes of the Peloponnesian War. What if both Sparta and Athens were revisionist powers, with Sparta seeking to revise the structure of power in ancient Greece to where it was before the Persian Wars, when Sparta was the undisputed hegemon in ancient Greece? Might that analogy fit China today, with its young leaders yearning for past hegemony before the European empires exploited its internal weaknesses in the nineteenth and early twentieth centuries? And what about the United States? On the back of the American dollar bill, underneath the pyramid, is a Latin phrase, Novus Ordo Seclorem, "new order of the ages." From its inception, the United States has aimed to be a revolutionary power in world affairs, although with much debate on whether the global revolution would come about from following the American example (what we call soft power today) or by force of arms (in crusades for freedom). After the end of the Cold War, when enlargement and engagement became catchwords for American foreign policy, one might argue that the United States was anything but a status quo power. In time, it chose preventive war in Iraq. And it sought regime change elsewhere, too, which must have frightened regimes that Americans had not yet sought to change. Small wonder that they push back.

The worst nightmare for the twenty-first century is not one but two revisionist powers, China and the United States, each struggling for hegemony. On the eve of the Peloponnesian War, Pericles told the Athenians that he was "more afraid of our own blunders" than of the Spartans (1.144). As George Kennan indicated long ago, Americans too might become their own worst enemies. While containing the Soviets, they needed to learn to contain themselves, lest they cause the war they meant to prevent. With respect to China, that insight is more relevant than ever.

# **BOOK REVIEWS**

## **EVERYTHING OLD IS NEW AGAIN—EXCEPT WHAT'S NEW**

Japan's Security Renaissance: New Policies and Politics for the Twenty-First Century, by Andrew L. Oros. New York: Columbia Univ. Press, 2017. 320 pages. \$90.

Andrew Oros, director of international studies at Washington College, opens his new book provocatively, proclaiming that in security policy "Japan is back." He then describes a series of government decisions made in the last decade that indicate a shift away from Japan's postwar reliance on soft power and economic diplomacy toward a more pragmatic and militarized national security posture.

Oros uses the Western European Renaissance as a self-admittedly imperfect framework for understanding the threshold-crossing transitions that have taken place within Japan's incremental evolution. He draws four general parallels between the two renaissances. First, both situations blossomed after cultural taboos were challenged in public. Second, both were directly related to changes in the global order. Third, just as Western Europe's Renaissance was entwined with a growth in interest in the region's classical legacy, many groups in contemporary Japan are reevaluating their views of history, particularly their perspectives on the nation's military and cultural accomplishments. Finally,

both transitional eras were marked by significant advances in communications technology that enabled a more rapid exchange of ideas and greater access for previously marginalized sections of society to participate in political discourse. In Europe, this technology was the movable-type printing press; in Japan, it is Internet-based social media.

A decade ago, Richard J. Samuels's Securing Japan: Tokyo's Grand Strategy and the Future of East Asia (Cornell, 2007) described the nascent formation of a new political consensus in Japan under which realpolitik policies would supplant the long-standing Yoshida Doctrine as the nation's predominant security paradigm. Oros's book focuses on the years since the publication of Securing Japan, a period bookended by Shinzo Abe's terms as prime minister, to describe a Tokyo where such a consensus has taken hold and the security community now partakes in "a level of realistic and practical discussion of Japan's defense needs unimaginable in previous decades." Japan's Security Renaissance analyzes elements of this new consensus, including a series of decisions ranging

from the 2007 establishment of the Ministry of Defense, the 2009 development of Japan's first overseas military base, the 2014 relaxation of arms-export controls and a constitutional reinterpretation to allow the limited exercise. of collective self-defense, and the 2016 security legislation, to the continued buildup of advanced defense systems.

The book also makes the important point that this shift in thinking is not confined to a handful of leaders or a single political party, but is influential across major parties and throughout much of Japan's policy community. Oros explains that these changes arrive in a context in which Japan is viewed as a declining power in Asia, and are underwritten by three historical legacies: contested memories of imperial Japan and the war, postwar antimilitarism, and the unequal nature of the alliance with the United States.

Organizing the book into six chapters, Oros presents his argument in scholarly, but never pedantic, writing. The reader is impressed by the author's knowledge and benefits from his large network of informed Japanese contacts. In addition, his argument is both convincing and of considerable significance, given that in the same decade the Asian security context has grown more complex. The author's largely positive conclusion discusses implications for Japan, the United States, the Asia-Pacific region, and the rest of the world.

Oros also hints, however, at potential uncertainty and risk ahead. Contemporary students generally view the European Renaissance in a positive light, as it gave rise to new ways of thinking, including the empiricism

that in turn sowed the seeds for the Enlightenment. However, a thorough analysis of the Renaissance shows that the process was also painful, as seen in the wars of religion that ravaged Europe in the seventeenth century. While Oros does not venture a value judgment, he cautions the reader to consider some of the more disturbing possibilities this new renaissance may bring for Japan, the United States, and Asia's delicate security balance.

The book is not without its faults. It includes a chapter of theoretical reflections that seems a bit misplaced. That chapter's discussions of political worldviews lack the foundational explanations needed by those without training in international relations theory, while the narrative descriptions of the subsequent chapters will disappoint academically inclined readers hoping to learn Oros's thoughts regarding the conceptual implications of Japan's new security posture. Perhaps a more vexatious complaint is that the author relegates valuable information and analysis to endnotes, which forces the reader to flip pages continually or risk missing some of the book's most insightful facts and assessments.

Still, this book will stand out as one of the most important studies of the Japanese security landscape published in English in recent years. A highly readable treatment of Japan's last decade, Japan's Security Renaissance provides a useful starting point for those seeking to understand what is going on in Japan and an essential read for specialists keeping track of the many changes in Asian security dynamics.

JOHN BRADFORD AND MATT NOLAND



The Field of Fight: How We Can Win the Global War against Radical Islam and Its Allies, by Michael T. Flynn and Michael Ledeen. New York: St. Martin's, 2016. 208 pages. \$26.99.

General Michael Flynn rose from relative obscurity to become President Donald Trump's first national security advisor—only to be forced to resign just thirty-four days after Trump's inauguration. While Flynn's White House tenure was brief, his views align with those of Trump's inner circle—few of whom have public writings of their own. Flynn's 2016 book Field of Fight—part memoir, part strategic vision—therefore provides insight into a White House that eschews foreign policy conventions. Unfortunately, what Field of Fight offers is a breathless portrayal of global conspiracies and civilizational clash with Islam, and policy recommendations not developed much beyond slogans.

Michael T. Flynn is a career Army intelligence officer (also an alumnus of the Naval War College and a Middletown, Rhode Island, native) who reached the three-star rank of lieutenant general. His coauthor, Dr. Michael Ledeen, has authored numerous books and articles on U.S. Middle East policy. The two are listed as coauthors, but the book is written in Flynn's first-person voice throughout.

The first third of Field of Fight is a memoir of Flynn's career. Of greatest interest are Flynn's assignments in Iraq and Afghanistan, among them serving as chief of intelligence for General Stanley A. McChrystal. By all accounts, Flynn played a key role in developing intelligence-led, quick-exploitation

operations. Flynn sketches his innovations, offers a few stories, and trumpets his "mayerick" nature and dislike of rules. There are few new insights, however. Those interested in the operational angle will find better treatments in recent books by James Kitfield and Sean Naylor or McChrystal's memoir.

The book then shifts to the global threats facing America. And a threatening world it is, as Flynn and Ledeen see imminent existential challenges from terror groups such as ISIS and Hezbollah, plus rogue nations such as Iran, Russia, North Korea, China, Venezuela, Cuba, and Bolivia. They contend that these actors—Sunni and Shia, Levantine and Latin—cooperate as an anti-U.S. axis. While dissimilar states and groups do sometimes have operational links—e.g., cooperation on sanctions busting—the book's portrayal of an axis is overdrawn. Moreover, Flynn seems to use loudness of rhetoric rather than capability to measure threat. Near-peer China is ignored, while worries about basket case Venezuela are raised several times.

Flynn considers "radical Islam" the primary danger, in that losing the fight literally would mean the U.S. government overthrown, ISIS's flag over the White House, and 350 million Americans either converted or beheaded. Tautologically true, perhaps, but laughable as serious threat assessment (one recalls the 1984 movie Red Dawn). The definition of radical *Islam* is slippery, but Flynn and Ledeen place Iran squarely at the center. They contend that the Shia-Sunni divide, let alone ethno-national differences, means little. ISIS and Al Qaeda are portrayed as generally collaborating with senior

partner Iran. (Who, then, has been fighting in Iraq and Syria is not clarified.) Flynn claims to distinguish between radical Islam and Islam as a whole, but repeatedly blurs that line, building to a four-page jeremiad on the "spectacular failure" of the "Muslim world" writ large.

Flynn's ultimate strategic concept is that the United States ought to foster a theological "reformation" of Islam. Problems with the parallel aside—the Christian world engaged in global conquests after the Reformation—Flynn recognizes that the goal is aspirational. Our near-term approach should be mostly political, he writes. While Flynn emphatically wants to "take the gloves off" counterterror operations, he opposes regime change by military means, as occurred in Iraq and Libya. Instead, top priority would be political support of Iranian opposition groups (coauthor Ledeen long has claimed the Iranian regime could be brought down rapidly, à la 1989 in Eastern Europe). Overall, Flynn's campaign plans are vague and contradictory. The threat is imminent and requires World War II-style military mobilization, yet it will involve a decades-long competition of ideas. Promoting liberty and democracy is the key, but the United States should back strongly such autocrats as Egypt's Abdel Fattah el-Sisi (Flynn is curiously opaque about the Saudis, and ignores Turkey's Islamist government).

Field of Fight was written after Flynn became a contributor to Russia's RT network and appeared with Vladimir Putin in Moscow, among the Russia connections that eventually triggered his resignation. Yet Flynn's book has few kind words for Russia: Moscow is a leader in the anti-American axis, Putin is an aggressor, and President Obama failed to criticize Russia strongly enough. There are hints, though, that Flynn sees potential for rapprochement. He says Russia's true interest would be to join the United States against Iran and radical Islam, but Russian leaders suffer confusion from ingrained anti-Americanism and a dearth-Flynn asserts—of expertise on Islam. There is no suggestion that other "axis" members could be played against each other, nor much discussed regarding potential anti-Islamist allies such as India. Despite those hints, the tone of Flynn the author is hard to reconcile with the eager Russia outreach of Flynn the adviser. Perhaps the first-person voice obscures disagreement with coauthor Ledeen, who in his own works is dubious of Moscow probably the more realistic view.

Overall, the book is thinly sourced. Many claims simply are asserted, and the few references often point to bloggers, op-ed writers, or advocacy groups. The book makes no pretense of being scholarly, but even a general audience would benefit from more evidence-and more fact-checking. As one example, Flynn and Ledeen claim that seven to thirteen million people of Lebanese ancestry live in the Brazil-Paraguay-Argentina triborder region, whereas the correct number is around 25,000.

As a work of strategy, Field of Fight is forgettable. The literatures on jihadism, Iran, illicit transnational networks, etc., are replete with more-thoughtful, well-researched works. The recommendations seem more intended to back up campaign speeches than to support actionable plans. As a window into the Trump administration's national security thinking, the book provides value—but not much reassurance.

DAVID T. BURBACH



Designing Gotham: West Point Engineers and the Rise of Modern New York, 1817-1898, by Jon Scott Logel. Baton Rouge: Louisiana State Univ. Press, 2016. 280 pages. \$45.

The idea of civil-military relations generally is framed in terms of the relationship between the government of a state and the military that serves that state. Whether the construct is the objective control posed by Samuel Huntington or the unequal dialogue of Eliot Cohen, the discussion largely focuses on how the civilian sector influences the actions of the military. In his new volume, Designing Gotham, Jon Scott Logel offers a window on a long-neglected aspect of the relationship: how the military wields influence in civilian society.

The book begins with an interesting account of the rise of Sylvanus Thayer and his vision for refashioning West Point into the first institution of higher education in the United States dedicated to teaching the principles of engineering. Professor Logel also discusses the inherent tensions between Thayer's narrow view of a curriculum focused on military engineering and the public clamor of the Jacksonian era for West Point to graduate engineers trained in civil engineering. The compromise solution—adding a limited number of civil-engineering courses to the program at the academy—set the stage for the influence of West Pointers on the development of New York City. It is the influence of these men that forms the core emphasis of the book.

Through a series of well-crafted chapters, Logel describes the influence of U.S. Military Academy graduates on both the professionalization of engineering and a series of projects

that helped shape modern New York. Tracing the progress of these public works, the chapters also trace the social and political changes in the relationship between the military-trained engineers and the civilian society in which they moved. The dramatic increase in political involvement by these officers after the Civil War is another subtheme. Weaving these ideas together, the book offers an interesting social history of the effects these military men had on New York society and the effects society had on these West Pointers. The cast of characters is populated with men made famous by the Civil War, such as George B. McClellan and Fitz-John Porter, as well as more-obscure graduates such as Egbert L. Viele and John Newton, who arguably were more important in the development of the city's infrastructure.

The author does not delve deeply into the details of the engineering projects. This is not necessarily a shortcoming, as the development of engineering as a profession, not its development as a science, is a theme of the work. If the book has a weakness, it is the graphics. The only maps are reproductions of Viele's famous "Water Map" of 1865 and his plan for Central Park. A map highlighting the various projects might have been more valuable than the common, recognizable photos of Porter and McClellan that are included.

Jon Scott Logel has offered a unique perspective on the relationship between civil society and the graduates of West Point. His insights remind us that, while our civil government controls the military in the United States, our military institutions have a powerful influence on our society—recognized or not.

KEVIN J. DELAMER



Duel au large: La guerre de Sécession devant Cherbourg (19 juin 1864); Enquête et récit, by Jacky Desquesnes. Condé-sur-Noireau: Éditions Charles Corlet, 2014. 247 pages. \$20 paperback.

Jacky Desquesnes's book on the Civil War naval battle between CSS Alabama and USS Kearsarge is a useful contribution to understanding that event. The book's publication coincided with the 150th anniversary of the battle, an event the French press covered extensively in a nationally circulated magazine, L'express, and well-known regional newspapers such as La Manche libre, La presse de la Manche, and Ouest-France. Although the book was published in France more than three years ago by a regional publisher, it seems to have been ignored entirely in the United States and by American naval historians. At the time of this review's writing, WorldCat showed only one library in the United States that had acquired a copy: Harvard University's.

Numerous other books deal with this subject—in English. The author has used most of the standard American documentary sources in print, as well as the digital materials now available online. Among these are the Official Records of the Union and Confederate Navies in the War of the Rebellion and the published memoirs of the participants, plus one unpublished memoir from the collection at Mystic Seaport. While the author does not cite all the published secondary sources in English that he might have used, the book's importance is in its use of French sources that American scholars have consulted only rarely. Chief among these are the reports of the battle in the local and

national French press and the archives of the French navy (series BB4 1346).

Desquesnes, currently a lecturer at the Université populaire de Caen in Normandy and formerly a regional inspector of pedagogy, has placed his subject in the wide context of the Civil War, Franco-American relations, international law, and the concept of the duel. Many people at Cherbourg observed the action, and their impressions appeared in the popular press. In French eyes, Raphael Semmes seemed a gentleman who fought the battle like a classic duel, and the press popularized this metaphor, which the maritime prefect at Cherbourg used to describe the action as he observed it.

In his closing chapter, Desquesnes makes an important contribution in discussing the cultural afterlife of the battle in memory and commemoration. In this, he places Édouard Manet's masterful painting of the event within the wider context of the popular images of the day. He goes on to discuss the local monuments, mentioning the unknown grave site at Cherbourg of William Carpenter of Alabama and the surviving and restored monuments of George Appleby, William Gowin, and Edward King, along with the commemorations held there over the years. Interestingly, he points out connections that have developed among these sites and those of American war dead in other parts of France, from John Paul Jones's sailors at Nantes to those lost in the First World War. The volume ends with a brief discussion of the work of Captain Max Guérout of the French navy, the CSS Alabama associations in Washington and Paris, and the underwater archaeology that led to the recovery of many objects from the wreck of Alabama.

Jacky Desquesnes's volume makes a useful contribution to the literature. one that deserves to be read more widely by American naval historians. It is also a reminder of the value and importance of the insights for naval history that are readily available in other languages, but too often are overlooked.

JOHN B. HATTENDORF



NATO and the North Atlantic: Revitalising Collective Defence, ed. John Andreas Olsen. Whitehall Paper 87. London: RUSI, released by Taylor and Francis, 2017. 104 pages. \$13.55 paperback.

As Russia's naval posture and its restored naval and air capabilities have become more evident, the North Atlantic has reemerged over the last couple of years as a hot topic for researchers. For two decades the region and the idea of highend naval threats to the NATO allies were almost entirely off the table, but the North Atlantic has reemerged as a key topic in NATO headquarters as well. Both the Wales Summit Declaration (2014) and the Warsaw Summit Declaration (2016) bring forward the North Atlantic as a renewed area of concern.

However, NATO and American allies largely lack the capabilities to deal with the increased threat that Russia's new and modernized capabilities pose. Russia's long-term intentions are difficult to assess, and most likely will change over time anyway. Still, there are some geopolitical constants, and it is possible —and important—to notice, keep track of, and understand the current threats and potential future ones as they evolve. Naval and air capabilities take a long time to develop, with regard to both

technology and competency. Naval strategists and readers should reconsider this reemerging challenge, and several new reports from think tanks in the United States and the United Kingdom provide a good starting point.

Highly recommended are the following recent publications: "Updating NATO's Maritime Strategy" (Atlantic Council, 2016); Undersea Warfare in Northern Europe (CSIS, 2016); NATO and the North Atlantic: Revitalising Collective Defence (RUSI Whitehall Paper 87, 2017); and "Forgotten Waters: Minding the GIUK Gap" (CNAS, 2017). Each of these is beneficial, but readers should note especially the present book under review, NATO and the North Atlantic. It is edited by John Andreas Olsen, contains a foreword by Philip M. Breedlove and an introduction and conclusion by Olsen, and consists of six chapters.

Olsen is an experienced book editor, always getting high-level experts on board his projects. For this project he has created a good team of experienced North Atlantic and Russian military experts from both sides of the Atlantic. The book connects historical and geopolitical military perspectives with more-current "post-Brexit" consequences and modern hybrid threats.

In his chapter, "The Significance of the North Atlantic and the Norwegian Contribution," Rolf Tamnes brings back the classical "bastion concept" for the protection of Russian strategic submarines. Even though nuclear deterrence has been off the radar of academics and strategists for a couple of decades, it has always "been there." We clearly should give more attention to this fact, and try to understand and appreciate how the nuclear deterrence forces of

today shape how the great powers play, be it in Ukraine, Syria, or elsewhere.

As John J. Hamre and Heather A. Conley argue in their chapter, "The Centrality of the North Atlantic to NATO and US Strategic Interests," the North Atlantic is in fact the ocean that physically and metaphorically binds North America and Europe together. The book's focus and main themes are intended to explain this to readers and to argue that NATO must retain the capability to secure freedom of maneuver across the sea and keep the waterways between the continents open for reinforcement and resupply of matériel and personnel in times of peace, crisis, and war. The alliance, as a guarantor of national sovereignty and territorial integrity, must be prepared to counter any potential threat to the North Atlantic Ocean.

As do the studies recommended above on Russia and the North Atlantic, this project clearly points out Russia's increasingly provocative rhetoric and behavior over the last few years. Coupling this with the fact that Russia has introduced new classes of conventional and nuclear attack submarines and is modernizing its Northern Fleet through the addition of long-range, highprecision missiles provides great reason for concern. The Russian navy could challenge NATO's command of the high seas, and thereby put both Europe and North America at existential risk.

The book argues that now is the time for NATO and American allies to get a grip on the strategically important North Atlantic Ocean, in addition to the current, very Eurocentric focus on air and land forces in the Baltic States and on Russia's land borders. The North Atlantic is in fact the northwestern part of the current NATO 360 perspective,

but it needs to be reckoned as such. The challenges in the North Atlantic are of a very different nature from those NATO experiences in the east and south, but no less important. Arguably, in the longer perspective, these high-end threats may prove existential, and need to be acknowledged. It takes a long time to develop the countertechnologies and expertise necessary to meet Russia's modernization of its submarines and missile systems. Fittingly, the last chapter before the conclusion and recommendations is Admiral James Stavridis's "The United States, the North Atlantic and Maritime Hybrid Warfare."

In the concluding chapter, Olsen offers some clear recommendations, arguing that NATO should renew its maritime strategy, reintroduce extensive maritime exercises and sustained presence, reform its command structure, invest in maritime capabilities and situational awareness, enhance maritime partnerships, and prepare for maritime hybrid warfare.

Overall, this book provides an excellent starting point from which to start discussing the North Atlantic challenges that are emerging as the Russian naval (and air) forces continue to make considerable progress toward modernizing for the future.

GIERT LAGE DYNDAL



The Leader's Bookshelf, by Admiral James Stavridis, USN (Ret.), and R. Manning Ancell. Annapolis, MD: Naval Institute Press, 2017. 272 pages. \$29.95.

The Leader's Bookshelf is unique in its style and structure and outstanding in its personal and confident presentation. There are literally hundreds of books on leadership, including memoirs of former CEOs, guidebooks to leadership from professional athletes, and personal commentaries from men and women who have succeeded in their fields of business, education, politics, and government; but this presentation is different. Admiral Stavridis, whose culminating military assignment was as supreme allied commander at NATO, and his highly competent coauthor, R. Manning Ancell, have designed a wide-ranging collection of books and essays within a relatively brief volume that exudes commitment to meeting the challenges of leadership and confidence regarding the qualities necessary.

The content and structure of the book are what make it different, especially worthwhile, and a great reading experience. The method taken was to invite each of fifty different military leaders to recommend his or her favorite book on leadership and explain the reasons for the choice. The coauthors add brief comments about the book's author and the book itself, and select brief quotations and passages from the recommended work. But the heart of the work is the "Leadership Lessons Summarized," which are developed and summarized by Stravridis or Manning. Suffice it to say, the quality and value of these lessons learned are truly inspiring.

The range and diversity of the fifty recommended books are remarkable. Military leaders, mostly contemporaries and colleagues of the coauthors, have recommended authors and books as varied as Rudyard Kipling's Captains Courageous and William Manchester's Goodbye, Darkness: A Memoir of the Pacific War. The recommended authors include Carl von Clausewitz, Sun

Tzu, Mark Twain, S. L. A. Marshall, Harper Lee, Thomas L. Friedman, H. R. McMaster, and dozens more. This book can be a great companion on deployments—it can be rejoined quickly after interruptions.

While the fifty presentations are the heart of the book, much more is included that is highly valuable but unfortunately not discussed widely and presented only infrequently. These five brief chapters—"Reading Lists," "Writing and Publishing," "What Young Leaders Are Reading," "Building a Personal Library," and "Reading and Writing: The Big Lessons"—are the "secret passages" to success, clues to how not just to get promoted but to live an enriched and meaningful life. These chapters show Admiral Stavridis's own passion and commitment to his profession and his important, mentor-like dedication to midrange professionals who aim high and try harder to become great leaders.

"But wait, there's more!"—a bonus, so to speak. An afterword offers an important discussion of how more-formal literature, specifically poems and plays, can provide valuable leadership lessons. In "A Play and Two Poems," Admiral Stavridis writes (p. 259), "In terms of impact, word-for-word, a beautifully crafted poem can deliver the most meaningful of reading experiences and provide startling insights for a reader. Plays, which are of course essentially scripts written to be performed in front of us, often give us powerful voices to listen to and therefore sharpen our leadership skills."

In a brief but brilliant analysis of *The* Persians by Aeschylus, William Butler Yeats's poem "The Second Coming," and Constantine P. Cavafy's poem "Sailing to Ithaca," Admiral Stavridis describes the intense and deep revelation of meaning

attained through creative literature and recommends the challenge of developing an active, creative imagination in reading intellectual literature as an important role of leaders. He writes (p. 266) that "in the end the very best effective leaders use hope to inspire us in the long voyages on which we all must sail. Poems and plays each have a role in helping leaders find their way not only to challenges, but to hope."

At a program sponsored by the Naval War College Foundation a few years ago, Admiral Stavridis commented that during his tour of duty as Commander, Southern Command, he arranged to be tutored daily in Spanish because he thought a better understanding of the language essential to the success of his mission. This was a singular commitment to effective leadership, just as *The Leader's Bookshelf* is a singular and valuable contribution to developing effective leaders.

JOHN J. SALESSES



A Tale of Two Navies: Geopolitics, Technology, and Strategy in the United States Navy and the Royal Navy, 1960–2015, by Anthony R. Wells. Annapolis, MD: Naval Institute Press, 2017. 264 pages. \$35

At its heart, this book both espouses the value of a global maritime strategy as seen from the perspective of two historically close allies, Great Britain and the United States, and acknowledges the enormous costs of maintaining one. It is not a history book, although it covers a historical period and provides context. It is more of a thematic illustration of the extraordinary measures necessary—across the entire span of professional

and political discourses—to nurture and maintain such partnerships. Above all, it highlights the need for trust: a shared understanding of goals and a willingness to cooperate at all levels that rises above what the author terms "the minefield of opponents, skeptics and those with ill-conceived agendas . . . who simply have little or no knowledge of the basics of maritime strategy." Given the current interest in enhancing naval presence and the consequent drive toward an enlarged naval fleet, this is a timely message and one that deserves careful consideration from naval professionals.

Anthony Wells is perhaps uniquely qualified for this work. As an intelligence specialist, he has served both in the Royal Navy (RN) in uniform and later for the U.S. Navy as a civilian analyst, and has been involved personally in much "special intelligence sharing at the most sensitive levels." His first chapter, by far the most valuable, outlines the political changes that took place during the 1960s and '70s, particularly in Britain, that fundamentally altered the way in which naval concerns were represented to Parliament. He explains that although both countries' defense establishments underwent considerable "centralization" after the Second World War, the loss of hundreds of years of naval influence in the cabinet of Great Britain caused by the sidelining of the First Lord of the Admiralty in 1946 in favor of the defense minister, and the eventual loss of the service ministries altogether in 1964, was immensely damaging to the maritime case. It is no coincidence, for example, that these years saw the reorientation of British defense policy away from global responsibilities and toward an exclusively northern European focus. This in turn led to the

demise of the RN aircraft carrier fleet and loss of RN influence "east of Suez." adding to the urgency with which the service sought partnerships with the only global player remaining, the U.S. Navy. Although similar "centralization" efforts were under way in Washington, Wells explains that the U.S. Navy was inherently better served, in that the crucial contact between senior serving officers and their political masters was preserved by virtue of the former's ability to testify to influential congressional committees. In this way, the maritime case continued and continues to be represented in Washington.

Throughout all these upheavals, the real saving grace was the professional links between the two navies that had been forged during the dark years of the world wars. The urgency of the Cold War competition with Soviet Russia and the need to know the opponent's plans years in advance meant that, to stay ahead, the burgeoning technological energy of the United States needed to be combined with the long-established human-intelligence resources of the United Kingdom. To effect this, both navies continued to talk, no matter what tensions were extant nationally and internationally at the time. As the Soviets increasingly emphasized their submarine fleet as a means by which to conduct nuclear bargaining, Wells was in a prime position to observe and record this exchange. In the remaining chapters he charts some of the high and low points by way of illustration: the acoustic refining of the nuclear submarine, the use of maritime forces to signal resolve during the Six-Day War of 1967, the damage caused by the Walker spy ring, and the extensive cooperation during the Falklands War in 1982, to name a few.

In the end, the sheer importance of the subject matter and its timely appearance will ensure wide readership of this book—which is a good thing. Wells, although fluent, is not an overly engaging writer, and the factual nature of the prose can result in quite a mouthful at times. That said, the work is well researched and accurate, although no doubt still limited by ongoing classification issues. Uncharacteristically, however, the normally flawless Naval Institute editorial process has allowed in a few grammatical errors and, in the Falklands chapter, a minor inaccuracy. The Argentines had four, not three, diesel submarines in 1982: two Type 209s and two old, ex-USN Balao-class Guppy II conversions. Of these, only one of each was serviceable, and ARA Santa Fe was of the Balao class (ex-USS Catfish), not a Type 209 as stated on page 147. Luckily, none of these errors detracts in any way from the theme being presented.

This book should be read and discussed by anyone with an interest in maritime strategy or the "special relationship" between the two countries. This special relationship endures, of course, and no doubt in a few years' time—once the ships of the Queen Elizabeth class and their F-35Cs are in service—the next chapter in this cooperative story will be told.

ANGUS ROSS



Hue 1968: A Turning Point of the American War in Vietnam, by Mark Bowden. New York: Atlantic Monthly, 2017. 610 pages. \$30.

The United States first committed combatsize units (battalions or larger) to the war in Vietnam in March 1965. In the

years that followed, as the United States assumed a greater role in the fighting, its forces in theater continued to grow. By early 1968, the United States had several hundred thousand troops in Vietnam.

Concurrently, North Vietnam's leadership was supporting a growing communist insurgency in the south—that of the Vietcong (VC)—the goal of which was to defeat South Vietnam and bring it under the North's communist regime. To accelerate this process, North Vietnam developed an elaborate plan to infiltrate thousands of North Vietnamese Army (NVA) troops into South Vietnam and, with the VC, capture and hold South Vietnam's major cities and U.S. and South Vietnamese military installations. No objective was given a higher priority than the old imperial Vietnamese capital of Hue.

The resulting Tet Offensive was, without exception, a battlefield loss for NVA and VC forces. However, Tet was a decisive communist victory on the political front: it turned the American public irrevocably against the war. America's support for the Vietnam conflict and its trust in its elected, appointed, and military leaders—already on shaky ground by early 1968-would become permanent casualties of the Tet Offensive and the battle for Hue.

In the early morning hours of January 31, 1968, the first day of Tet (the lunar new year), nearly ten thousand welltrained, dedicated, and motivated NVA and VC troops clandestinely moved from neighboring forested highlands into Hue. By noon, with the exception of a couple of Army of the Republic of Vietnam (i.e., ARVN) units and the Military Advisory Command, Vietnam (i.e., MACV) compound, the city was in communist hands. It would take nearly a month of bitter street fighting and thousands of casualties (the vast majority to civilians) to return the city to the control of South Vietnam's government.

Mark Bowden's day-by-day chronicle of the battle to retake Hue is detailed and precise and covers both sides. He closely follows Lieutenant Colonel Ernest "Big Ernie" Cheatham, the commanding officer of 2/5 (2nd Battalion, 5th Marine Regiment), whose area of responsibility was south of the Citadel and the Huong River—an expanse that included Hue University, the treasury building, the provincial headquarters, a prison, a hospital complex, and several other structures. Cheatham's basic tactic was to employ tanks, self-propelled "Ontos" antitank vehicles (each carried six deadly 106 mm recoilless rifles), bazookas, 81 mm mortars, flamethrowers, and gas to destroy the buildings across contested streets, while his young infantrymen prepared for the assault. It was an effective strategy: his rifle companies were able to advance. It took his battalion four days to fight from Route 1 to the Phu Cam Canal.

On the other side, Bowden focuses on VC lieutenant Hoang Anh De, commanding Battalion 55, who gave ground only grudgingly. Like many of his fellow NVA/VC leaders, as well as the senior leadership in Hanoi, he soon realized that the expected popular uprising was not going to happen. However, like his compatriots, he knew that the longer he could keep the battle in Hue going, the greater the political victory would be.

Combat operations for control of the city continued until nearly the end of February. Major Bob Thompson's 1/1 (1st Battalion, 1st Marine Regiment),

assigned the mission of retaking the Citadel on February 11, suffered nearly 50 percent casualties by February 15. Nonetheless, the battalion successfully fought from the north to the south Citadel walls, then west to retake the royal palace and its grounds. Outside the Citadel and to the northwest, elements of the U.S. Army's 1st Air Cavalry Division were assigned the task of attacking the NVA Front's command center in the village of La Chu. One battalion suffered 50 percent casualties in the effort; subsequent attacks prevailed as the communist forces initiated an orderly retreat.

While intelligence on the NVA/VC forces that captured Hue was not good, at least initially, Bowden nonetheless is critical of the senior leaders who failed to see the obvious. Of General William C. Westmoreland he writes, "Never had a general so effectively willed away the facts." Westmoreland simply refused to accept that the NVA/VC actually had captured the city. Bowden notes that the general "continually and falsely assured political leaders in Washington and the public that the city had not fallen into enemy hands." Brigadier General Foster C. LaHue, the commanding general of Task Force X-Ray (Marines), was little better, insisting that "there was nothing more threatening in Hue than a handful of snipers."

Bowden has crafted a comprehensive and accurate account of the battle to wrest Hue from the NVA and VC. In his source notes he writes, "For a journalist interested in history the sweet spot is about 50 years. Enough time has gone by for a measure of historical perspective and yet there remain many living witnesses." Bowden personally interviewed hundreds of them, in the process

crafting several compelling portraits of the junior Marines who faced their NVA/VC adversaries at very close range. The testimonies of large numbers of witnesses (in addition to unclassified and formerly classified reports from the National Archives, the Marine Corps Library at Quantico, Virginia, and other sources) serve to enhance the accuracy of the narrative. And from what this reviewer (who spent February 1968 in Hue with 2/5) can tell, the accuracy of Bowden's narrative is unquestionable. He has produced an excellent read of a defining period in our nation's history.

GEORGE HOFMANN



By More Than Providence: Grand Strategy and American Power in the Asia Pacific since 1783, by Michael J. Green. New York: Columbia Univ. Press, 2017. 760 pages. \$45.

In the fast-moving world of Washington, DC, capturing and conveying the context of policy choices challenge even the most committed national security professional. For busy senior officials, policy can seem to exist in historical isolation, with institutional memory rarely extending before the start of the current administration. Resources for understanding rarely address the contingencies and considerations that drove those who went before us.

Michael Green, author of By More Than Providence, confronted this problem as senior director for Asia on the National Security Council a decade ago. Arriving as an academic with a deep background in the region, he nonetheless was challenged to place proposed policy initiatives in the context of America's long relationship with Asia. On returning to academia, Green set out to write the book he wished he had had as a policy adviser. The result is an extraordinary overview of how America crafted itself as a Pacific nation, gaining its unique position in the region, as the title states, "by more than providence." Since its birth, America has been tied to the Pacific by "commerce, faith, geography, and self-defense" in a dynamic interplay of interests, hopes, and fears. The process of balancing these forces is the focus of Green's work, and his approach underscores the imperfect nature of any effort to address complex goals in a region of such diversity.

The overall U.S. policy focus historically has swung between Europe and Asia, with Europe benefiting from linguistic and cultural affinities among American elites. Within Asia, U.S. policy makers have cycled between China and Japan when prioritizing relations. These fundamental choices, still at play in the region, date to the earliest days of the United States. In considering this dynamic, Green benefits from his early academic career as a Japan specialist. In an increasingly China-focused field, this distinctive background allows him to place America's critical relationship with Japan in proper context and provides an antidote to recent works that place too much emphasis on China issues.

Even well-read naval professionals will be struck by the central role that maritime issues and the U.S. Navy play in the narrative. From the creation of the first USN Pacific squadron in 1821, naval leaders have been a key outward face of the nation to the region and one of the constant interlocutors in internal U.S. debates. Indeed, Green credits Mahan with articulating the first comprehensive U.S. grand strategy for the Pacific region, tracing his influence through to the present. More recently, the Reagan administration's Soviet-focused Maritime Strategy had its intellectual roots firmly in the Pacific as the then Commander in Chief, Pacific Fleet, Admiral Thomas B. Hayward, sought to address a growing Soviet Pacific Fleet. Hayward moved on to become Chief of Naval Operations and, paired with John Lehman as Secretary of the Navy, pushed the strategy into global execution. Naval professionals versed in military history and security issues will benefit from the book's integrated and thoughtful discussion of economic and cultural ties.

By More Than Providence provides a balance between conceptual argument and the details of historic events. For example, while placing Nixon's opening to China in broad context, Green also provides an excellent articulation of the assumptions behind the negotiation and signing of the Shanghai Communiqué. His personal experience in the policy arena has given him a sympathetic ear for the challenges our predecessors faced and their often-imperfect efforts. There is criticism of many decision makers across numerous eras, but always tempered with a welcome sense that meaningful statecraft is simply hard. Despite that fact, America has achieved and sustained a unique position in the Pacific. Green's sense of contingency that events could have unfolded very differently and the U.S. position in the region might be weaker or nonexistent -presents the American reader with a clear if implied challenge: how to maintain this legacy going forward.

At well over seven hundred pages and exquisitely sourced with notes and comments, By More Than Providence

represents a substantial investment of time and effort for the thoughtful reader. It is, however, an essential book for any naval professional who wants to understand what lies in our wake before charting our course in Asia.

DALE C. RIELAGE



The Silent Deep: The Royal Navy Submarine Service since 1945, by Peter Hennessy and James Jinks. London: Penguin, 2015. 864 pages. £30.

The Silent Deep is a tell-all history of the Royal Navy's submarine service since World War II. The authors were granted almost unlimited access to Royal Navy (RN) historical files of submarine operations. The discussion of formerly classified operational surveillance patrols off the North Cape of Norway and of the trailing of Soviet nuclear-powered attack submarines (SSNs) and nuclear-powered ballistic-missile submarines (SSBNs) is eye-opening. As a former USN submarine commanding officer—and a veteran of eight covert surveillance operations in the Pacific during the Cold War—I was stunned to read about British submarine operations in the "other ocean."

The book is much more than that, though. It begins with a description of the "Perisher" (slang name for the Submarine Command Course), a demanding five-month-long training program for potential submarine commanding officers. Successful graduates normally go on to command; those dropped for lack of demonstrated ability generally leave the submarine service.

The authors describe the startling effect on the Royal Navy of gaining access to German submarine technology

at the end of World War II and the ensuing revelation of the very advanced submarines that were being prepared to attack Allied warships and shipping. The German Type XXI high-speed, longendurance, diesel-electric submarine was arguably the first modern submarine—a truly submersible warship. By the war's end over a hundred Type XXIs were working up in the Baltic Sea, but they made no operational patrols. In fact, only one operational patrol was made by a boat of this class—*U-2511*—and the war ended before it could make an attack. (A number of Type XXIIIs, the smaller clones of the Type XXIs, did make operational patrols and sank nine ships without loss to their own ranks.)

The Type XXI boat was the model for postwar development of advancedcapability diesel-electric submarines in three navies: the British Porpoise class, the Soviet Whiskey class, and the American Tang class.

Another German revelation was the Walther boat, a hydrogen peroxidefueled true submarine, which had not yet become operational. A captured Walther-class submarine, U-1407, was commissioned as HMS Meteorite, and its trials led to the construction and commissioning of HMS Excalibur and HMS Explorer, both powered by Walther-cycle machinery. They turned out to be a dead end, however, as technical problems and financial concerns ended the experiments.

The authors also cover the Royal Navy's first looks at nuclear power for submarines and its temporary abandonment in favor of the Walther-cycle propulsion plant. When that avenue proved fruitless, the Royal Navy then turned to the United States-which had

put the first nuclear-powered submarine, USS Nautilus (SSN 571), to sea in 1955. In a major exercise named RUM TUB in October 1957, Nautilus showed convincingly that RN antisubmarine warfare ships and aircraft were totally unable to detect and track an SSN, owing to its almost unlimited endurance.

The British decisions to acquire SSNs and subsequently SSBNs are discussed in separate chapters, each offering an in-depth look at the design, engineering, management, and political aspects of the respective programs.

The Falklands War of 1982 offered an opportunity for the Royal Navy to employ SSNs in a limited-area, limited-combat role. The Royal Navy's SSNs were the first British warships on scene after the Argentine invasion of the Falkland Islands. They provided essential surveillance and intelligence reporting about Argentine forces. On May 2, 1982, HMS Conqueror sank ARA General Belgrano, an Argentine navy light cruiser, south of the Falklands. That sinking effectively drove other Argentine navy units back inside their twelve-mile limit, a boundary British SSNs were not allowed to penetrate—a political constraint the British placed on themselves, and one that was very frustrating to SSN commanding officers who were anxious to engage Argentina's aircraft carrier, which posed a significant threat to the British surface task force. The reviewer was fortunate to have had lunch recently with HMS Conqueror's navigating officer and to query him directly about the decision of Conqueror's commanding officer to use Second World War-vintage Mark 8 torpedoes instead of the much more advanced Mark 24 Tigerfish torpedoes—a decision discussed in the Falklands chapter.

Subsequent chapters deal with the complicated internal British politics of upgrading the Royal Navy's submarine deterrent force from Polaris to Poseidon, and finally to current-day Trident missiles, as well as the continuing operations vis-à-vis Russia.

This is an outstanding book, well researched and ably written. I highly recommend it for anyone interested in submarine operations or antisubmarine warfare or both. It is a must-read.

IOHN F. O'CONNELL



21st Century Gorshkov: The Challenge of Sea Power in the Modern Era, ed. Kevin Rowlands. Annapolis, MD: Naval Institute Press, 2017, 192 pages. \$21.95 paperback.

The published works of Soviet fleet admiral Sergei Georgiyevich Gorshkov, whose naval career spanned three decades, are ostensibly the subject of this volume edited by the Royal Navy's Kevin Rowlands. Yet the book also could serve as a blueprint for increasing naval prestige, power, and influence. Through the focus on Gorshkov's writing, the reader is afforded an insider's view of the Soviet navy's post-World War and Cold War-era growth. At the same time, Rowlands is interested in how consideration of Gorshkov can help inform questions about the future roles and uses of naval force.

Admiral Gorshkov graduated from the Frunze Naval School in Leningrad in 1931 and showed early promise as a naval officer. His role in the Second World War was as impressive as his peacetime advancement. Unlike many of his peers, Gorshkov not only

achieved great responsibility as a young officer but was able to weather the many changes in the Soviet political environment and emerged as a leading practitioner and theorist of Soviet naval strategy. In essence, Admiral Gorshkov's performance as a naval officer becomes a model for all who aspire to make a lasting contribution to the naval profession and to the security of one's country.

Perhaps Admiral Gorshkov's major military contribution was making the Soviet navy the most powerful navy in Russian history. For example, prior to his leadership the Soviet navy basically had as its major responsibility coastaldefense matters, but Admiral Gorshkov changed that by building the service's capabilities and expanding its role to worldwide responsibility and activity. By modernizing the navy and adopting new technological devices, he substantially increased its power, enabling it to take a first-class position in the world. He constantly tested new naval capabilities and adjusted to make improvements, recognizing that there were good reasons to do so; after all, other nations were making important and substantial changes to their navies. Gorshkov's skills helped the Soviet Union achieve remarkable influence in the world; his bureaucratic skills also helped him gain respect and cooperation when he was involved with military representatives of other countries. The importance of this characteristic is becoming quite evident in today's American military.

Admiral Gorshkov was also a patient politician regarding his role as a naval leader. "When cuts had to be made, he made them. When there were opportunities for growth, he took them" (p. 5). In addition, he had the ability—even when the Soviet navy appeard to be

discredited, as in the case of the Cuban missile crisis—to adjust to new highranking political leaders who were in a position to replace him if they thought it necessary to do so. His ability to make known in speeches and writings the important role that a navy can play in expanding the power and influence of a country, as well as defending it against potential enemies, was also an asset to him. Yet the admiral also knew that war was not the only context in which a navy could be useful. Even in peacetime it was important to have a strong navy, because possession of such could give a country important advantages, such as prestige and potential. Interestingly, "Gorshkov's genius was not simply to grow his Navy, it was to justify its existence as an arm of the state in peacetime and in operations that fell short of all-out war" (p. 10). He was truly an effective advocate for his chosen profession.

Realistically, this book will be a guide to nations whose intentions include expanding their influence on a global scale via the use of a navy. Although there may be a number of countries in this category, China and India are current examples. Yet perhaps a major benefit of the book is that it provides a learning experience for future naval officers who aspire to a high military position in which they will encounter many challenges similar to those Admiral Gorshkov faced, despite the changing complexities of naval military activity. We always can learn from the past. Hence, a new generation of officers may be helped in the future by becoming aware of the challenges Admiral Gorshkov faced and how he overcame them to make the Russian navy one of the strongest in the world today.

WILLIAM E. KELLY

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John J. Salesses teaches an elective on leadership and the literature of war at the College. He is vice president emeritus for academic affairs at Rhode Island College and also served as chair of the Salve Regina University English Department. He served more than thirty-five years in a variety of active-duty and reserve assignments, including as commanding general of the 4th Marine Division and deputy chief of staff for reserve affairs.

# REFLECTIONS ON READING

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

hief of Naval Operations Admiral John Richardson's reading list is on line, and it offers an opportunity to dive deep into a sea of history, heritage, strategic thinking, and practical advice for sailors and civilians interested in sea power and national defense. Released in March 2017 and maintained by the Naval War College, the list includes about 150 titles for the vibrant Navy Professional Reading Program. It includes a core "canon" of books that provides thought-provoking insights for leaders and communicators. Titles in the canon include Handel's *Masters of War*, Liddell Hart's *Strategy*, Madison's *Constitution*, Jefferson's *Declaration of Independence*, Sun Tzu's *Art of War*, and Richardson's *Navy Leader Development Framework*. *Framework* includes a great quote from President John F. Kennedy: "Learning and leadership are indispensable to each other."

## Admiral Richardson has said the following:

Reading can teach us the fundamentals of our business. Thucydides, Clausewitz, Mahan, Corbett . . . these masters wrote works of the highest quality that have stood the test of time. As the challenges the naval service faces have multiplied, knowledge required to meet those challenges has also grown. This means that I cannot possibly dictate a comprehensive list of "the" books to read. Still, I will soon share with you what I consider to be a canon of classic works. I am also thinking of ways I can highlight other books that I have found interesting because they helped me to think through a problem or see things differently. I will make it easy to obtain these books through an e-book program that can be easily accessed through your personal electronic devices. Finally, I will open up a way for all of us to talk about what we are reading.

### He went on to say:

I want to revitalize the intellectual debate in our Navy. We all—officers, enlisted, and civilians—need to develop sound and long-term habits for reading and writing

during the entire course of our careers. We must challenge our own assumptions, be informed by the facts, and be aware of the current context. We must commit to selfimprovement, through formal schools and courses, and especially through selfeducation. I strongly encourage you to read, think, and write about our naval profession. Our Navy benefits from a vigorous intellectual debate.

The 150 titles in the CNO's Professional Reading Program are categorized into the "Canon," "Core Attributes," "Naval Power," "Fast Learning," "Navy Team," and "Partnerships." They include works by authors such as Kaplan, Stavridis, Winchester, Toll, Daughan, Hornfischer, Morison, Carlson, Singer, Levitt, and Gladwell.

The commitment to provide e-book availability is noteworthy. And for the first time we see movies, series, and documentaries recommended, including Saving Private Ryan, Band of Brothers, Zulu, Black Hawk Down, John Adams, Lawrence of Arabia, and Eye in the Sky. The last named stars Helen Mirren. "Colonel Katherine Powell, a military officer in command of an operation to capture terrorists in Kenya, sees her mission escalate when a girl enters the kill zone, triggering an international dispute over the implications of modern warfare." Beyond the entertainment factor, films are a valuable resource for communicating complex scenarios and emerging topics about war, peace, diplomacy, and ethics. Many movies based on books take some artistic license and provide an opportunity to compare film and literature; ideas conveyed visually in a ninety-minute film may provoke a more robust discussion of the titles in the Navy Reading Program.

CNO Richardson values reading professional journals as well as books. And he encourages online discourse. "[M]ore recently, online blogs have hosted professional conversations. Thoughtful, well-researched articles can offer useful insights and, when needed, can help us change our minds," he writes—as he encourages his sailors to write.

As reading leads to broader thinking, writing leads to clearer thinking. If you have not written much, I urge you to get started. A sharp pen reflects a sharp mind. But writing is not for the weak. The writer must form and then expose his or her ideas to public scrutiny. That takes confidence. But an argument properly conceived and defended can be of great value to our profession. . . . It is not my purpose to offer writing lessons, but in my experience, simple is better. Avoid acronyms or code. Be clear and concise. Keep in mind Mark Twain's warning, "The more you explain it, the more I don't understand it."

Reading is important for personal edification and education; however, we must recognize that the innate value of reading lies not in the words themselves, but what we do with those words. We digest and internalize the ideas and concepts written in these books so that we can apply them to our profession, but the reflexive personal benefit comes in challenging our own imaginations. To paraphrase famous author Gustave Flaubert, we read not as children do for amusement or as the ambitious do solely to climb the corporate ladder; instead we read to live well. In the confines of a submarine, inside the skin of a ship, or in a dusty tent somewhere in the desert, reading is truly fundamental to who we are as men and women and who we are as sailors.

So, dive deep into reading and writing. In our humble opinion, books offer the deepest dives into insight and wisdom. Do you have the time? I am reminded of the statement attributed to Confucius: "No matter how busy you may think you are, you must find time for reading, or surrender yourself to self-chosen ignorance."

#### JOHN E. JACKSON

(With appreciation to the Navy Reads blog. This article republishes significant portions of Bill Doughty's April 15, 2017, Navy Reads blog post. The blog can be found at navyreads.blogspot.com.)