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The Hattendorf Prize Lectures, Volume 1: 2011–2019

Edited by Evan Wilson

The Hattendorf Prize for Distinguished Original Research in Maritime History

The Hattendorf Prize Lectures,
Volume 1

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FOREWORD

As N. A. M. Rodger says in his prize lecture in this volume, "Recent or distant, history is all we have to go on, and we cannot escape it." Here at the Naval War College, we know better than to try to escape history; instead, we embrace it. The study of history broadens our horizons. It exposes us to people, places, and experiences that are otherwise inaccessible, and in doing so it builds our strategic and cultural perspective. I use that last phrase deliberately, because it forms the heart of the mission statement of the Naval War College. The College educates and develops future leaders through the process of broadening their perspectives. It fosters a commitment to lifelong learning and prepares them to lead in the Cognitive Age. Thus, history forms an integral part of the College's purpose. We promote its study, engage with its lessons, and expose our students to the benefits of its unique perspectives.

The publication of the first four Hattendorf Prize lectures demonstrates the essential value of historical scholarship to the College's mission. The Hattendorf Prize is the most prestigious award that any scholar can receive in the fields of maritime or naval history, and it serves as a beacon to encourage new scholarship in these important fields. An indication of the importance of the award is that it has been awarded once by the Secretary of the Navy at graduation and twice by the Chief of Naval Operations in person at the College's flagship international event, the biennial International Seapower Symposium (ISS). The world's leading naval gathering, ISS brings together chiefs of navies and coast guards from around the globe to discuss common challenges and identify opportunities for cooperation. The prize recipients are leading members of the international academic community, and their presence at ISS has reinforced the College's commitment to international cooperation, as well as the College's mission of educating naval leaders about history and strategy.

The award's namesake, Professor Emeritus John B. Hattendorf, embodies its values. During his many years of service as the College's Ernest J. King Professor of Maritime History, John conducted the kind of archival research that shapes our current understanding of the purpose and mission of the College. His career has served as a model for the prize criteria: to serve the Navy by improving the quality and range of scholarship in maritime history; to engage globally, with an appreciation for scholarship in different languages and from different national, cultural, and regional perspectives; and to see maritime history as a broad field in global history, one that builds on insights that cut across traditional academic and national boundaries.

John is the lead author of the wonderfully readable centennial history of the College, *Sailors and Scholars*. In reading it before my arrival in Newport this summer, I was struck by his description of the College's earliest days. At the College's formal opening ceremony on September 4, 1885, Rear Adm. Stephen B. Luce, the founder and first President, told his audience that the College had no money for books, furniture, heat, or light. It was housed in the former Newport poorhouse, which offered little more than shelter from the winds off Narragansett Bay. Yet Luce was confident that his project was worthwhile and that support for it would follow.

Well over a century later, we can only marvel at how far the College has come. Where Luce once worried about the very survival of the institution, we now play host to the world's leading scholars, alongside chiefs of navies. We also recently hosted the Navy's new Chief Learning Officer, highlighting the importance of the College for the future of naval education. The Department of the Navy's recent Education for Seapower (E4S) report argues that the education of our force is vital for national security. Reflecting this renewed emphasis on education, the College is investing in its own future by renovating Sims Hall and making other capital improvements.

The Hattendorf Prize demonstrates the viability of Luce's vision and exemplifies the role that scholarship can play in supporting the mission of the U.S. Navy and its partners. For Luce, the College was to be "a place of original research on all questions relating to war and to statesmanship connected with war, or the prevention of war." We begin every academic year at the College with these words, they feature prominently on the College's website, and we frequently refer to them in College publications. But as with any motto, the more the words are repeated, the easier it is to forget their meaning. The publication of these prize lectures should cause us to consider these words anew. The distinguished scholars honored here embody Luce's call. They have conducted original research of the highest quality in naval history and its role in contemporary debates, and by bringing them to the College the Hattendorf Prize has fortified the College's purpose as the U.S. Navy's essential connection between the sea services and academics. These stimulating

lectures remind us of the educational mission of the College and exemplify the value of connecting scholars and practitioners. It is my great personal pleasure to commend these lectures to you.

Shoshana S. Chatfield
Rear Admiral, U.S. Navy
President, U.S. Naval War College

The Hattendorf Prize Lectures,
Volume 1

INTRODUCTION

The publication of the first four John B. Hattendorf Prize Lectures presents an opportunity to revisit the original criteria for the award. Developed with the support of Rear Admiral Roger Nolan and the Naval War College Foundation in 2011, the prize is accompanied by ten thousand dollars and a medal cast in bronze. It is awarded for distinguished academic achievement that contributes to a deeper understanding of the uses of sea services in history. From the outset, it was intended to be international, so as to encourage a global perspective on maritime affairs. It can be given either for a single work or for a sustained body of scholarly achievement over many years.

It is noteworthy how the selection committees have interpreted these last two criteria. Not only are the four scholars honored so far not American citizens, but they also write about topics other than the history of the U.S. Navy. All four earned the prize on the basis of many decades of scholarship rather than a single work. In both respects, these honorees reflect the scholarship and values of the award's namesake, John B. Hattendorf, Ernest J. King Professor Emeritus at the Naval War College. As John's students and colleagues know, he constantly seeks an international perspective by engaging with scholars around the world and working in many languages. He has written and edited dozens of books and many more articles and chapters on a range of subjects—all of which make him worthy of his own lifetime achievement award.

All four of the honorees whose lectures are included in this collection are from the same generation as the prize's namesake: all were born in the decade beginning in 1939 (Werner Rahn in 1939, John Hattendorf 1941, Geoffrey Till and Paul Kennedy 1945, N. A. M. Rodger 1949) and came of scholarly age in the 1970s. This collection presents an opportunity to reflect on the influences and achievements of that generation.

Paul Kennedy's lecture, in particular, marks a return to his roots. By ranging widely over three great world wars and emphasizing the structural factors that

shaped naval affairs, especially geography and economics, his lecture recalls the publication in 1976 of the work that first made his name, *The Rise and Fall of British Naval Mastery.* It is difficult to overstate the influence of this book on the field of naval history. Nicholas A. M. Rodger, in an otherwise acerbic annotated bibliography, called it a "classic history."[1] Indeed, *British Naval Mastery* was in many ways responsible for reestablishing the field of naval history within academia. In the decades before its publication, the titans of the first half of the twentieth century—Alfred Thayer Mahan, Sir Julian Corbett, and others—had been succeeded by a generation of historians shaped by the Second World War: Robert G. Albion, Samuel Eliot Morison, Stephen Roskill, Arthur Marder, and others. After 1945, those in the latter group published extensively on the conduct of the war at sea, authoring the official histories, engaging in fierce debates, and shaping public perception of the war. Yet by the early 1970s, naval history had come to be seen as a backwater of purely operational histories, chronicling one battle after another. Although this perception was slightly unfair, Kennedy's *British Naval Mastery* demonstrated that naval history could be much more.

In his prize lecture, Kennedy's characteristic approach comes through in the opening paragraphs. Despite being the recipient of an award in maritime history, he explicitly seeks to explain the limitations of sea power. He spends most of his energy on the periods between the three great wars of 1793–1815, 1914–18, and 1939–45, and suggests that the subtitle of his piece should be *Sea Power in an Age of Change.* What motivates his analysis is not the tactics used at Trafalgar or Jutland but the Industrial Revolution that occurred in between. How, he asks, did sea power play a pivotal role in the first and third wars, but not (he suggests) in the second? His answer weaves together multiple strands: technological changes that influenced operational capabilities, the geopolitics of the coalitions in each war, and the acceleration of relative economic changes in wartime. Naval history therefore is only partially about ships at sea, and has at least as much to do with finance as with gunnery tactics.

Werner Rahn also looks beyond the traditional topics of naval history in examining the ebbs and flows of German naval affairs over a century and a half. In building a great battle fleet on the eve of the First World War, German planners ignored the geographical constraints of Germany's location in the North Sea. When war came and the High Seas Fleet was contained, the only apparent alternative was submarine warfare; but this raised more questions than it answered. Chancellor Bethmann-Hollweg worried that a reliance on U-boats "would claim as a stake our existence as a great power and the future of our nation in its entirety." This is not the language of the navalists. Rahn highlights the limitations of sea power much as Kennedy does. By risking American entry into the war—both times—German naval strategists played directly into the underlying relative economic strengths of

their enemies. In both Rahn's and Kennedy's lectures, we can hear the echoes of Kennedy's best seller, *The Rise and Fall of the Great Powers* (1987), and we can see its origins in naval history. To reiterate: sea power depends on economic power.

Both Kennedy and Rahn demonstrate how historians can speak to navies. Kennedy does so by encouraging naval officers to think beyond the narrow confines of their professional lives and understand how sea power should be integrated into larger national strategies. Before launching into his survey, Rahn emphasizes that the public and naval personnel are interested in the past, and it is essential that historians inform them about it without sacrificing complexity.

If Rahn and Kennedy show historians how to speak to navies and show navies the value of history, Nicholas Rodger and Geoffrey Till are much more blunt: they *tell*. Their essays bookend the volume, but they work best as a pair. Rather than examining particular historical phenomena, they take a more philosophical approach.

"[H]istory is all we have to go on," argues Rodger, and therefore it must play a central role in shaping naval policy. At the same time, navies need to beware the pitfalls of historical myths. Memories are what make us human, and history is our collective memory; but, much like our memories, history is fallible, and much of what we think we know is wrong. The role of the historian is to correct the record. When given opportunities to speak to those whose primary concern is what will happen in the future, historians should proceed cautiously. History never repeats itself exactly, and "lessons" from history are, at best, general warnings. Historians are no better than naval officers at predicting the future, but they can encourage naval officers to think more carefully about the past so as to have a better foundation for thinking about the future. Rodger and Rahn both make the point that historians cannot neglect the complexity of their subject, as the fastest way to create a dangerous myth is to oversimplify the past.

Till echoes two of Rodger's points. First, navies need to know their histories: "a navy that does not know its history has no soul." Like Rodger and Rahn, Till worries that history too often is used as a means of socializing new entrants, telling myths that shape organizational identities but that are in fact oversimplifications or simply wrong. He also agrees with Rodger that history rhymes. Navies should study their history not because past events will recur exactly, but rather because practitioners need to be able to draw on a wide pool of "comparable but not identical situations." Till also extends Rodger's arguments in two ways. History is not simply the gathering of comparable situations; it is an intellectual process. Professional military education should force students to think from the cabinet meeting to the battlefield and back again, and from military hardware back to the factory and raw materials. Historians seek to explain past phenomena, and they necessarily must think flexibly and creatively about causal chains. Training leaders to think like historians makes it more likely that the right questions will be asked. The burden,

according to Till, should not fall entirely on practitioners, and his lecture ends with a call to standards for naval historians.

Recently the Naval War College established the John B. Hattendorf Center for Maritime Historical Research to address precisely these issues. It advocates for the teaching of history in professional military education, and it serves as a central resource for scholars of U.S. naval history and maritime history more broadly. Its faculty contribute to the curriculum and publish original documentary research. In the spirit of the Hattendorf Prize, the center seeks a global perspective on maritime affairs, and it connects navies and naval historians.

These four lectures represent the best work of a generation of naval historians, and they illustrate the ways in which that generation crafted its work. Every discipline has its own founders, and those founders serve as reference points; they rarely require introductions or explanations (Clausewitz, Marx, Weber, Keynes, etc.). They become integrated into the language of the discipline, serving as shorthand for complex ideas and extensive bodies of scholarship. The language of naval history, as exemplified in this volume, uses the scholars of the turn of the twentieth century, especially Mahan and Corbett, to sketch the outlines of arguments and highlight areas of disagreement. For Kennedy, the First World War was a "Mackinder-ite land struggle, with surface navies operating at the margins." Victory for the Allies was, to a small degree, a product of keeping open the sea lines of communication (Corbett) and, to a much larger degree, a product of winning on land (Mackinder) and introducing American industrial might (Kennedy). Rahn disagrees, arguing that Germany's large battle-fleet-in-being helped pin down British resources and partly justified the arch-Mahanian approach of Tirpitz. (Rahn concedes that the fleet cost too much to be worth the trouble.) Britain's distant economic blockade and Corbettian control of the sea lines of communication was not marginal but central to Germany's defeat.

So long as historians do not allow shorthand versions of Mahan and Corbett to confuse their readers or oversimplify their arguments, we should embrace them as reference points. The debates these theorists sparked are timeless, and they are helpful in integrating contemporary scholarship into an existing framework. Yet Rodger and Till both warn of the limitations of Mahan and Corbett. For Till, the problem is the fundamental flexibility of sea power. As navies are asked to do ever more, especially low-intensity enforcement of international law, Mahan and Corbett do not seem to be able to offer much guidance. They should be read for perspectives on war fighting and deterrent war prevention at sea, but not as substitutes for a meaningful discussion of the wide range of obligations navies now must meet. Rodger calls attention to Mahan's assumption that the world will continue as it has before. Like Thomas Malthus a century earlier, Mahan had the misfortune to publish on the cusp of epochal changes in his subject area. While this in no way

invalidates his work, it serves as a cautionary tale to historians eager to extract lessons from their research.

What Rodger and Till suggest, then, is that we need a more complex understanding of Mahan and Corbett. This is not a new idea. As John Hattendorf himself argued, "We need to return once again to these writers, considering their thought carefully in the light of continuing historical research and understanding." He went on to praise the Naval Institute's Classics of Sea Power series for providing modern commentary and annotations on the great works, and to encourage both practitioners and historians to consider their relevance.[2] That was 1993; today, the Naval Institute is publishing its 21st Century Foundations series with similar goals.[3] We must continue in this vein, but we also should understand the difference between a foundational reference point and scripture. Mahan, Corbett, and their peers are useful only insofar as we ask the right questions of them. In some cases, they may not be fit for the purpose, even if they seem destined to remain the stars by which naval history navigates.

Let this volume serve three purposes. First, it is an example of naval history done well. All the essays were written by distinguished scholars, and they demonstrate the best of the field. They look beyond operations, integrating sea power into larger frameworks; they revel in complexity, rejecting simple explanations; and most of all, they ask the right questions. The lectures also demonstrate the enduring relevance of sea power theory. Mahan is not enough, but—thanks in part to the prize laureates—no one is suggesting that he is. Understanding the parameters of the historical debates, as well as their limitations, is essential for all those interested in naval history.

Finally, the lectures connect naval historians to navies. It is remarkable how easy it is for the two groups to ignore each other. Navies are comfortable with their myths, and generally do not like to be told that most of what they think they know is wrong. Then, too, historians generally are uncomfortable when asked to apply their work. Better, some say, to keep the sacred flame of pure scholarly inquiry safe from the grubby hands of practitioners. Yet, as the prize lectures remind us, naval historians need to spend time with naval personnel so as to understand their culture and worldview. As the Hattendorf Prize and the Hattendorf Center at the Naval War College look toward the next decade of operations, these are valuable lessons to keep in mind.

Evan Wilson
Assistant Professor, John B. Hattendorf Center for Maritime Historical Research
Naval War College, Newport, Rhode Island

NOTES 1 Rodger did not spare his own work, calling his earliest book "sketchy and unreliable." N. A. M. Rodger, *The Command of the Ocean: A Naval History of Britain, 1649–1815* (London: Penguin, 2004), pp. 821, 845.

2 John B. Hattendorf, "Mahan Is Not Enough: Conference Themes and Issues," in *Mahan Is Not Enough: The Proceedings of a Conference on the Works of Sir Julian Corbett and Admiral Sir Herbert Richmond*, ed. James Goldrick and John B. Hattendorf, Historical Monograph 10 (Newport, RI: Naval War College Press, 1993), p. 9.

3 While new books on more-obscure thinkers are being added regularly, it is unsurprising to note that *21st Century Mahan* and *21st Century Corbett* were among the first to be published.

The President, U.S. Naval War College, takes great pleasure in awarding

The Hattendorf Prize for Distinguished Original Research in Maritime History

to N. A. M. Rodger, M.A., D.Phil., F.B.A., F.R.Hist.S., F.S.A., Research Fellow of All Souls College, Oxford.

The Naval War College is pleased to recognize you as the first Hattendorf Prize Laureate. This award is predicated on your distinguished achievements as an assiduous historical researcher as well as the author of beautifully written and intellectually impressive studies of Britain's naval history. Your scope, embracing more than a thousand years of naval history, is informed and given depth by an equally broad understanding of your subject. Your impressive command of sources, ranging from medieval documents in Latin to modern archives and scholarly works in a broad range of European languages, has established a new and more comprehensive approach to writing a national naval history. You have written that "the naval historian has to be aware of what other historians are writing to do justice to his own subject, and explain its importance to others. To do so he has to integrate a wide range of knowledge. It goes without saying that this demands a great deal of reading and not inconsiderable literary skills, so it is not surprising that successful naval histories which take this approach are rare." Your works exemplify that description and have themselves become prizes for us to read. This award honors you and your work, expressing appreciation for your distinguished academic research, insight, and writing that contribute to a deeper historical understanding of the broad context and interrelationships involved in the roles, achievements, and uses of navies within the contexts of both maritime and general history.

Presented this 20th day of October 2011 at the U.S. Naval War College, Newport, Rhode Island.

John N. Christenson
Rear Admiral, United States Navy
President, Naval War College

I

The Perils of History

N. A. M. RODGER

According to Hegel, we learn from history that we do not learn from history.[1] We also learn that historians are deeply unreliable, and never more so than when they are foolish enough to predict the future. Historians, in fact, would certainly be the worst possible guides to the policy maker, were it not for the alternative. But the alternative is not other people with better information but other people with no information, for it is the past that makes the present and the future. All of us, as individuals, as organizations, and as societies, have personalities that are made up of our experiences. It is memory that makes us what we are, and to lose memory is to lose personality. In this age of dementia, many of us are painfully familiar with what happens when people lose their memories, but though individuals can lose their minds, societies and organizations (like navies) never escape their past. All we know comes from our experience, and all our experience is of the past. The future, which it would be very convenient to know, is regrettably inaccessible; the present constantly slips between our fingers. Only the past makes us who we are, and it shapes our understanding of the world. The question is not whether we should or whether we can learn from the past; we have no choice, if we are to learn at all. Recent or distant, history is all we have to go on, and we cannot escape it.

To read the writings or listen to the speeches of public figures is to encounter a dense tissue of historical references and allusions. Sometimes they are conscious references to historical events that form, or are believed to form, part of the common stock of social memory. Occasionally they are the fruit of serious knowledge of the past, but more often they refer to some of the common myths that bind nations and societies together. Usually these myths have historical roots, but in the process of shaping national identity they tend to lose any close relation with the truth of what really happened. Where do they come from, these urban myths and long-exploded fallacies that form so much of the discourse of public life? Half-remembered primary-school lessons, anecdotes overheard in the pub, newspapers read over someone's shoulder seem to have more power to form opinion than any scholar could dream of. "Practical men, who believe themselves to be quite exempt

from any intellectual influence," wrote J. M. Keynes, "are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back."[2] Our problem is not that we know too little history to understand the present but that we know too much, and most of it is wrong.

Even when it is right, moreover, the history that is put to use is often the wrong history. In September 2011 a short article appeared in the *Economist* that reviewed the situation of the euro, quoting an unnamed ambassador:[3] "I feel like a filing clerk in Berlin in 1945. The work of government goes on, even as the war approaches." Inspired by this remark, the anonymous author indulged in an extended range of military metaphors and allusions to events of the Second World War. Clearly he wanted to show off his knowledge of that war, but it was not obvious that it told the reader anything at all about the financial crisis. There is of course a very relevant history that could and should have been deployed—the history of currency unions. The history of the Zollverein (which led to the unified currency of the 1871 German *Reich*); of the Latin, Scandinavian, and East African currency unions (which all failed); of the West African franc and the Belgium-Luxembourg currency link (still flourishing)—all offer relevant lessons. The eighteenth-century New England monetary union shows that common currencies can circulate without political union, while the history of the United States over its first century shows that a political union does not require a common currency (at least initially). All these would have been highly instructive historical excursions; the Second World War was mere self-indulgence, and even if the journalist had been a real expert in it, it would still have been irrelevant.

What is more, real expertise is no guarantee that history will guide us in the right direction. There could be no better nor more apposite example of the expert historian than Capt. Alfred T. Mahan, and yet in reading his great works we can easily see that he was wrong to assume that certain features of the world he had grown up with would last forever. For him the sea was always commanded by a single, dominant European naval power, and Britain was the only plausible candidate. He looked forward to the day when the U.S. Navy would be capable of joining an alliance with Britain, but he clearly did not expect that there would ever be more than a handful of serious naval powers. Though he lived in the first great age of free trade and liberal economics, he did not foresee that the result would be the creation of many advanced economies and modern navies all over the world. Nor did he realize that the growth of the U.S. Navy, to which he dedicated his career, would inevitably make it impossible for Britain or any other European power to dominate the seas of the world single-handed. Consequently he has relatively little to say to our age of naval coalitions.

Most common and most destructive of all, however, are not appeals to the lessons of real history, nor even conscious references to shared myth, but unconscious assumptions that reveal themselves in turns of phrase and habits of thought. This is history at the deepest and most universal level, the history that lies below the foundations of every intellectual construction and undermines so many of them. This is the history that everybody shares and nobody needs to think about; these are the assumptions that are never challenged. This history is everywhere, but much of it is bad history, and the longer it goes unchallenged, the more dangerous it becomes. This history provides people with ready-made solutions to new problems, and it "proves" that they are the right solutions.

> Whatever the locus of action, from national government down to precinct, whether in an executive body or a legislative committee, some participants are almost sure to start with favorite, long-developed schemes. Their inclination will be to ignore whatever seems not to fit and to define the problem as one calling for solutions they have handy. Their arguments will be supported, more than likely, by analogies.[4]

The analogies will be drawn from experience, that is, from history, and most likely from the history that has the most emotional power.

Traumatic events dig deep foundations in the national psyche. In Britain the appeasement of Hitler has long been such an event. Sir Anthony Eden's response to the Egyptian nationalization of the Suez Canal in 1956 was clearly shaped by his determination never again to appease a dictator. But events suggest that the precedent of Hitler was not very helpful in dealing with Colonel Nasser, and one cannot help thinking that if Eden had confronted and analyzed it he would have realized as much. In other crises since, the reflex never to appease a dictator has evidently served British governments rather better. For the United States the equivalent trauma is Pearl Harbor. It was the image that leaped to many minds on that "day of infamy," September 11, 2001, when the terrorists attacked the Twin Towers, and it evidently shaped President Bush's response, which was to declare war on somebody at once and invade somewhere as quickly as possible. Even at the time, many observers doubted if it was wise to raise a criminal gang to the status of a sovereign state or whether invasion of one or two countries, however unpleasant they were, was really the best response to an international terrorist movement.[5]

Today, Pearl Harbor visibly lurks just below the surface of much discussion of U.S. relations with China. Clearly there are excellent reasons for the United States (and the world) to pay close attention to China, but to me it seems that the case differs in most respects from that of Japan in the 1930s and that the mere fact that China constitutes a potential threat to U.S. interests from approximately the same part of the world is a bad reason for drawing conscious—or, more dangerously, unconscious—parallels with 1941. It is especially dangerous because of one notable difference: in 1941 the Pacific naval powers were (as a consequence of the Washington naval treaties) so far apart that they were largely out of each other's range, but

today the United States and China have many opportunities to clash in and around the China seas. A sudden emergency generated by some unexpected incident is the worst possible moment to be guided by unconscious historical parallels. Moreover, the Chinese too have their traumatic moments in history that are likely to shape their responses in any confrontation with an external power. In their case, it is the myth-history of the Opium War that is endlessly invoked to explain how to resist foreign aggression.[6] This history would be well worth study by American policy makers.

Since history is impossible to escape and bad history is difficult to avoid, the historian has at least the essential function of distinguishing the two, of warning against bad history and false analogy. Historians may have no special qualifications to predict the future, but at least they can check the misuse of the past. For strategists and policy makers, however, this may not be enough. I know from experience that people can be very annoyed with historians who insist how much better qualified they are than anyone else to avoid the dangers of predicting the future by false analogy with the past but then refuse to risk their reputations by making any predictions at all. The historian must always be intensely conscious that history never repeats itself exactly; historical parallels are never really parallel, and the "lessons of history" are at best general warnings, not specific instructions. It has been well said that "history never repeats itself, but sometimes it rhymes."[7] Historians cannot help noticing resemblances between the present day and the periods they study, and these may at least suggest pitfalls to avoid and possibilities to exploit.

I myself have recently been studying the nineteenth century, and I believe there are suggestive similarities between that era and our own in two dimensions: diplomacy and strategy, and economics and trade. In diplomacy and strategy we may concentrate on the leading European nations, for in the nineteenth century the great powers were still essentially European. The United States, as the century wore on, increasingly acquired the economic potential to act as a great power, but in practice it remained largely absorbed in its own internal development; it did not choose to involve itself deeply in world affairs, and (except during the Civil War) its armed forces were negligible. For almost forty years after the Congress of Vienna ended the Napoleonic War, the peace of Europe was largely assured by the "Concert of Europe"—meaning the loose, informal grouping of the victors in that war—to preserve stability and restrain French expansionism. This was then disrupted by the Russian war of 1852–55 (rather misleadingly called the Crimean War, since its origins lay in the Levant and its most decisive campaign was fought in the Baltic), followed by the German and Italian wars of unification.

In 1871 the creation of the German Second Reich marked the emergence of a new, powerful, and expansionist military power in Central Europe. For the last thirty years of the century and the early years of the next, Europe (and by extension

the world as well) was increasingly destabilized by the rise of two hungry and ambitious powers, Germany and Russia, and by the decline and vulnerability of two extensive empires, Austria-Hungary and the Ottoman Empire. Comfortable, possessor powers like Britain and France had imperial ambitions and rivalries across the world but hoped to keep the peace within Europe by restraining aggressors and supporting existing frontiers. The British in particular feared that a collapse of the Ottoman Empire would allow Russia to expand to the Mediterranean and threaten the vital imperial sea route to India. Toward the end of the century the British became increasingly worried that Russian expansion in Central Asia would place the Russian army within direct striking distance of India—though the modern eye and modern maps suggest that the very long distances and very high mountains that separated them would have put an invasion far out of practical reach.

Retrospect suggests that Britain's preeminence was under growing threat from the 1870s at latest. British statesmen, however, like the vast majority of world leaders in every age, had learned their view of the world as young men and did not substantially change it as they grew older. The leaders of that generation had formed their outlook in the 1830s, 1840s, and 1850s, when it seemed that Britain had nothing to fear from Continental rivals and nothing to lose from what Lord Palmerston (twice prime minister) called "splendid isolation." For them British preeminence was a given, a product of history and economic dominance that no one could doubt or challenge. There was no need to spend much money on the navy, still less the army, because only savages would be ignorant and foolish enough to challenge them. The only superpower dominated the world by political and economic rather than military strength. It has been well said that "superpowers in any age function much on strategic credit. Their writ, that is, runs much more on the basis of their reputation for effective coercion than on the actual exercise of power."[8] Reputation was cheap and effective, there had been no credible military threat to Britain for half a century, and British political leaders of the generation of Disraeli and Gladstone found it difficult to take seriously the idea that there might be another in the foreseeable future.

This confidence rested on Britain's economic superiority. By 1815 Britain was the world's leading trading nation, with an unsurpassed financial strength that had allowed it to finance the entire allied war effort in the closing stages of the Napoleonic War. In the succeeding years of peace the Industrial Revolution gathered pace, and in the 1840s the repeal of the Corn Laws and the Navigation Acts threw open British shipping and overseas trade to international competition and ushered in the era of free trade. This was the first age of globalization, when the free movement of capital and technology and the progressive removal of barriers to trade led to a very rapid increase in international prosperity. It also led to the rise of new industrial powers abroad. From being in the 1840s the only advanced industrial economy in

the world, Britain was by the end of the century only one of several, some of them having much greater populations, land areas, and stores of natural resources than its own.

It was obvious to contemporaries that British economic preeminence was under threat, and it seemed to many that ambitious rivals might easily translate that threat into military terms—or rather, naval terms, for all credible strategic threats to Britain were necessarily naval ones. By the 1880s the old-fashioned and quite unrealistic fears of an unexpected surprise attack across the Channel had been largely abandoned. In their place came a newer and more credible threat to Britain's worldwide trade, to an economy now heavily dependent on imported food and raw materials and exported manufactures. Moreover, this threat no longer came entirely from rival European powers. Advanced economies were rising in other parts of the world, some of them showing signs of spending their wealth and industrial capacity on modern navies. For two centuries the British had been able to dominate the seas of the world indirectly by keeping their main fleet at home, for defense against their neighbors, who were their only serious enemies. By the late 1890s two small but modern navies, those of the United States and Japan, were rising in distant seas that could not be dominated from Europe.

British strategists recognized their country's radical and unique dependence on seaborne trade but were divided in their response. Some feared attack and planned various strategies of defense. Others placed more or most of their trust in the development of international law. The rise of the global economy was paralleled in the second half of the nineteenth century by the rise of a new kind of international law, founded on international treaties signed by most, if not all, of the leading powers. The first of these was the Declaration of Paris of 1857, which professed to outlaw privateering (though the United States refused to sign and still claims the right to issue letters of marque). More important were the Hague and London Conferences of 1908–1909, which set out to write international rules to protect wartime trade, define contraband, and forbid blockade. The Declaration of London proposed to establish an International Prize Court that would have been the first international court with jurisdiction over sovereign states (though only if both parties chose to appeal to it).

The proposed Prize Court never came to fruition, and the force of these international agreements, like all their predecessors, rested on "customary international law," which essentially meant the capacity of neutrals to restrain belligerent navies. Behind this expectation that neutral powers would have real influence over belligerents lay a clear understanding of the complexity and vulnerability of the web of international trade, on which all advanced economies were heavily, and mutually, dependent. Any form of economic warfare at sea, it was presumed, would ruin all

the participants and render war impossible to sustain. In the era of globalization, therefore, modern war would have to be short if it were to be possible at all, and the capacity to keep it going would depend largely or entirely on neutrals' freedom to trade. The First World War was to falsify almost all of these expectations, in the process ruining the leading belligerents and wrecking the world trading system. In place of free trade it brought an age of protectionism, financial crisis, economic collapse, and another world war.

What, if any, resemblances may we find between this world and our own? First, we must obviously increase the scale from Europe to the whole world. That done, we may see some suggestive parallels between the postwar settlements of 1815 and of 1945. The Cold War was scarcely a "Concert of Europe," but in both cases the wartime allies continued to dominate the postwar world and prevent their rivalries from leading to war, except among client states on the strategic periphery. Once again a new age of free trade and surging economic growth lifted nations in some parts of the world from poverty into the status of advanced economies in two generations. Once again this huge advance in world prosperity depended entirely on ships trading across free and open seas. Once again it is very widely assumed that the complexity and interdependence of the modern world trading system makes it unthinkable that any advanced state would contemplate disrupting it by war. Today, however, the new age of free trade seems to be threatened by financial collapse and political instability in ways reminiscent of the 1890s. Ambitious rising powers once more press against the weaknesses of existing empires.

A comparison of Japan then and China now suggests itself—but I have already suggested that I think this is simplistic and dangerous. I think there may be more to be learned by comparing modern China[9] with Bismarckian Germany. Both are populous states in central positions with historic pretensions to imperial status, and with rapidly growing economic and military strength to back them. In both cases dazzling economic growth tends to conceal the extent to which the economies remain backward and dependent on foreign technology and finance. In both cases political unity and constitutional structures remain fragile, and foreign policy is marked by aggressive insecurity. Growing prosperity and power will no doubt continue to reconcile many tensions, but the Chinese regime would be vulnerable to any serious economic or political check. This is an uncomfortable reflection, for this is the classic situation in which unstable dictatorships attempt to rebuild crumbling support at home by reckless adventures abroad. The world has a heavy investment in China's economic growth and political unity. A China growing smoothly to become a prosperous and advanced economy with a large stake in world security and peace and a huge market open to trade would be very much in the interest of all. A nuclear-armed China sliding backward into poverty and instability presents

incalculable risks. A large sector of public opinion in the United States regards China's strength as a threat, but it is China's weakness that ought to worry us.

So ought the fragility of the world economic system. Piracy and protectionism, to name only the two most obvious dangers, are capable of inflicting grave damage on world prosperity. The Somalis have shown how easy and profitable is piracy for ransom, in the tradition of the North African regencies, and there is plenty of scope for others to imitate them. Protectionism in the wake of a world financial crisis did much to bring on the Second World War, and there are populist politicians, in the United States and elsewhere, willing to try again. A regional war, in, say, the Middle East, could have destructive effects on essential international trades, notably in oil. In these and other aspects the machinery of international free trade is delicate and easily deranged. Precedent suggests that international law, naval power, and the enlightened self-interest of trading nations are relatively feeble defenses. I do not want to predict that another major war is coming soon, but it is certainly not impossible, and if there is any truth in my comparison with the late nineteenth century, the analogy is not encouraging. Navies have unequaled flexibility as instruments of deterrence and diplomacy, and in the present state of the world it seems to me that their most urgent task is to win the peace.

NOTES

This chapter appeared as an article in the *Naval War College Review* 66, no. 1 (Winter 2013), pp. 7–15.

1 "What experience and history teach is this—that nations and governments have never learned anything from history, or acted upon any lessons they might have drawn from it." Georg Wilhelm Friedrich Hegel, introduction to *Lectures on the Philosophy of History* (1832).

2 J. M. Keynes, *The General Theory of Employment, Interest and Money* (London: Macmillan / Cambridge Univ. Press, 1936), p. 383.

3 Charlemagne [pseud.], "In the Brussels Bunker," *Economist,* September 17, 2011.

4 Richard E. Neustadt and Ernest R. May, *Thinking in Time: The Uses of History for Decision-Makers* (New York: Free Press, 1986), p. 235.

5 A recent contribution to the large literature on this theme is John W. Dower, *Cultures of War: Pearl Harbor, Hiroshima, 9-11, Iraq* (New York: W. W. Norton, 2010).

6 Peter Ward Fay, *The Opium War 1840–1842: Barbarians in the Celestial Empire in the Early Part of the Nineteenth Century and the War by Which They Forced Her Gates Ajar,* 2nd ed. (Chapel Hill: Univ. of North Carolina Press, 1997), pp. 299–303.

7 The remark is usually attributed to Mark Twain, but there seems to be no good source for it.

8 Colin S. Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War* (New York: Free Press, 1992), p. 142.

9 Some elements of this comparison can also be applied on a smaller scale to Iran.

The President, U.S. Naval War College, takes great pleasure in awarding

The Hattendorf Prize for Distinguished Original Research in Maritime History

to Paul M. Kennedy, C.B.E., B.A., D.Phil., F.S.A., F.B.A., F.R.Hist.S., J. Richardson Dilworth Professor of History, Yale University.

The Naval War College is pleased to recognize you as the Hattendorf Prize Laureate. This award is fully merited by your distinguished achievements as an assiduous historical researcher as well as the author of pathbreaking studies on Britain's naval history and the role of navies in the rise and fall of great powers. Your work, embracing more than five hundred years of history, shows not only an impressive command of sources but a unique comparative and interdisciplinary approach for examining naval history. In its scope and ambition, your work has been compared to that of the great historians Leopold von Ranke and Arnold Toynbee. Your innovative and wide-ranging approach to the writing of naval history has inspired other scholars to examine the importance of sea power for shaping the course of international history. In the tradition of Alfred Thayer Mahan and the Naval War College, you have written compelling narratives that show the interrelationships of sea power and land power, technological innovation and naval warfare, economic wherewithal and naval strength, and grand strategy and high politics. This impressive body of historical scholarship has not only influenced the work of other historians but reached a much wider audience and made a signal contribution to informing policy debates about grand strategy in the public arena. By breaking down barriers to interdisciplinary study, by integrating a wide range of knowledge, by making a contribution to policy discussions, your works have themselves become prizes for us to read. This award honors you and your work, expressing appreciation for your distinguished academic research, insight, and writing that contribute to a deeper historical understanding of the influence of sea power on international history, and the rise and fall of great powers.

Presented this 20th day of November 2014 at Yale University, New Haven, Connecticut.

P. Gardner Howe III
Rear Admiral, United States Navy
President, Naval War College

II

The Influence of Sea Power upon Three Great Global Wars, 1793–1815, 1914–1918, 1939–1945

A Comparative Analysis

PAUL KENNEDY

While many great and extended conflicts involving the use of the sea have been fought over the past two thousand years, the three most notable in modern times were undoubtedly those struggles for global mastery in the years 1793–1815, 1914–18, and 1939–45. Each of these conflicts has produced a plethora of detailed works upon aspects of the war in question, but the profession has avoided making a comparative study of them to draw broader conclusions about the influence of sea power in the modern world.[1]

This chapter makes an attempt to do that, and with a particular interest in examining why the exercise of naval force during the second of the three conflicts is generally regarded as having had much less effectiveness than in the other two. Examining why naval power in 1914–18 had much less "influence" than its prewar advocates hoped might then help us to a better understanding of the limitations of naval force as well as of its positive capabilities. Above all, the essay is interested in the changing contexts in which sea power had to operate over these one hundred and fifty years of what one scholar nicely termed "the influence of history upon sea power."[2]

This is a lengthy argument, and so the structure of the essay below has been divided, rather obviously, into wartime and peacetime sections. Since the great naval struggle for mastery between 1793 and 1815 is generally regarded as the apotheosis of sea power in action, no detailed account is offered below of the many great battles that took place within those years, or of where British diplomacy and naval influence successfully marched hand in hand, as in the Baltic, or of the campaigns in the Eastern Seas.[3] What seemed more important was to produce a reasonably brief structural analysis of why it was that sea power played such a prominent role in a struggle for the mastery of Europe that in the final analysis obviously had to be settled by military victory over Napoleon on land. Not all European great wars saw naval power play a significant part; indeed, the greatest in recent memory—the Thirty Years' War between 1618 and 1648—had little to do with the sea, or the sea with it. Why it was different in the titanic French

Revolutionary and Napolonic Wars therefore obviously requires explanation before the rest of this essay can unfold.

From time to time this text engages with the arguments and presumptions of Captain Mahan regarding how sea power exactly did influence the wars in question. This is not done in any intellectually hostile way; it simply seeks to offer a reality check upon whether it was sea power itself that caused the outcomes claimed, and if completely or to a lesser degree. It also attempts to test the story of these wars against the strategic theories of the two greatest of Mahan's "foils": Sir Julian Corbett, with his claim that it was command of control of the ocean routes (not the decisive battle) that counted; and Sir Halford Mackinder, with his claim that it was land power, or who gained control of the great West European landmass, that would count most in the outcome of modern wars.[4]

To undertake a comparative analysis of the influence of sea power upon certain earlier wars—say, between the War of the Spanish Succession, the Seven Years' War, and the American Revolutionary War—is not so difficult, simply because so very much about navies and warships stayed the same, and because the battles largely took place within the very similar constraints of time and tide, during the high point of the age of fighting sail. This was no longer the case after the early nineteenth century, because of two enormous, and separate, changes in historical conditions. While the 1793–1815 campaigns took place in the pre–Industrial Revolution era, the circumstances under which the admirals of 1914 had to fight were dramatically different. Further and very large changes in the condition and circumstance of navies were also to occur in the much briefer period between the second and third of the great global wars analyzed here. The British Navy of, say, 1940 may have seemed very similar to that of a quarter-century earlier, yet so much had changed, especially in regard to the rise of air power, both carrier-based and land-based. Further, the global naval balances, especially in the Far East, were now quite altered from those of 1914. Captain Mahan, in summarizing the "elements of sea power" in his first, great work, felt that they belonged to the "unchanging order of things, remaining the same, in cause and effect, from age to age."[5] It is the intention of this essay to test if that was really so, given the stupendous impact of the Industrial Revolution upon warfare, and the special influence of air power upon fighting in the years after 1919.

It follows that a very large part of this chapter has had to focus on the two periods between the wars. While not originally foreseen by the author, it became increasingly clear that no analysis of the influence of sea power upon history could be made unless maritime affairs were tested against change over time, between the great conflicts, especially change driven by the onset of newer technologies. It is not unreasonable to claim that Nelson himself would have been very familiar on board Blake's flagship of 150 years earlier; but Jellicoe and Nimitz would have been quite

lost on a century-older warship. "Sea power in an age of change" is thus the core theme, and implicit title, of the present investigation.

1793–1815

Since this war ended with Napoleon's surrender after being defeated by a great land-coalition force at Waterloo in 1815, it seemed incumbent upon Mahan to make his well-known claim that "those far distant, storm-beaten ships, upon which the Grand Army never looked, stood between it and the dominion of the world."[6] Writing then as a professor at the Naval War College, and as the advocate of a much larger American Navy, his position was an understandable one. He had to convince readers, including perhaps congressional skeptics, that sea power counted in world affairs, and the British struggle against Napoleon offered him much evidence for that claim. Later scholars have not contested this. After all, the 1793–1815 conflict in Western Europe was mainly a struggle between three naval nations, Britain, France, and Spain, such that if any one side gained at sea the other was very adversely weakened; each intruded upon the other, and therefore navies very much counted.[7]

The geography of these wars at sea was thus of overwhelming significance; it intruded at every stage, and to a degree unimaginable in the modern jet age. Nothing here was new, for geography had played the same critical role in the five previous Anglo-Spanish-French conflicts between 1689 and 1783. Britain benefited, of course, from its insularity and freedom from invasion by land; and after 1603 and 1707, by its union with Scotland. In the age of sail, it benefited from the prevailing currents and winds that so often pinned the French fleets into their harbors, and from an array of good naval bases from Devon to the Thames. It benefited to an incalculable degree by the possession of Gibraltar (as it would again in 1940–43), and also from its possession of Halifax, Kingston, and, very soon, Malta and the Cape. But in a struggle against France and Spain geography did not favor Britain to the extent it did in its wars against the Dutch, the Danes, or Wilhelmine Germany. Franco-Spanish raiders and larger squadrons could get out to the Atlantic and beyond, and did so repeatedly; and they also, of course, possessed good harbors in the Mediterranean itself. All these waters were contested space, therefore, which is why the naval battles themselves (the Glorious First of June, Cape Saint Vincent, Trafalgar, and, farther north, Camperdown and Copenhagen) were invested with such importance and fought so keenly by each side. Little wonder that Mahan was so impressed at the idea of a main battle force that would sweep all before it, and thus ensure command of the oceans.

Since these were wars of endurance—twenty-three years of struggle—victory would go to the power with the deepest purse and the greatest economic capacity. Ostensibly, this would have been France, with more than twice the population of Britain and a rich agricultural and commercial base, and a commensurate taxation

capacity; but after Colbert's earlier efforts, this potential was never realized, and from the 1720s the advantage swung to a Walpolian Britain, which gave the country an adamantine political strength and an astounding creditworthiness. The hard figures told the story; halfway through every great conflict, the U.K. Treasury could continue to float loans (at much lower interest rates) when its rivals could not. As Osterhammel explains, between 1688 and 1815 U.K. gross national product rose threefold and taxation revenue fifteenfold; Britain could raise more than twice as much in taxes as France.[8] By the later stages of the war against Napoleon, the island-nation had become a gigantic export-producing machine. If France had been able to shut it down, through the Continental System and other embargoes, London's war strategy would have shuddered to a halt. That never happened; Britain faltered (in 1797, when the Bank of England suspended specie payments), but its insularity, ever-growing economy, political resilience, access to newer global markets, and strong naval edge kept it going. And it still had money to subsidize major and minor European allies to take up the fight against Napoleon, by funding their armies and providing their weapons. Again and again, French victories in the field blew apart these coalitions; and every time they were reassembled and refunded, France's manpower bled a little more and its capacity to interrupt Britain's space grew less. Finally, Napoleon's twin bouts of imperial overstretch, into Spain and into Russia in 1812–14, gave London the chance to play all its cards—naval pressure, massive subsidies, a Wellingtonian army—to assist in toppling France's gigantic bid for mastery.

The later historian is tempted to say: given the many above factors in Britain's favor, all that was needed was for it to maintain a strong and unchallengeable navy, under steady and intelligent leadership. Such leadership for pursuing the war was there, even with a stricken king and when cabinet coalitions were shaky. From the very onset of the French Revolution, governments in London committed enough funds to build a huge fleet of line-of-battle ships and cruisers, with supporting dockyards, munitions, and manpower. While the system groaned frequently under the immense strains of combating the joint Franco-Spanish fleets and their massive resources, it never snapped. The final advantages—of Nelson's unique charismatic leadership in battle and the remarkably high quality of so many other admirals and captains (Collingwood, Saumarez, Hood, Cochrane—where does the list stop?)—can be added in here, but how exactly one weighs each of the above elements of strength that made up Britain's war machine is impossible.

What is clear is that one has here a rare historical example of national and naval strength that was partly foreshadowed (in 1714 and 1763) but now came to full fruition. The conflict had been so lengthy, and drained so many resources, that it left all the other participants exhausted, winded, and in need of years of recovery. Little wonder that the Prussian general Gneisenau afterward inveighed against that

"blackguard" Napoleon whose ambitions had plunged the Continent into war, leaving Britain free to exploit the fruits of the world.[9] In all this effort, the role of the Royal Navy had counted so much—wherever I go, Napoleon complained, I find it in the way—but it was as one strand, one part of the whole. Mahan was therefore entirely justified in enthusing about the influence of sea power upon history here, but it was an influence that had worked because all the other strands were in place as well.

1815–1914

No period in the maritime history of the previous two thousand years came close to the special strategic and political circumstances of the century after the surrender of Napoleon. When Rome dominated at sea, it was merely over Mediterranean waters; Adm. Cheng Ho's great expeditionary fleets came and went across the Indian Ocean, without lasting impact; and Philip II's navies were repeatedly challenged in the Atlantic, the Caribbean, and the Mediterranean. But here, for the first time, was a global maritime empire. To some degree, the post-1815 Pax Britannica can be explained on negative grounds: it happened, and was allowed to happen, because the other major powers did not contest British naval predominance outside Europe during these many decades. Certain European countries (Prussia, Portugal, Greece, the Italian states) usually found the Royal Navy's protection abroad a distinct benefit to their shipping and seamen in those midcentury decades of growing free trade. The French and Russian navies posed sporadic threats, but on certain other occasions were to be found cooperating with British naval forces, as in their joint crushing of Mehemet Ali's fleet at Navarino in 1827; or, at least in regard to the French Navy, in shared large-scale operations in the Black Sea against Russia during the Crimean War. For a while after 1815 the fast, very heavy American frigates gave the British Admiralty cause for concern, but American attention to sea power, and to building a substantial national naval force, was never very sustained during the nineteenth century.[10]

But the Pax Britannica also existed because a long line of British governments and parliaments was determined to pay for command of the sea. There was no lack of pressure by members of Parliament to keep naval budgets low, yet spending on the fleets never fell to hopeless levels, and ironically it was the Liberal side of the House that most insisted upon maintaining a decent navy—the more so to keep Britain from being so weak internationally as to rely upon continental alliances. But of course that political prejudice against entanglements rested conveniently upon an economy which by the 1850s, in Hobsbawm's calculation, produced two-thirds of the world's coal, half of its iron, and five-sevenths of its steel.[11] Maritime preeminence, imperial advantage, technological strength, and isolationist preference all nicely reinforced each other at this time, and no foreign competitor came close, or seriously attempted to be a competitor.

Moreover, the naval predominance that was the Pax Britannica was not significantly affected, at least for quite a long while to come, by the advent of steam power and the Industrial Revolution. That may seem remarkable given that fossil fuels could be found in many parts of the world, so competitors had at least the raw potential for imitation and catch-up. But in the first instance what the Industrial Revolution did was to enhance vastly the already great economic and productive power of Britain itself, both vis-à-vis its traditional rivals (some of whom, like France, were not so blessed in resources of coal and iron) and vis-à-vis non-European societies in Africa and India that had not even the elemental capacities for Western-type modernization. As British manufactured goods streamed out across the globe in the 1840s and 1850s, the world seemed to be ever more the "oyster" for the victors of Trafalgar and Waterloo. Thus, the rising exports of steam locomotives and railway equipment to the Rhineland and Pennsylvania seemed only to tie such markets to British manufacturing centers and bring large profits, and not to be enabling future world rivals. And it would be some time before the extensions of foreign railway networks began to create new centers of geopolitical power in the American Midwest and across the Ukraine, far from the workings of any future blockade. And since it was in south Wales that there occurred the very best steaming coals for all types of ships, it seemed that industrialization merely gave one further advantage in world power indices to a nation already almost unfairly endowed by geographic and other advantages. The longer-term consequences of the Industrial Revolution upon sea power were only to be appreciated, and then just partly, in the final quarter of the century, when other powers began to close the gap.[12]

One can gain a better understanding of all this if the "long nineteenth century" in its naval dimensions is divided into three chronological subcategories: that between 1815 and circa 1885, described above; between 1885 and 1906; and between 1906 and the First World War. This at least was how it was in regard to the Royal Navy's all-important global fleet distributions, as they were amended in each of these times. Geography of course could not change, but the relationship of the leading naval powers to each other did change as admiralties adjusted their naval programs, vessel types, and fleet dispositions, and the world's leading naval power then sought to respond. These three chronological cutoff points also reflected some big changes in warship design, the increasingly stepped-up size of naval budgets, as well as the arrangements of the active fleets. There were some exceptions to this general three-part schema, but on the whole this breakdown can help readers of the period understand and locate such well-known events as the coming of the Two-Power Standard, the *Dreadnought* "leap," and Tirpitz's naval laws.

Mention of these later and very rapid eruptions in naval matters again allows the reader to see better why the maritime and geopolitical contours of the 1815–85

years appear so relatively placid by comparison. Though there were significant changes in naval architecture, there was little standardization as warships sprouted a rich variety of profiles, funnels, masts (including sails), and gun calibers with little or no standardization of type compared with, say, the post-1919 era. The greatest war of the midcentury, the U.S. Civil War, had been overwhelmingly a land-based struggle, with sea power operating along its fringes. Bismarck's three successful wars of unification in the 1860s were achieved without sea power being evoked at all. The Anglo-French naval operations against Russia during the Crimean War showed the difficulties of applying maritime pressure against such a landlocked, agrarian nation. For long decades after 1815 not much of naval significance happened in the waters outside Europe apart from antislavery patrols and the Opium Wars; later admirals' memoirs could happily recall their frequent times as young lieutenants visiting Valparaiso and Brisbane. The many doings described in Osterhammel's recent *Transformation of the World* rested, lightly and easily, upon an almost invisible and softly applied British naval preeminence.[13] An integrated world of commerce and mainly peace was underpinned by the iron frames of the Royal Navy.

The significance of sea power within the Great Power system increased significantly after the mid-1880s, when both the French and Russian governments, already colonial rivals to Britain in the Mediterranean, Africa, the Far East, and Southeast Asia, embarked upon sustained and very expensive programs of capital-ship building. This so shook the British press and Parliament out of their complacency that successive London governments could never again be free of the charge that they were underspending upon the Royal Navy, even when the Two-Power Act (i.e., the Naval Defence Act of 1889) and various expensive successor bills were announced.[14] Naval spending ballooned, but so too did public agitations about a foreign invasion of England, the loss of control of the Mediterranean, and the end of the Pax Britannica.

If the British Admiralty and its planners were shaken by the sudden rise of the French and Russian new navies, they had every reason to be so. Geographically, those fleets would be very hard to handle. The fear was that fast and heavily gunned French armored cruisers, speedier than any Royal Navy battleship and more powerful than any British cruiser, could operate out of such well-situated harbors as Brest, Cherbourg, Toulon, Algiers, Dakar, Madagascar, Reunion (Indian Ocean), Saigon, even French West Indian ports. Russian raiders could operate out of Vladivostok, and later Port Arthur. A combined Russian Black Sea fleet and a French-based Mediterranean force might possibly threaten Constantinople and the Eastern Mediterranean. In that case, the critical British Empire trade routes through the Mediterranean would have to be suspended (as they were, of course, between 1940 and 1943).

All this offered a geostrategic nightmare, and one that seemed to have no obvious solution. Build and build as the Royal Navy did, could it really place strong blockading squadrons off all the above ports all the time, if French and Russian squadrons were to be based there? It would be an operational and logistical nightmare. How also could an offshore blockade work without grave danger if the French chose to construct dozens of fast-attacking torpedo vessels (as they did), experiment with minefields and longer-range torpedoes, and design submarines of an ever-longer range? The close blockade was over, and the medium-distance offshore blockade was already at severe risk.[15]

This was the critical naval dimension to the "crisis of Empire" situation that faced British planners around the year 1900. Military disasters in South Africa led to huge increases in British military spending, at once far larger than anything spent upon the fleet. Russian military advances seemed to threaten across Asia. The great powers were snapping up Chinese ports—and thus newer naval bases. A war with France over the Nile Valley had just narrowly been avoided in 1898. Great new navies were being laid down by the United States and Japan, rising extra-European nations that would be impossible to blockade in any future war. The Pax Britannica was at an end, even before a great modern German battle fleet began to be laid down in the North Sea. Had the German Navy remained modest and second-class in size, and Germany stayed friendly throughout the Edwardian years, the British global and imperial crisis would have remained. But the German Navy did not remain modest in size, nor did Germany stay friendly.

Viewed from this larger gloomy perspective, it is now easier to understand that immense flurry of defense measures and newer naval policies that the British engaged in between about 1895 and 1906—measures that have drawn the attention of a whole host of recent naval historians of these years.[16] The two-power standard was asserted again, and again. Battleships became larger and larger, to accommodate ever-bigger gun calibers, and at the same time became more and more heavily armored, and faster and faster—and much more expensive in consequence. Giant, fast, armored cruisers, even more pricey than battleships, were laid down. Flotillas of torpedo-boat destroyers were constructed, to protect those battleships from attack. Advances were made in various new forms of fire control, each with their impassioned claimants. Plans were also advanced for super-fast, heavily gunned though lightly protected types of battle cruisers that could scout in advance of the main battle fleet or range along imperial trade routes. Fresh undersea cables were laid along those same imperial maritime routes. Harbor defenses from Dover to Gibraltar, and from Toulon to Dakar, were expensively renewed. Qualitatively and quantitatively, navies were altering fast in this period, but none felt the pressure more than the number one naval power.

The revolution in naval affairs that so threatened Britain, its imperial possessions and maritime routes, and the Royal Navy in the two decades between around 1885 and around 1905 was eventually handled, and greatly eased, not by some phenomenal new technological deus ex machina, as Admiral Fisher and other reformers sought, but through diplomacy—that is, by important changes in great power relationships that took place between Britain and the other nations precisely in these years. In the Mediterranean, Turkey, Spain, and Austria-Hungary remained overall friendly, and Italy very much so. In the Far East, Japan signed an alliance with Britain, crushed Russian land forces, and smashed the Russian battle fleet (1905). In the Western Hemisphere, the rising American power was accommodated through territorial concessions and a political rapprochement. Most important of all, Britain entered into a series of colonial agreements between 1904 and 1907 with its two greatest overseas rivals, France and Russia, which (provided they were kept) took away their threats to the empire, and of course to the imperial sea-lanes. The nightmares of the 1890s were receding, although it was understandable that most admirals did not at first understand what was happening, and many feared that the new French and Russian rapprochements might not last. By any objective strategical measurement, however, Britain's global position was far more secure by 1906 than it had been, say, in 1890. And, to repeat an earlier point, all these diplomatic realignments could, and most probably would, have taken place even had the German fleet remained small and friendly.

Seen in this light, the final phase of the long nineteenth century (1906–14) is easier to comprehend and requires only a few broad strokes here. The new German Navy was being built, by Tirpitz's intent, to affect British policy and to make London more amenable to Berlin. It was to be a very large but short-range battlefleet navy, and thus to have its greatest influence between Wilhelmshaven and the Thames. German public opinion was now virulently hostile, and German diplomacy under the kaiser unpredictable. As pressures eased upon Britain's world position, a new danger seemed to have arisen much closer to home. British warship numbers were trimmed in the Far East, the Mediterranean, the West Indies, and on lesser stations. Land for a new battleship base was prudently purchased at Rosyth as early as 1903. The new *Dreadnought* battleship and *Invincible*-class battle cruiser appeared after 1906; they had not been designed deliberately against Germany, of course, but now they were there—and the swift German intention to follow suit showed that the new High Seas Fleet would stay as the chief threat to Britain's maritime security, and the more frightening because so close. The Anglo-German naval race consumed all the headlines, agitated the British Parliament, and gripped successive British governments.[17]

But Britain's security position was made much easier by the military-strategical decisions of two men: Gen. Alfred von Schlieffen and Grand Adm. Alfred von

Tirpitz. Schlieffen and the Prussian Army planners who followed him played such a vital, albeit negative, role because they completely ruled out the diversion of their armies for an invasion of England. It would have been very difficult to carry out such an invasion in any case, but it simply was not going to happen, because the Prussian General Staff's obsession throughout this time was the swift invasion of France, via Belgium (possibly also via the Netherlands as well), as well as gigantic campaigns in the east. This prospect meant that, like it or not, British governments now had to consider a threat to the European land balance of power for the first time in a century—a contingency for which the Royal Navy, not liking this at all, would also have to adjust. And Tirpitz eased Britain's strategical dilemmas, ironically, by his unwavering insistence upon constructing a German Navy solely, or overwhelmingly, for deployment in the North Sea—the pre-1914 naval archives show him firmly resisting all schemes to have a larger German naval presence in the Mediterranean and outside Europe, as reducing the effect of his "lever point" against Britain in home waters.[18] So it was with reluctance that he viewed the existence of Souchon's small force in the Mediterranean and of von Spee's squadron in the Far East. By the same token, Tirpitz opposed allocating large monies for enhancing naval harbors in the German colonies. So long as he held office, British imperial trade routes were not, despite any apprehensions, going to be in much danger in the years before 1914.

The historian is left only to speculate how the naval strategical situation would have looked had pre-1914 German governments decided instead to construct and then deploy squadrons of fast, powerful cruisers and battle cruisers, and even lesser squadrons, in ports in West Africa, Southwest Africa, East Africa, New Guinea, Samoa, the Carolines, and Tsingtao, instead of laying down yet another expensive battleship flotilla for the High Seas Fleet. Would this have seemed like a new version of that scarcely faded nightmare of powerful French squadrons at Dakar and Madagascar? Probably not, because Germany could offer a far weaker logistical support system to an overseas base network than could France. Yet because Tirpitz prevailed in his fight against the German Admiralty Staff, that alternative strategy did not happen. Instead, and ironically, the natural geographical advantages that the Royal Navy had had against the Dutch challenge in the seventeenth century now returned, almost as an act of strategic good fortune, to hem in the newer naval challenge of the kaiser's improperly named High Seas Fleet. Sea power had not diminished in importance, of course; it simply was returning to manifest itself in an older, familiar locale.

1914–18

The prewar constellation of prior diplomatic arrangements, military preparations, and the overall "correlation of forces," as well as the unalterable geographical situation, thus set limits and opportunities for the workings of sea power after 1914,

affecting both the Allies and the Central Powers alike. The existing military plans and contractual arrangements of Russia, Austria-Hungary, and Germany meant that a vast land struggle, far from the sea, would take place once decision makers in those capitals decided upon war rather than further negotiation. One of those contracts—namely, France's commitment to its ally Russia—triggered Berlin's declaration of war upon Paris and brought the conflict to Western Europe as well. While a fight against Russia and France seemed deeply satisfying to many among Berlin's leadership during the July crisis of 1914, the rigidity of their Schlieffen Plan actually meant that Germany first attacked neutral Belgium, thus triggering the intervention of Britain and its empire against the Central Powers, and turning the struggle into a true "world" war. Wilhelmine Germany was now simultaneously engaged in a massive land conflict and a premature maritime struggle against a far larger naval power—all this, unsurprisingly, to Tirpitz's dismay and frustration. In his view, Berlin had unwisely and prematurely pushed for a conflict in 1914; there was no sleepwalking into war here.[19] And Tirpitz had fair cause for dismay, for, while there were good prospects for a militarily efficient Germany to overcome its next-door neighbors, at sea the odds were badly tilted against the High Seas Fleet.

Several early actions in the war confirmed Germany's weaknesses overseas, but, coincidentally, other events in the southern North Sea and at the Dardanelles suggested that sea power's effectiveness along the littoral waters of a huge continent had been greatly changed and reduced since the age of fighting sail. On the declaration of war, Germany's two relatively small overseas squadrons were left exposed, like foxes in an open field. Because Britain's Far East ally, Japan, came immediately into the war in order to seize Germany's possessions in north China and the Central Pacific islands, Adm. Graf von Spee's squadron had no alternative but to flee across the entire Pacific to the tip of South America, where it smashed a very weak Royal Navy cruiser group at Coronel (November 1914) before in turn being eliminated at the Battle of the Falkland Islands (December 1914) by a force of fast battle cruisers sent out by Admiral Fisher from home waters. One could say that imperial flotilla defense was working here, then, but afterward there was nothing for HMS *Inflexible* and *Invincible* to do but to come home, to risk more dangerous close-water threats (HMS *Inflexible* was heavily damaged by Turkish shore batteries and a mine at the Dardanelles, beached, and then recovered) or face Germany's powerful squadrons in the North Sea (HMS *Invincible* was sunk by plunging fire at Jutland).

Secondly, and even earlier, von Souchon's *Goeben* and *Breslau* had fled through the Mediterranean and forced themselves for refuge at Constantinople, thus partly helping to bring Turkey into the war on the side of the Central Powers (also in November 1914), which in turn led to Anglo-French counteractions and expansion across the Middle East. With an Allied naval blockade in operation in the Atlantic and the Channel and from Gibraltar, and with all Germany's overseas cable

communications cut off, there would be no great naval campaigning in overseas waters in this particular war. And Italy's entry into the conflict (May 1915) kept Austria-Hungary's fleet bottled up as well. Naval clashes in the Baltic and Black Seas were interesting, but local affairs. Only America remained as a major neutral force, albeit tied by finance, trade, and communications much more to the Allied side. So the greater part of this war was, in essence, a giant Mackinder-ite land struggle, with surface navies operating at the margins; it could not help being so.[20]

The destruction of Germany's prospects overseas suggested that the workings of sea power were running in Britain's direction, but further encounters pointed to another, unsettling fact: the coming of certain nineteenth-century technologies, when converted into weapons systems, was going to curb the application of maritime force along well-defended hostile shores, and even a bit farther out. In October 1914, a single enemy mine sank the new battleship HMS *Audacious* off northern Ireland, a stunning example of what one would later call "asymmetrical warfare" and a precedent that deeply worried Jellicoe. Even before then, in September 1914, three large cruisers (HMS *Aboukir, Hogue,* and *Crecy*) patrolling off the Dutch coast were sunk by a small, elderly U-boat, causing the loss of a staggering 1,400 British sailors. As Corbett put it in his official history, "nothing that had yet occurred had so emphatically proclaimed the change that had come over naval warfare."[21] Close blockade was supposed to have been given up as Admiralty practice years before the war; now it decidedly was.

This left the far easier practice of the distant blockade of Germany's maritime commerce, taking advantage of Britain's favorable position over the entrances to the North Sea. Yet the hoped-for "squeeze" upon the German economy did not work as decisively as in prewar planning, partly because the Central Powers (with their extensive grain fields of the east) were to be largely self-sustaining in food supplies for much of the war, and partly because angry American protests about the interruption of neutral shipping slowed down the operation of the seaborne blockade of German commerce.[22] Economic warfare against the Central Powers took many forms—the cutting of cable communications, the suspension of German credits, the simple fact that the huge Anglo-German mutual trade spluttered to a halt (as did, of course, all German-Russian and German-French economic exchanges), the closing down of the access to British shipping for German goods, the purchase of supplies overseas that might otherwise have gone to Germany, and the now-cautious inspection of neutral shipping on the high seas—but the effects of this could not be swift, and the whole process was obviously much less visible to the public and their governments than the battles of the Marne and Tannenberg. Ironically, of course, land warfare was also to show itself less decisive and promising by the time of Ypres (1915), causing the generals on both sides to call for an ever-greater share of resources and manpower they now needed for carrying out vast,

industrialized warfare. All prewar planning assumptions, for land and sea, seemed confounded.

While it was patently clear that in this war the Royal Navy could not operate in the Baltic as it had done in the Napoleonic and Crimean Wars, Admiralty planners and their pugnacious First Lord, Churchill, did still think that they could strike at Constantinople and alter the outcome of the war in the Black Sea and across Eastern Europe itself.[23] However, the disaster that hit the first naval operations against the Dardanelles—the loss and crippling of so many British and French battleships upon the Turkish-laid minefields on the single day of March 18, 1915—was not only spectacular and devastating in itself. It finally confirmed that the older application of naval force against enemy shores was now impossible in a new age of small, "killer" weapons like the mine, torpedoes, entrenched coastal gunnery, fast torpedo boats, and submarines (the bombing of warships by aircraft had not yet arrived).

Then the second stage of the Dardanelles campaign—the failure of ever-larger Allied armies to break through at Gallipoli and advance upon Constantinople—showed that the classic weapon of amphibious warfare was also crimped unless the invading forces were to be far better equipped and trained than they were at this time. Future militaries like the U.S. Marine Corps at Okinawa learned much from studying the failures of the Allies at the Dardanelles.[24] At the time, of course, that meant nothing. What seemed to be happening was that while the Central Powers were quite unable to shake the Allied command of the oceans, the Allies could do little or nothing to hurt their foes from the sea. Worst of all, of course, France and Britain also could do nothing to help their beleaguered Russian ally except, so their high commands argued, by massively increasing land pressures along the Western Front.

But the greatest confounding of the hopes of Allied sea power advocates lay where they had expected a decisive blow against the German Navy to occur—in the North Sea itself. Geography was not a friend to Jellicoe here. Enemy vessels operating from Wilhelmshaven could get to England's east coast more swiftly than could the Grand Fleet coming out of Scapa Flow, and even when the two navies met the actions were fast, furious, confused, and attended by mists, poor communications, and the failure of command and control. What therefore took place between 1914 and 1916 in these North Sea encounters was much more of a cat-and-mouse game than a decisive battle-fleet action like Trafalgar. Early German bombardments of the towns of Scarborough and Whitby shocked the British nation, so the Admiralty had to conjure up a credible response in these new and trying circumstances. The Grand Fleet could not be relocated south with individual battleship squadrons based in the Tyne, Humber, Harwich, and the Thames, for bringing them together again off, say, Scarborough Head would be a signals nightmare (signals turned out

to be a great Royal Navy weakness), and the possibility of one of them getting into a running fight with Hipper's dangerous battle cruisers or even Scheer's entire fleet was too daunting to contemplate. The best that could be done, and this was sensible enough, was to base Beatty's battle cruisers at Rosyth and to fill southern ports such as Harwich with cruiser and destroyer flotillas—and rely upon the Germans' loose wireless chatter to indicate when the High Seas Fleet might be emerging. Thus the Grand Fleet would stay far up north—leaving Jellicoe, however, with another operational problem: should it, upon alert, steam south as fast as possible, shrugging off the risk of newly strewn enemy mines, or proceed instead at around eight knots behind a screen of minesweepers, making things easier for U-boat attack, and being also possibly too late to help an outnumbered Beatty? Clearly, Rodney and Nelson had had no such problems.

All these reminders of space and weather puts the Anglo-German North Sea surface fleet encounters—off the Yorkshire coast, the Dogger Bank, even Jutland—in their context. The historian of an exact century later should be wary of being smart after these events. Jellicoe, Beatty, and Tyrwhitt were nervous, excited, and worried about a battle scenario that could emerge from the mists in less than fifteen minutes, and so, surely even more so, were Hipper and his bleary-eyed lookouts on the German side. Yet it is impossible to accept Churchill's hyperbolic claim that Jellicoe was the only man who could have lost the war in an afternoon. While the Dogger Bank clash delivered to the Germans a salutary spanking and a warning, Jutland in turn gave the thinly protected British battle cruisers a hammering and the nation a blow to its pride; gave both historians and participants the stuff for endless postmortems, claims and counterclaims; and also gave rise to a large literature, much predictable and of relatively low value.[25] It has never been shown—for how could it be?—that even if the Grand Fleet had lost, say, six capital ships and not three, the overall maritime balance the day after Jutland would have been much different. Nor does a British claim much matter that, had its deficient shells been replaced before the war, the hits that occurred on six further German battleships would have been fatal ones. Improved fire control here or improved shells there were simply not the point. Strategically, Jutland changed nothing. The British nation was understandably shocked at the loss of 6,094 seamen. But on July 1, 1916, on the first day of the Somme, the British Army lost 19,240 men out of a total of 57,500 casualties—and the British press moved on. The German High Command didn't care about Jutland, nor about an invasion of England. So what was Jellicoe to have lost?

The historian can be brief about what was left.[26] If the German Admiralty wished to bring the British nation to its knees after 1916, it seemed it had no practical alternative but to initiate full-scale and unrestricted U-boat warfare against mercantile commerce in the Atlantic, whether Allied or neutral. It thus traded off a high

political risk against its increasing post-Jutland naval ineffectiveness, and by April 1917 that risk playing had led to the entry of the United States into the conflict. That was simply too much. Provoking the British Empire into this struggle ensured that Germany would not win the First World War; provoking the Americans also to enter meant that Germany would lose. The odds, as A. J. P. Taylor pointed out sixty years ago, were simply too great.[27]

This did not mean that the naval situation for the Allies immediately became any easier, but it did become very different. Success in the maritime conflict was now counted by the tonnage of merchantmen sunk versus the number of U-boats destroyed and, above all, by the successful flow of New World foodstuffs, munitions, and fighting men to British and French ports during 1917 and 1918. And the losses of merchant ships were huge and frightening—3.6 million tons in six months—yet they were never enough to achieve the German Admiralty Staff's purpose. And the British return to the older practice of convoy gave the operational and tactical advantage to the Allied escorting fleets; if the U-boats wanted to score, they would have to attack the convoys and thus provoke counterattack.

Obviously, in this great struggle, neither the Grand Fleet nor the High Seas Fleet counted very much, except as a manpower drain, and as neutralizing each other. To return to a consideration of the three grand theories about sea power mentioned above, one might conclude that the eventual Allied victory in late 1918 chiefly came, not from a big battle-fleet struggle in the North Sea (Mahan) but from the linked strategies of keeping open the North Atlantic lines of communication (Corbett) while beating off Ludendorff's bid for land supremacy (Mackinder). This was difficult for fleet admirals and their later historians to swallow.

This did not, of course, mean that sea power had not worked at all, but that it had operated, and worked, in a very different context from that anticipated by most prewar planners and policy makers. When the conflict opened, the signal was sent out that "The King's Ships Were at Sea," and so they were, or at least the smaller patrolling vessels and the submarines were.[28] But the heavier surface warships came out infrequently, not only because the waters were dangerous but also, importantly, because their actual presence at sea was ever less necessary. The preponderance of naval force, plus geography, had ensured Allied naval supremacy in any case. It just was harder to explain that when the war ended and the leaders of the victor powers assembled at Versailles. The advocates of the influence of sea power had a far easier time of it after 1815 and 1945.

1919–39

There was to be no long century of relative naval peace following 1919, but in the mere twenty-year interlude a remarkable amount did occur that would affect the workings of navies. History speeded things up, as it were. One hundred years afterward, one can see rather better than did contemporaries why the very special

international and domestic circumstances after the First World War wrought havoc upon any traditional attempts to develop a naval policy; indeed, wrought havoc upon the usual ways of thinking about sea power itself. The new features to this altered strategical landscape were daunting, and admirals everywhere, and the policy makers who controlled them, were at first understandably daunted, distracted, and confused by all this.[29] By the second half of the 1920s, however, the landscape of world affairs had settled down a bit and seemed altogether more reassuring.

With a suspicious U.S. Senate and American public forcing Woodrow Wilson and his successors to pull back from leading the efforts to create a post-1919 world order, it was left to policy makers in London, Paris, Rome, and other capitals to shape the contours within which navies would operate and naval planners would work. What is clear is that the challenges uppermost in the minds of Lloyd George and his political contemporaries were very definitely not those of, say, Admirals Jellicoe and Beatty.

How could they be? Germany and Austria-Hungary had collapsed, and there was the threat of international mayhem across Eastern Europe as new nationalist forces strove to establish boundaries and governments. Most of the regular armies of the First World War had dissolved and gone home, leaving those of France, Belgium, and Italy, intact if vastly reduced. Polish, White Russian, and Bolshevik forces fought on, with Lenin eventually gaining a breathing space for his new, puzzling regime. All this, of course, took place on land, indeed on Mackinder's very "heartland" of the Ukraine, and therefore had little to do with the Western admiralties' efforts to create their postwar international order. Urgent European issues—on boundaries, war debts, reparations, plebiscites, working out League of Nations practices, and carrying out old-fashioned-type great-power diplomacy at places like Lausanne and Locarno—took most of the headlines of the day; to France especially all this was crucial. In parallel to negotiations over the Saarland and upper Silesia were those over the future boundaries of the entire Middle East, but even here naval considerations played no role because there was no challenge to British and French imperial dominance, and nor was there in Africa. Commonwealth navies were shrinking and Commonwealth armies dissolving, following the American lead. All the civilized *(sic)* Western world seemed to want was for its armies to come home, allowing governments instead to focus upon reconstruction and social priorities, in which context all defense expenditures had to be brutally cut. Generals were now despised, and navies told to find their place and think themselves lucky that their budgets were not further slashed.

Despite the navalists' dismay, this was not the end of sea power, and in fact the setting of reduced, economy-based priorities by the governments in Washington, London, and Paris gave navies a rather good, if limited, circumstance in which to "find their place." All the admirals—including the Japanese, French, and

Italian—kicked, screamed, and protested as they were forced into the straitjacket of the powerful clauses of the Washington Treaties of 1921–22, but when their navies emerged from this harrowing experience into the placid years of the later 1920s things did not seem so bad after all. Even the very fact that warship sizes were standardized by displacement and gun caliber grew to be reassuring to planners and designers; a heavy cruiser had eight-inch guns, a light cruiser less than six-inch guns. Each class—carriers, battleships, cruisers—was neatly described and circumscribed.

The German Navy was no more, chiefly sunk at its own hands; the French Navy was under firm political control; the Italian Navy small and inward-looking; and no other European navies counted. Sea power, as manifested by large fleets, was held by the three great navies of Britain, the United States, and Japan, and all were being compelled to find their diminished position within their nation's current list of priorities. Treaties established the maritime status quo regarding territories and naval bases across the Far East and Pacific; and in the Atlantic and Mediterranean the Royal Navy enjoyed an uncontested superiority, with the French and Italian navies well behind. The American and British admiralties were still going to quarrel over cruiser sizes and numbers right through until the London Naval Treaty of 1930, but this was a mild affair compared with prewar passions. A better expression of what was going on might be captured in photographs of the great harbor of Hong Kong in these years, with the 5th RN Cruiser Squadron at anchor, under their awnings, while in the distance a few American warships peacefully took in fuel and other supplies. In the Mediterranean, French, British, and Italian vessels paid port visits. Not much else was going on. The age of frantic navalism was over.

The most interesting aspect to the story of evolving sea power in these years was not, therefore, navies, and certainly not traditional battle fleets, but the emerging newer technologies of warfare, especially in the air. Both the Royal Navy and the U.S. Navy experimented keenly with "flattops" after 1919, and although those very early vessels like HMS *Argus* and USS *Langley* were small and primitive it is really remarkable how swiftly the speed, displacement, size, and striking power of subsequent carriers became [greater]. HMS *Ark Royal*, for example, was laid down less than twenty years after *Argus* had put to sea. And the later carriers had to be so much bigger because aircraft in general were so much more powerful—the ships had to have a longer space for both takeoff and landing. The new dive-bombers, torpedo bombers, and high-level aircraft flew more swiftly, carried greater armaments, and came in so fast. The admirals may have pooh-poohed Billy Mitchell's claims in 1920, but by the late 1930s it is noticeable that all heavy warships, battleships, cruisers, and carriers were having ever more antiaircraft guns fitted. More importantly—at least as far as the Royal Navy was concerned, since it operated chiefly in European waters—the threat might come more from land-based air

power than from enemy carrier aircraft. Early in the First World War, mines and torpedoes had made a close-in naval blockade a thing of the past. But what if the threat of land-based aircraft pushed the more powerful navy into operating farther and farther from the shore? How limited was sea power's "influence" then?

The years after 1936 saw changes come thick and fast for all the major navies. The historically distorting naval "holiday" in capital-ship building was at an end, as were the total caps on fleet tonnages. Naval construction surged forward, in the British case in the form of the new *King George V*–class battleships, *Illustrious*-class fleet carriers, Town-class cruisers, and flotillas of fleet destroyers.[30] The American Navy also grew rapidly in the late 1930s, although it was not until the third Vinson-Trammel Act of June 1940 and the Two-Ocean Navy Act of the following month that legislation went through that would make it the largest naval force in the world by 1944. The three revisionist, fascist states were also investing heavily in new fleets. Italy was laying down powerful, fast battleships and heavy cruisers (although no aircraft carriers). Hitler's huge rearmament schemes also encompassed the German Navy, and if its initial laying downs were not large, they were enough to have London seek the controversial Anglo-German Naval Agreement (1936), a desperate effort to achieve a one-power standard in home waters while also being able to send a fleet to the Far East as large as Japan's. But the Japanese were also rebuilding, way beyond that calculus. Everyone was building, running faster to keep up, just as the shapes of the wartime coalitions of power took shadowy form. The Axis trio was moving: Italy in Ethiopia (1935), in Spain (1937), and in the Balkans (1939); Japan in China (1937); and Hitler across central Europe (1938–39). Britain and France stood once more together, diplomatically and navally, by 1939. The USSR desperately bought time, as did a neutralist, geographically favored United States.

In sum, by the eve of the Second World War sea power—always a different thing from navies, or from naval policies, or from naval technologies—possessed a form both familiar and yet unfamiliar. Command over the surface waters of the Atlantic Ocean, and of the Mediterranean, was being asserted, by the battle fleets of the prevailing Western navies (Mahan); and plans were simultaneously being made to protect the enormous yet scattered flocks of individual merchant ships making their way to port (Corbett). One giant commercial map of November 1937 shows the streams of little dots headed to British ports from La Plata, from the West Indies, around the Cape, past Freetown, through the Mediterranean.[31] And even two years later those Elder Dempster, Blue Funnel, P&O, and Compagnie de Suez merchant vessels must have all seemed reasonably safe. The Axis navies were locked into the North Sea and Mediterranean, and in the absence of a High Seas Fleet the surface balance of power was even more favorably tilted toward London and Paris than it had been in 1914.

But those vast numbers of Allied merchantmen were also more vulnerable because the greatest threat to their security now came not from hostile surface raiders but from an undersea menace that challenged the power of regular fleets to claim command of the oceans and threatened merchant fleets, grain carriers, oil tankers, and ocean liners alike. This was not completely new, of course; as described above, the early submarines had already shown their threatening capacities, in the North Sea by 1916, in the Atlantic by 1917. But many a traditional admiral, in Japan no less than in the West, had tried to brush away that fact, and the cozy international scene and naval holidays of the 1920s helped to perpetuate the illusion. And illusion it was. Four centuries of surface sea power, from Hawkins's *Revenge* to the new *Ark Royal* itself (sunk by a German submarine on November 13, 1941), had been an impressive historical "long phase" in the larger story of the advance of the West. But a new age had commenced, lasting to the present, whereby surface sea power, when under way upon the high seas, would always be vulnerable to an attack out of the deep.

In those same few years, from roughly 1930 to 1940, the engine power, speed, carrying capacity, and range of the modern bomber aircraft greatly increased in size. This became a mixed bonus to navies. The striking power and reach of the newer Japanese, American, and British carriers rose greatly, but so did the danger from their foes' carrier fleets, and the nascent threat from land-based aircraft (from Stuka dive-bombers to the later high-level B-17s) was a completely new factor. While the Anglo-French surface fleets stood in great numerical superiority over those of their foes at the end of the 1930s, what did that mean if hostile air power could threaten their security, and thus their operating maritime effectiveness, up to one hundred or more miles off a theater of war? What did it mean in the Pacific and Southeast Asia if a newer, Japanese, carrier-based air power threatened the Allied hold over the Philippines, Hong Kong, and Singapore? What did it mean, closer to home, when Italian land-based air power threatened to drive its foes' fleets out of the central Mediterranean?

When war broke out again in 1939, therefore, the Royal Navy may have been still the leading navy by count of the numbers, and to this could be added the considerable French fleets, plus the preponderance in naval bases possessed by the Anglo-French powers. Yet number counting alone clearly was not a true measure of the strategical balances. In September 1939, as Churchill resumed his position as First Lord, the British Admiralty proudly announced, "Winston Is Back!," suggesting that things were [again] much the same as in 1914. They were not, on at least two significant counts. While Italy and Japan remained initially neutral, they were obviously potential foes and had to be regarded as such, giving the Royal Navy a much more serious fleet distributional problem than it had had in 1914. And, secondly, there was now the question of how much air power's potential would be of

greater advantage to Britain's foes than to the number one maritime nation itself. Finally, looming in the background, although a concern of only a few thoughtful observers of geopolitics, there was the even larger question of how Western European maritime power would fare in a new era structured by the emergence of giant nations—real superpowers.

1939–45

The Second World War was so immense that it is better understood as five great (and interrelated) conflicts rather than as a single struggle for supremacy. From 1937 until 1945, a gigantic land war raged throughout much of China, as the Imperial Japanese Army committed over one million men to crush the Nationalists, who were in turn trying to crush the Communists. From 1941 onward, an even greater land struggle took place along the entire western front of the USSR in a fight to the death between the Wehrmacht and the Red Army (with approximately three million German and five million Soviet men in the initial fighting alone). Across the vast distances of the Pacific Ocean, with outlier campaigns that ranged westward to the Indian border, a third great struggle, mainly maritime-amphibious, was waged between Japan's forces and those of the American-Australian-British commands and forces. Eight thousand miles away, and starting over two years earlier, another geographically widespread war was fought between Britain and its allies and the German-Italian coalition; its scope was small in 1939–40, though it soon ranged from Archangel to Abyssinia, and from Newfoundland to Egypt, and all the waters in between. And from 1942 onward, a great Anglo-American double strategic bombing campaign was unleashed against the Third Reich from hundreds of British (and later Sicilian-Italian) air bases, as another, and independent, form of winning the war.

All five grand campaigns were interconnected, to a greater or lesser extent, with the Chinese-Japanese War having the fewest links to the other fighting. All five campaigns have each attracted a vast historiography, with the majority of the writings focusing solely on their own zones of battle, often laying claim to its significance for the final victory, sometimes even querying the size or the importance of another campaign.[32] This is not necessary in any proper assessment of the influence of sea power upon the Second World War, for the significance of the great battles of the Pacific, Atlantic, and Mediterranean are incontestable; and it is clear that the Anglo-American leadership saw those theaters as interlinked, as they shifted warships, air squadrons, and landing craft from one to the other as they judged necessary. And there are other linkages: neither the giant Anglo-American strategic bombing campaign nor the Normandy landings were possible without the Allied naval escorts getting the invaluable convoys safely across the North Atlantic; the bombing of German railways and submarine pens hurt U-boat production and crippled overall Wehrmacht communications; and seaborne/landborne supplies

from the Western Allies gave far greater help to the Red Army than is usually acknowledged, while the same strategic bombing also significantly diverted large resources of German manpower and material to home defense that could have been used on the Eastern Front.[33] As the war went on, certain Luftflotte Fliegerkorps were juggled by Goering's staff between the Mediterranean, Eastern, and French/Atlantic fronts, just as many British warships went from Mediterranean operations to Arctic convoy duties to Atlantic campaigning. Few if any leaders and their advisers viewed the war with complete balance, and holistically, although the meetings of the Anglo-American Combined Chiefs of Staff did their best in this regard.

Viewing sea power within this larger, grand-strategical framework best lets historians see where and how it worked, as well as where it played little or no role. In the hard-fought campaigning of 1939 to 1942 in the Western theaters of war—where Britain fought to maintain itself as the major military power—sea power's importance was undoubted, and was virtually everywhere. The Battle of the Atlantic, where hostilities began on the first day, was, after all, the longest campaign of the war, and convoys were already under attack and Royal Navy warships being sunk even during the so-called Phony War period. The diplomacy of the late 1930s had set up the battlefield: Hitler's attack upon Poland drew France and Britain into the fighting, which then escalated greatly with the explosive German assaults upon the Low Countries, Denmark, and Norway. Those losses to the Western alliance would have been great enough, but in May–June 1940 the largest strategical change since Napoleonic times occurred when France itself was toppled.

In less than two months, therefore, Britain had forfeited all its usual geographical advantages, save that incomparable one of being an island-state, protected by its moat. Its control of the two exits from the North Sea was no more. Back in the late 1920s, an obscure strategic writer named Rear Adm. Wolfgang Wegener had argued that in a future war the only way that Germany could escape the geographical "trap" that it had occupied in 1914–18 would be to have naval bases in Norway or in western France; now it had both.[34] This huge transformation of the balances made the fighting at sea ever more important and fierce. The Royal Navy lost many ships itself as it mauled its German foe badly in the Norwegian campaign. As it pulled the British and French armies out of Dunkirk, it encountered more losses from Luftwaffe attacks. German bombers hammered away at British shipbuilding yards. German submarines, from their new advanced bases, punished the convoys severely.

Italy's entry into the war, just after the fall of France, made an awful strategic situation for Britain now close to catastrophic.[35] The loss of the French ally and the entry of the Italian fleet involved a "swing" of literally hundreds of warships, and even when the French fleet was brutally neutralized the plain fact was that Britain no longer had control of the Mediterranean. For the next two and a half

years that sea became the most contested naval theater in all of history, and warships and merchantmen littered the seabeds from off Crete to the approaches to Malta. In these years, without a doubt, the Royal Navy had its own "finest hour." In these years, as Churchill and his cabinet realized, keeping command of the sea was elemental, vital, urgent . . . and so very precarious. The reader of the narrative of a Malta convoy—say, the epic Operation PEDESTAL convoy battle of August 11–13, 1942—comes away awed at the intensity of the fighting by the British, Italian, and German units thrown into the struggle.[36]

The Battle of the Atlantic was even larger, more widespread, and more costly; in 1940, the Allies lost 3.9 million tons of merchant shipping, chiefly to surface attacks and U-boats but some also to German aircraft and to mines; in 1941 that total jumped to 4.3 million tons, including seven merchant ships in the foray by the cruiser *Hipper;* and in 1942 the total was a terrifying 7.8 million tons.[37] Then the fourth year of the campaign started badly for the convoys. It was shortly after March 1943, when no fewer than four convoys had been torn into by U-boat wolf pack attacks and some 627,000 further tons lost, that the official Admiralty record read, "The Germans never came so near to disrupting communications between the New World and the Old as in the first twenty days of March, 1943."[38] Here, clearly, was Corbett's claim that sea power equaled command of the maritime routes most clearly evidenced. Here also was made clear the stark fact: unless control of the sea routes to Britain was maintained, there would be little or no strategic bombing (the fuel for the air squadrons could only come by tanker) and no Allied landings in France (for the equipment for two million U.S. soldiers could not cross the Atlantic unless it was protected).

It is true that certain other Atlantic convoys were being successfully routed to avoid the U-boats altogether and thus successfully make it to the Clyde and Liverpool. And it is also true that the enormous American shipbuilding effort was by this stage producing millions of tons of additional merchant shipping (11.5 million tons in 1943).[39] Yet it is not at all certain that, had the U-boat packs not been driven out of the North Atlantic by the extraordinary Allied counteroffensives of April to June 1943, those additional stocks of shipping would have made much of a difference; if undefeated at sea, Dönitz's increasingly larger wolf packs surely would have sunk more and more ships, and the dreadful losses of merchant-ship crews clearly was not sustainable. So the amazingly swift change of fortune that followed, with the German Navy losing forty-one U-boats in May 1943 alone, actually meant that a strategic watershed had been crossed. With the Allied control of the Atlantic convoy routes never again in such dire danger, the first of the Casablanca military directives had been achieved. Naval specialists will energetically debate which of the newer weapons of war made the greatest contributions to this sharp defeat of the U-boats (the list would include the coming of long-range patrol aircraft, the arrival

of the escort carriers, the astounding miniature radar [cavity magnetron] sets, plus hi-fi signals detection, improved depth charges, homing torpedoes, hunter-killer groups, and ULTRA signals-intelligence decrypts).[40] But the chief point is that the greatest struggle ever for command of the sea had been fought, with the defending navies triumphing after a long, bloody contest.

With that vital maritime campaign won, the Anglo-American alliance could move to the next stages of the Casablanca military agenda and commence the amphibian counteroffensive against the Third Reich's vulnerable, overextended, southernmost holdings. Geography again favored the Allies, for it was a lot easier to move invasion armies from the Clyde and Virginia to the shores of Morocco and Algeria than it was for the German High Command to send divisions from the Balkans to North Africa—especially at a time when the Wehrmacht was involved in the grinding maw that was Stalingrad. The Anglo-American forces were also lucky in that their large-scale landings were on undefended beaches—there was opposition neither to the large-scale Sicily landings in July 1943 nor to crossing the Straits of Messina into Italy proper the next month. Still, the Admiralty took no chances to ensure that these invasions went undisturbed; for example, not only did it provide enormous naval and aerial close support for the actions to take the Algerian ports, but it sent a heavily augmented Force H from Gibraltar into the Central Mediterranean to deter any sorties by the Italian or Vichy French navies—altogether four fleet carriers, five smaller carriers, and six battleships were involved.[41]

All this experience proved immensely useful in the following year, when the Allies at last launched the largest amphibious operation of all time, against the Normandy beaches. All the Mediterranean commanders had been brought home (Eisenhower, Ramsay, Montgomery, Patton, and so on), as were the most experienced army divisions, and of course the navies and the amphibious units. In a very real degree, the Allied invasion of June 1944 was the apotheosis of Western sea power—the Admiralty insisted upon calling this "Operation NEPTUNE"—but the historian has also to note how integrated the naval side was with the forces of air power and land power. Five armies marched ashore on June 6, while no less than 11,400 (!) aircraft were aloft that day over western France and the Channel. German torpedo boats and U-boats were ordered to interrupt the invasion, but they all understood this was a suicide mission and called it so.[42] In other words, the entire littoral of Western Europe was under Allied aerial dominance. (One can again notice the difference with the situation around 1917, when Jellicoe's fleets kept carefully to the other side of the North Sea.) The D-day operation was indeed stupendous, and yet in the very same month of June 1944 the Red Army launched its most enormous land advance against the Third Reich yet, Operation BAGRATION, involving 1,700,000 troops.

By contrast, the battle of the Pacific was a war concerning sea power through and through. Japan's first six months of expansion, using its fleets, air forces, and a relatively small military force to seize an astonishing amount of territory, ranging from the Philippines to the Burma-India border, was spearheaded by an extremely well-equipped and well-trained carrier force accompanied by supporting cruiser and destroyer flotillas and expeditionary armies. The Royal Navy especially was ill prepared for this and suffered defeat after defeat, with the loss of *Prince of Wales* and *Repulse,* the stunning surrender of Singapore, and the further losses in the Indian Ocean. America's losses, of the Philippines and the battle fleet at Pearl Harbor, were even greater; but the critically strategic position of Hawaii was not taken, nor was the U.S. carrier fleet at all damaged, and both were to be of immense value when the counteroffensive came.

Tokyo's aim was to establish a secure perimeter ring around its recently acquired possessions and then, nourished by the oil fields of Sumatra and Borneo that had been the real object of its southern drive, to resume its massive landward campaigns into mainland China. America's aim was to recover all the territories lost, to smash the Japanese forces in the Pacific, and to inflict an overwhelming defeat upon the Japanese nation itself. There would be no great landmass over which this war would be fought, but instead vast distances at sea, with the advantage going to the side that readjusted best to the novel logistical and operational requirements. And there would also be no great Battle of the Atlantic fight over convoys. The reinforcement route from America's West Coast to Australia was not contested, and in any case the Japanese submarine force did not focus upon a war against merchantmen but acted in support of its own battle fleets. And the American submarine attacks upon Japanese merchant shipping, while murderously effective after the torpedo defects had been remedied, came late in the day, in 1944 and 1945.

By that stage, the main contours of the war in the Pacific had become evident, with sea power playing the central role, albeit in a new hybrid form that merged it with air power and amphibian power. This was most clearly manifested in the massive forces that were assembled under Admiral Nimitz's Central Pacific Command and in the operations they carried out in an irreversible drive across the Pacific, island group by island group: from Hawaii to the Gilbert Islands, then the Marshalls, Carolines, and Marianas, then on to Iwo Jima and Okinawa and the approaches to Japan. Although every one of these operations had their own separate features, there was a common operational pattern: the arrival of a large number of carrier task forces to gain control of the air and punish any Japanese warships and bases (including major ones, like Rabaul) in the region; the offshore pounding by heavy cruisers and battleships—in their new, non-Mahanian role—of the island's land defenses; and then the amphibious assault itself.[43] The land fighting was always ferocious, but the garrisons were isolated, and no American assault was thrown back.

The last great Japanese counterattack was in their multipart operation at Leyte Gulf (October 1944), finally involving their Main Fleet. In retrospect, one can see that even this operation, with its various subplots to trap some of the American squadrons, would not have stayed the offensive tide for long; the U.S. economy, eight or possibly ten times greater than that of Japan, had now geared up to full production.

Around the middle of 1943, that great shift in the global power balances that had been building up, tectonically, since the 1890s and more obviously after the huge American defense spending near the end of the First World War showed itself in full display. In June 1943, the first of the new, fast, *Essex*-class fleet carriers, the USS *Essex* itself, slipped into Pearl Harbor. By August it was joined by another, the new USS *Yorktown,* and afterward by USS *Intrepid*—and twenty-one more. A new class of light fleet carriers was also streaming into the Pacific, accompanied by fast new destroyers and heavy and light cruisers. The mighty sixteen-inch-gun *Iowa*-class battleships were not far behind. A galvanized American shipbuilding industry was also completing fast oilers to accompany the future long-range operations of the carrier groups, and hundreds and hundreds of landing craft for future amphibian landings on the scattered Japanese-held islands. And, from Seattle (Boeing) to Long Island (Grumman), the U.S. aircraft industry poured out 85,898 aircraft in 1943 alone, and a staggering 96,318 in 1944.[44] Nothing compared.

All this now dated those older disputes between sea power and land power advocates, as Leo Amery had so presciently guessed it would when he made his amazingly insightful commentary upon Mackinder's "Geographical Pivot of History" paper of April 1904.[45] The chief thing to understand now was neither the display of great warship fleets occupying the high seas nor the successful control of the routes of trade, nor even the fight to defeat the giant Nazi land empire—all of them vital, epic, remarkable in their different ways—but the coming of continent-wide superpowers of "vast munitioning potential" that brought the winning of wars to a new level of force projection. In this narrative, one can certainly see how sea power influenced the outcome of the Second World War, not as the determinant but as the many-sided instrument of Allied force projection, in specific theaters, to a specific degree.

CONCLUDING THOUGHTS

Sea power had played an enormously important part in the outcome of the French Revolutionary and Napoleonic Wars. One hundred years later, however, during the second "Great War," of 1914–18, it seemed both to participants and historians to play a far less significant role in influencing the result of that conflict. Yet twenty-five years after that, in the epic global struggle of the Second World War, sea power once again claimed an indisputable "influence." This curious and remarkable discrepancy has never really been explained by naval historians. Nor is the reader helped very much in understanding the difference by drawing from the writings of

any one of the three great theorists of modern geopolitical thought concerning sea power and land power, Mahan, Corbett, and Mackinder, because each argued and composed, understandably, within the limits of his time and his perspective. Each had magnificent insight, yet saw but a part of the struggle for world power. Still, what they saw, and what they argued, helps us greatly to understand the puzzle.

The best way of helping us comprehend the puzzle is to think about contested space, that is, the struggle by every large and small power to defend its own spheres of influence and to invade and grasp the enemy's. In the French Revolutionary and Napoleonic Wars the emperor not only sought to dominate his immediate continental land space but to move into Britain's—in the Mediterranean, the Caribbean, Egypt, the Near East, and also in the Atlantic—through the assembling and deployment of large, threatening, Franco-Spanish fleets. So, from the beginning of the conflict until 1805, the struggle was indeed determined by vast, overpowering force upon the sea, that is, by large consolidated battle fleets that could drive the enemy's forces away and gain control of the central commons. Great fleet fights, prefigured by those in the Anglo-Dutch Wars, the War of the Spanish Succession, and the Seven Years' War, occupied the center of the stage. From this Mahan drew his theory about what constituted the essence of sea power: the superior battle fleet.

Yet strategic space was also being fought over in two other ways during the struggle against Napoleon, and particularly after 1805. Here of course naval warfare was far less glamorous—Trafalgar had been won, but Nelson was dead—yet other battles for strategic "space" were being fought. There were the really interesting fights in the eastern seas, the struggle for the Baltic, the frigate encounters in the Mediterranean, and the French privateer wars against British commerce on the seas. The latter, being so much more of concern to Corbett, was just a part of the economic warfare waged during these years between Britain and Napoleonic France that encompassed mutual blockades, the Continental System, the use of credit, and the British subsidies to the land armies of its European allies.[46] Just because an epic, single-day naval battle had not taken place did not mean that sea power after 1806 was not being exerted—and felt.

Finally, fearing a Napoleonic domination of western and central Europe, the British leadership felt it had no choice but to contest the emperor's own continental space, seeking to defeat him in many ways, from encouraging and funding coalitions of friendly land powers to pull him down from power, to the actual deployments of the British Army, in the Peninsula, in southern France, and eventually in Belgium. From Helsinki to Flanders and Dover, down to Lisbon and Gibraltar and on via Naples to the Bosporus, Britain sought to put a wrap around the emperor's efforts to break out, holding on to the rimland *(sic)* until there was sufficient coalition force to win at the heartland. This was a long and frequently unsuccessful grand strategy which only saw its successful realization in the battles of Borodino

(1812), Leipzig (1813), and Waterloo (1815)—many leagues from Mahan's far-off fleets, even if sea power had decidedly affected the outcome of this long struggle. During the mid-eighteenth century, it is sometimes argued, Britain had been torn between a "maritime" and a "continental" strategy; in bringing Napoleon down, there was no question but that both were needed.[47]

One hundred years later, ideas about the importance of sea power never stood higher in the public realm. All the great powers before 1914 (including land-based ones such as Russia) strove to have as large a navy as possible, naval "races" occurred between so many of these nations, and Mahan's theories about the role of the battle fleet in deciding victory were dominant. What followed in 1914–18, as described in the section above, was therefore all the more disappointing, and yet this is understandable if one thinks again about contested "space." During the war, sea power was seen by contemporaries to play a lesser role because the German-led Central Powers had no real opportunity to enter the British Empire's maritime space, at least not in the form of surface warfare in the Atlantic and beyond. Grand Mahanian battle fleets were there, all right, but they were confined by circumstance to remain chiefly in their North Sea harbors. In the Baltic, North Sea, and Adriatic waters there were some small, desultory surface actions, but really after 1916 the struggle for mastery at sea became much more a battle for the Atlantic sea-lanes—Corbett's vital maritime routes.

Since extra-European spheres could not be invaded by Berlin except by this challenge by the U-boat after 1916, and there already existed a gigantic struggle between the Austro-German and Franco-Russian empires for control of the land space of Europe, what took place, to the dismay of the navalists, was the dispatch of huge British Empire and later American armies to swing the land balances on the western and Italian fronts; the maritime nations were invading continental space, not the reverse. Significant military operations also took place in Palestine, Mesopotamia, and the Caucasus during 1915–19, but those were contested only by Germany's lesser ally, Turkey, and thus the chief battlefronts remained in Europe, in France, Italy, and Poland-Ukraine. In none of those areas did sea power play a direct role. When the year 1918 saw each side committing all their respective military resources for the hoped-for victory, the Grand Fleet, to Jellicoe's frustration, swung at anchor in Scapa Flow. Allied naval power had fairly easily preserved Britain's own physical security, and then maintained command of the Atlantic sea-lanes, but those were negative achievements, and ones out of sight, which is why the role of navies was much less celebrated that it had been in the triumphant years following 1815.

Even so, the swift collapse of the League of Nations system, the rise of the three revisionist nations of Germany, Italy, and Japan, and the reoccurrence of another furious worldwide naval arms race in the late 1930s meant that sea power's role was

not doubted when the Second World War broke out. The British Admiralty had no other choice but to rely upon a Mahanian battle posture: off Norway, in sinking the *Bismarck* and the *Scharnhorst,* in protecting the Mediterranean convoys, and in shepherding the North African and Sicilian landings. At the same time, it had no other choice but to commit to a massive, unrelenting Corbettian strategy of securing the Atlantic sea-lanes. In the European-Atlantic naval battles, therefore, each theorist had his vindication.

Further east, the navalists' case could be much more easily made. The Pacific War had been from beginning to end about winning or losing maritime mastery. And if one substituted carrier groups for battleship squadrons, it turned out to be much more of a Mahanian struggle for command of the central oceans than a Corbettian fight over convoy routes and sea-lanes. It didn't really matter, though. The point was that, in this war, naval power had proved to be vital for the Allied victory.

In sum, to every navalist author's delight, the Pacific War had joined with the prolonged Atlantic and Mediterranean campaigns in being fought for command of the sea. And even if Stalinist propaganda was to attempt to ignore the fact, the war of the eastern front was also affected, in some part, by seaborne supplies to the USSR and the choking off of such supplies to Germany. Why not then agree that navies, and naval power, had once again counted for such a lot in world affairs? That seemed so obvious, when a vast Allied fleet rested in Tokyo Bay, while hundreds of German U-boats were being scuttled or surrendered to their victorious naval opponents. The end of the First World War was signed in a railway carriage at Compiègne; but now, the end of the Second World War was signed on the afterdeck of the battleship USS *Missouri.* What place of signature, on each occasion, could be more symbolic? As was the case in 1815, but had not been the case in 1918, Neptune in 1945 could again hold his trident high.

But to what end? Even then, as those victorious Allied navies rested in that bay, sea power's role had not really been settled, or, rather, it was about to be unsettled. Over the post-1945 age there hung the immediate shadow, and the conundrum, of the coming of atomic weaponry. The claims of all armed services, navies included, were now thrown into question. This was an odd fate, and an odd ending to a naval historical narrative that otherwise seemed so teleological; but the fact was that the story of sea power's place in the three great global wars of these 150 years simply did end with such a paradox. The Anglo-American navies that had fought so well, so impressively, so successfully, came out of this war with their futures more uncertain than ever before in history.

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1 There are, however, important observations in two much earlier classic works: Bernard Brodie, *Sea Power in the Machine Age* (Princeton, NJ: Princeton Univ. Press, 1941), and Herbert W. Richmond, *Sea Power in the Modern World* (London: G. Bell and Sons, 1934).

2 Kendall D. Moll, *The Influence of History upon Seapower 1865–1914* (Menlo Park, CA: Stanford Research Institute, 1968).

3 Geoffrey J. Marcus, *A Naval History of England,* vol. 2, *The Age of Nelson* (London: Longmans, 1971); Tim Voelcker, *Admiral Saumarez versus Napoleon: The Baltic, 1807–1812* (Woodbridge, U.K.: Boydell, 2008); C. Northcote Parkinson, *War in the Eastern Seas 1793–1815* (London: George Allen and Unwin, 1954); N. A. M. Rodger, *The Command of the Ocean: A Naval History of Britain, 1649–1815* (London: W. W. Norton, 2004).

4 Julian S. Corbett, *Some Principles of Maritime Strategy* (London: Antony Rowe, 1911); Halford J. Mackinder, "The Geographical Pivot of History," *Geographical Journal* 23, no. 4 (April 1904), pp. 421–37.

5 Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston: Little, Brown, 1890; repr. London: Methuen, 1965), p. 88.

6 Alfred Thayer Mahan, *The Influence of Sea Power upon the French Revolution and Empire* (Boston: Little, Brown, 1894), vol. 2, p. 380.

7 It is rather like saying that the influence of land power upon the fate of the Kingdom of Poland was incontrovertible.

8 J. H. Plumb, *The Growth of Political Stability in England 1675–1725* (London: Macmillan, 1967); Paul Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Random House, 1987), p. 149; Jürgen Osterhammel, *The Transformation of the World: A Global History of the Nineteenth Century* (Princeton, NJ: Princeton Univ. Press, 2014), p. 452.

9 Rodger, *Command of the Ocean,* p. 574.

10 Osterhammel, *The Transformation of the World,* pp. 452–55; Paul M. Kennedy, *The Rise and Fall of British Naval Mastery* (London: Palgrave Macmillan, 1976), pp. 149–76.

11 Bernard Semmel, *Liberalism and Naval Strategy: Ideology, Interest and Sea Power during the Pax Britannica* (Boston: Unwin Hyman, 1986); Eric Hobsbawm, *Industry and Empire: An Economic History of Britain since 1750* (London: Weidenfeld and Nicholson, 1968), p. 110.

12 Kennedy, *The Rise and Fall of the Great Powers,* chap. 4.

13 Osterhammel, *Transformation of the World,* esp. chaps. 7 and 9.

14 Beginning with the sensationalist article William T. Stead, "The Truth about the Navy," *Pall Mall Gazette,* September 15, 1884. Scaremongering journalism in Britain never looked back after this.

15 The Admiralty's worries about all this are covered in great detail in Arthur J. Marder, *The Anatomy of British Sea Power: A History of British Naval Policy in the Pre-dreadnought Era, 1880–1905* (New York: Frank Cass, 1940), chaps. 7, 10, 13, and 17.

16 Among the most prominent are Jon T. Sumida, *In Defence of Naval Supremacy: Finance, Technology and British Naval Policy, 1889–1914* (Winchester, MA: Unwin Hyman, 1989), and Nicholas A. Lambert, *Sir John Fisher's Naval Revolution* (Columbia: Univ. of South Carolina Press, 1999).

17 See especially Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era 1904–1919,* vol. 1, *The Road to War 1904–1914*

(Oxford, U.K.: Oxford Univ. Press, 1961), and Paul Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914* (London: Unwin Hyman, 1980).

18 Paul M. Kennedy, "The Development of German Naval Operations Plans against England, 1896–1914," *English Historical Review* 89, no. 350 (January 1974), pp. 48–76.

19 Alfred von Tirpitz, *My Memoirs* (London: Hurst and Blackett, 1920). There is more evidence of Tirpitz's strong disapproval of how the German leadership acted in 1914 in his private papers in the Military Archive in Freiburg. Cf. Christopher Clark, *The Sleepwalkers: How Europe Went to War in 1914* (New York: HarperCollins, 2012).

20 It is worth noting that the massive media coverage of the First World War just recently, at the centenary of 1914, contained hardly any reference to the war at sea; and that the comprehensive three-volume *Cambridge History of the First World War,* ed. Jay Winter (Cambridge, U.K.: Cambridge Univ. Press, 2014), contains only one chapter out of seventy-three on the war at sea.

21 Julian S. Corbett, *The History of the Great War: Naval Operations,* vol. 1, *To the Battle of the Falklands December 1914* (London: Longmans, 1921), p. 182.

22 Nicholas A. Lambert, *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge, MA: Harvard Univ. Press, 2012). Lambert shows in great detail the difficulties the British had in implementing strict economic warfare against Germany in light of all of the American protests against the interruption of trade. Even if the blockade were to have been much tighter, it is not clear (see p. 501) what difference that would have made upon Germany's overall economic capacities during the war.

23 Except later, through the rather audacious operations of Britain's own submarine forces in Baltic waters.

24 Jeter A. Isley and Philip A. Crowl, *The U.S. Marines and Amphibious War: Its Theory, and Its Practice in the Pacific* (Princeton, NJ: Princeton Univ. Press, 1951), pp. 581–84.

25 It is nice to name an exception: Andrew Gordon, *The Rules of the Game: Jutland and British Naval Command* (London: John Murray, 1996).

26 See Paul G. Halpern, *A Naval History of World War I* (Annapolis, MD: Naval Institute Press, 1994) for the best single-volume coverage of the naval conflict.

27 A. J. P. Taylor, *The Struggle for Mastery in Europe 1848–1918* (Oxford, U.K.: Oxford Univ. Press, 1954), pp. xxv–xxxi.

28 James Goldrick, *The King's Ships Were at Sea: The War in the North Sea, August 1914–February 1915* (Annapolis, MD: Naval Institute Press, 1984). A fine narrative and analysis of the opening period of the war.

29 On this, see Paul Kennedy and William I. Hitchcock, eds., *From War to Peace: Altered Strategic Landscapes in the Twentieth Century* (Binghamton, NY: Vail-Ballou, 2000), chaps. in pt. 1, "Reordering Europe after World War I."

30 Joseph A. Maiolo, "Did the Royal Navy Decline between the Two World Wars?," *RUSI Journal* 159, no. 4 (July 2014), pp. 18–24.

31 The map is reproduced in Paul Kennedy, *Engineers of Victory: The Problem Solvers Who Turned the Tide in the Second World War* (New York: Random House, 2013), pp. 8–9.

32 Phillips Payson O'Brien, *How the War Was Won: Air-Sea Power and Allied Victory in World War II* (Cambridge, U.K.: Cambridge Univ. Press, 2015), pp. 1–13.

33 An invaluable book is Jürgen Rohwer, *The Critical Convoy Battles of March 1943* (Annapolis, MD: Naval Institute Press, 1977), which does the invaluable task of recording what the contents were of each merchant ship sunk, such as fifty boxed crates of fighter aircraft, a thousand sheets of corrugated iron, two thousand tons of grain, etc.

34 Wolfgang Wegener, *Die Seestrategie des Weltkrieges* (Berlin: E. S. Mittler & Sohn, 1929).

35 Germany invaded France and the Low Countries from the north on May 10, 1940. Italy entered the war on June 10, 1940, and invaded southern France. On June 24, 1940, France surrendered to Germany, at which point Italy was occupying a swath of French territory in the southeast. It continued to occupy this zone even after the establishment of the Vichy regime in the rest of southern France.—Ed.

36 Stephen W. Roskill [Capt., RN], *The War at Sea, 1939–1945,* vol. 2, *The Period of Balance,* History of the Second World War (London: Her Majesty's Stationery Office, 1956), pp. 302–308.

37 Eric Grove, "The West and the War at Sea," in *The Oxford Illustrated History of World War II,* ed. Richard Overy (Oxford, U.K.: Oxford Univ. Press, 2015), pp. 135–67.

38 Roskill, *The Period of Balance,* p. 367.

39 Grove, "The West and the War at Sea," p. 151.

40 See Kennedy, *Engineers of Victory,* pp. 50–64.

41 Stephen W. Roskill [Capt., RN], *The War at Sea, 1939–1945,* vol. 3, pt. 1, *The Offensive: 1st June 1943–31st May 1944* (London: Her Majesty's Stationery Office, 1960), pp. 118–25.

42 See Kennedy, *Engineers of Victory,* pp. 250–79.

43 These operations are covered in Samuel Eliot Morison, *History of United States Naval Operations in World War II* (Boston: Little, Brown, 1947–62), vols. 7, 8, and 14.

44 Kennedy, *Rise and Fall of the Great Powers,* p. 354.

45 Amery's comments are discussed in Paul Kennedy, "Mahan versus Mackinder: Two Interpretations of British Sea Power," in *Strategy and Diplomacy 1870–1945: Eight Studies* (London: George Allen and Unwin, 1983).

46 François Crouzet, "Wars, Blockade and Economic Change in Europe, 1792–1815," *Journal of Economic History* 24, no. 4 (December 1964), pp. 567–88.

47 Richard Pares, "American versus Continental Warfare, 1739–63," *English Historical Review* 51, no. 203 (July 1936), pp. 429–65.

The President, U.S. Naval War College, takes great pleasure in awarding

The Hattendorf Prize for Distinguished Original Research in Maritime History

to Dr. Werner Rahn, Captain, German Navy (retired).

The U.S. Naval War College is pleased to recognize your achievements by naming you Hattendorf Prize laureate. This award is fully merited by your distinguished scholarly contributions to maritime history. You shaped the world's understanding of German navies and traced their influence on professional military education and on the roles of navies and of sea power. Your definitive historical studies reveal the social dynamics of naval cultures in the broadest sense. Drawing from original documentary sources, you employed the critical interdisciplinary approach to discover completely fresh perspectives in naval history, most prominently in the naval sections of the multivolume work *Germany in the Second World War,* published in English by Oxford University Press. In so doing, you advanced the discipline in the spirit of the great German historian Leopold von Ranke. In particular, we honor you for your work as senior editor, with Dr. Gerhard Schreiber, of the annotated, facsimile edition of the *War Diary of the German Naval Staff, 1939–1945* that appeared over nine years, between 1988 and 1997, in sixty-eight bound volumes. Your impeccable scholarship on this huge documentary source made your edition the single most important authoritative source for the strategic and operational decisions of the German Navy during the Second World War. Your innovative approach to naval history inspired other scholars to understand the past by first using documentary sources to establish "how it actually was." In the tradition of our own Alfred Thayer Mahan and the U.S. Naval War College, your operational histories and strategic studies of the German Navy, in particular, informed contemporary practitioners' understanding of the role of underlying politics and organizational group dynamics on naval affairs in both peace and war during the entire scope of German naval history from 1848 to the present. In addition to your published work in several languages, your fellow historians are most grateful for your long service to maritime history within the German armed forces, first as an instructor at the Naval Academy Mürwik; then at the German General Staff College at Hamburg; and finally at the German Armed Forces Military History Research Office from 1988, where you rose from head of the naval section to deputy director of that office, before serving as its general director in 1995–1997, after which you retired from active service. Your long and impressive naval service combined with your continuing body of scholarship represents a singular contribution to the future of history. This award honors you and your incomparable work as a naval professional and as a scholarly historian, expressing appreciation for your distinguished contributions in framing our collective understanding of the influence of sea power upon international history.

Presented this twenty-second day of September in the year two thousand sixteen at the U.S. Naval War College, Newport, Rhode Island.

Jeffrey A. Harley
President, U.S. Naval War College
Rear Admiral, U.S. Navy

III

German Navies from 1848 to 2016

Their Development and Courses from Confrontation to Cooperation

WERNER RAHN

Military history deals with the evolution and structure of armed forces and their position in state and society. In this sense, *naval history* is taken to mean that part of military history that concentrates its studies on the navy. However, when dealing with fields of research, one sphere provides the greatest challenge for military and naval historians: warfare in the widest sense.[1]

In his book *The Face of Battle,* British historian John Keegan points out that many historians are shy about exploring the profundities and realities of war.[2] Generally speaking, we can expect naval or other military historians to have a certain affinity for the subject of their research. They should have a basic knowledge about the military, in the same way that we expect an economic historian to have a sound basic knowledge of economic theory. But Keegan is justified in demanding that the military historian spend as much time as possible among military personnel, "because the quite chance observation of trivial incidents may illuminate his . . . understanding of all sorts of problems from the past which will otherwise almost certainly remain obscured."[3] Like any historian, the naval historian bears a great responsibility in his striving after historical truth, if he wants to be taken seriously. The uncritical patriotic history that used to glorify naval actions should be a thing of the past.

Today, some historians tend to judge personalities, events, and structures according to today's moral categories. They end up "putting the past on trial, and since the critical historian, armed with his generation's self-confidence or with his progressive concept of the future, knows everything better, in this trial he will be prosecutor, judge, and legislator all in one."[4]

In 1957, the German navy began to develop a new approach to studying its own history. That year, the first fleet commander in chief, Rear Adm. Rolf Johannesson (1900–89), organized the Historical-Tactical Conference. Since then it has been held every year, and is now a standard element of the naval officer's historical education. Johannesson's aim was to distance his service from subjective naval history about World War I.[5] He hoped that a critical discussion of the past would teach his officers truth, loyalty, and moral courage, and that they would

determine their own position more solidly by recourse to history and the federal constitution. Through 2016, fifty-six conferences have been held, covering a wide variety of subjects.[6] Papers usually are presented by junior officers from the fleet, assisted by naval historians. The presentation of the papers and the candid discussion of subjects relevant to the business of the day usually provide testimony to the intellectual talents among the navy's officer corps. Many an admiral-to-be made a mark when as a lieutenant he presented some critical theory about history—provoking the older generation's opposition.

It is a perennial challenge to historians even to come close to historical truth. The commercial success of popular publications, as well as the large number of visitors attracted to museums, indicates how many people have historical interests. Such continuing interest is a stimulating challenge for professional historians. We should continue to try to present our findings about background information and structures from the past in such a way that the message gets across—meaning that historical knowledge and historical sensitivity become factors serving to help stabilize a liberal society.

THE BIRTH OF A GERMAN NAVY

The first German *navy* worthy to bear such designation was established in 1848, when a conflict over the duchy of Schleswig resulted in a war with Denmark.[7] At that time, Germany could do nothing against the Danes' efficient blockade; ocean trade came to a standstill. This dilemma resulted in a rather emotional movement that advocated building up a fleet. The issue soon captivated the members of the national assembly that had convened at Frankfurt's Saint Paul's Cathedral only a short time before. On June 14, 1848, by an overwhelming majority, the first German parliament voted a large appropriation to build a fleet.[8]

Prince Adalbert of Prussia (1811–73), who had concerned himself with maritime problems rather early, played an important part in those first maritime plans. In May 1848, he published a memorandum on the buildup of a German fleet that became, so to speak, the Magna Carta of the German navy. By analyzing the maritime-strategic situation of Prussia and Germany and having taken into consideration already the imminent technical revolution, it formed the first theoretical basis for a German naval concept. The memorandum included three models on which Germany might establish a navy: (1) providing mere coastal defense; (2) defending sea lines of communication (SLOCs); or (3) building up an independent sea power. Prince Adalbert, however, clearly emphasized that even steps leading toward the buildup of an independent sea power would involve many risks, and that once this option had been chosen there could be no stopping halfway.[9]

During the preparations for the buildup of a fleet, it soon became clear that almost all requirements—in personnel, matériel, and organization—could not be met. It was, therefore, only natural to ask for foreign assistance. Arnold Duckwitz

(1802–81), the first German secretary of the navy, in October 1848 forwarded an official request to the American government for assistance in building up, with regard to personnel and matériel, a German fleet. In the United States, the German liberal revolution had been observed with interest and with an open mind. Thus, the German requests met with a positive response within both private and official circles. First contacts were established by the frigate USS *St. Lawrence,* commanded by Capt. Hiram Paulding (1797–1878), which was visiting Bremerhaven in the fall of 1848. The ship and crew were received enthusiastically as envoys of a hoped-for ally. The U.S. Navy immediately began personnel-support activities by rendering assistance with training: the frigate took aboard four Prussian sea cadets for practical exposure. Captain Paulding, as an adviser, was for weeks the center of attention during all discussions on the fleet buildup, which were held in Berlin, Frankfurt, and Hannover. The matériel support concentrated on providing a modern frigate, which was equipped at the New York Naval Yard and transferred to Europe in the summer of 1849.[10]

Even though the duration and the scope of this first American military aid to Germany were limited, that assistance provided early evidence of an American policy of being ready and able to support, across the Atlantic, the principles of democracy and liberalism. On both sides of that ocean, common goals and mutual sympathy for the liberal-democratic forces resulted in the first steps toward cooperation. How close these idealistic ties actually were became evident after the Frankfurt National Assembly failed, when high emigration rates resulted from disappointed democrats finding their spiritual home in the United States. One example was Carl Schurz (1829–1906), who later became Secretary of the Interior. Such a "brain drain" strengthened the hand of conservative forces in Germany—the consequences of which are well known.

The German navy remained in existence even after the dream of a united *Reich* had long gone and the reality of particularism governed German politics. However, in 1853 the fleet was disbanded and its few ships were sold or scrapped.[11] Only Prussia, with its relatively longer coastline, still had available a limited number of naval forces, proudly named the Royal Prussian Navy.

Yet the idea of the navy as an instrument of national unification stayed alive even after 1848. After the foundation of the Reich in 1871, the navy's function as a symbol of German unity was stressed officially, in contrast to the army's organization by individual states. The very term *Imperial Navy* emphasized that this instrument of power was subject directly to the Reich. The personnel of the Imperial German Navy (IGN) came from all parts of Germany, and the fleet became, as Tirpitz (see below) once put it, a "melting pot of teutonicism."[12]

However, until 1897 the navy's development was overshadowed by that of the army. The navy's contributions to the wars against Denmark in 1864, Austria in 1866, and France in 1870–71 seemingly were of no importance. Strategically, the IGN concentrated on providing a forward coastal defense.[13]

STRATEGIC ROOTS OF BUILDING A GERMAN BATTLE FLEET

In 1894, spurred by the theories of Alfred Thayer Mahan (1840–1914), the German naval high command prepared a strategic concept for the buildup of a battle fleet.[14] Capt. Alfred von Tirpitz (1849–1930), then chief of staff of the naval high command, seems to have taken the initiative to formulate the famous Dienstschrift (Service Memorandum) No. IX, under the misleading title "General Lessons Learned from the Fleet Autumn Exercise."[15]

In this memorandum, Tirpitz resolutely pleads that strategic offensive actions should be considered "normal tasks of a fleet."[16] Such actions should aim at bringing about "the earliest possible initiation of a battle," a battle that would reach the "main decision" of naval warfare. That decision could not be reached by a cruiser war, such as was prescribed under the tenets of the French Jeune École school of thought, but "only by permanent naval supremacy and lasting pressure on the enemy."[17]

Owing to Germany's position in the heart of Central Europe, its long coasts on the North and Baltic Seas, and its borders with eight neighboring nations, any strategy of the Reich that did not rely on strong alliance partners required it to decide whether a threat should be neutralized defensively or eliminated offensively. As long as Germany considered only France as a potential enemy (and later Russia as well), the offensive strategic concept for naval operations that Tirpitz laid down in Service Memorandum No. IX seemed appropriate.

In June 1897, Tirpitz was appointed state secretary in the Reichsmarineamt (Imperial Naval Office).[18] Not least because of his influence, the politics of the Reich gradually expanded to consider the risks involved in confronting Britain. For Tirpitz, England was, from the beginning, "the most dangerous naval enemy," against which Germany "most urgently required a certain measure of naval force as a political power factor." Since Tirpitz considered cruiser warfare a lost cause, owing to Germany's lack of naval bases, he asked for the buildup of a fleet that "can unfold its greatest military potential between Heligoland and the Thames."[19]

Elsewhere within the IGN there were well-founded doubts regarding this conceptualization. Capt. Curt Freiherr von Maltzahn (1849–1930), who at that time taught tactics and naval history at the German naval academy, warned as early as 1898 that reaching "Seeherrschaft" (sea control) by means of a battle would not suffice by itself to impose peace on the opponent, for such sea control would have to be maintained and exploited. This would require a surplus of strength. As long as neither party achieved sea control, the weaker party would be confined to fighting

against the achievement of sea control by its enemy, forgoing victory as the goal of its own combat actions. It would be important to maintain a national seaborne trade "corresponding in strength to the means deployed for defense."[20] Maltzahn considered a combination of squadron operations and cruiser war to be the most suitable naval strategy. "Squadron operations are indispensable in this type of warfare, but they are only a means and not an end, and they become only really valuable if the freedom of action thus gained is exploited."[21]

However, such a foresighted and realistic alternative, one that combined a balanced defensive fleet with strong cruiser elements, stood no chance in the IGN. Tirpitz repressed any further strategic discussions so as not to jeopardize the buildup of the fleet, which had received legislative backing and thereafter was scheduled to be accomplished over an extended period.[22]

CHALLENGE AND RESPONSE: THE NAVAL ARMAMENT RACE

The objectives and planning principles of the German battle fleet construction can be summarized as follows: The basic prerequisite for gaining sea control was the destruction, or at least the decisive weakening, of the enemy battle fleet. Thus, planning focused on the fleet's capability to impose a decision in battle. The battle fleet also was considered a political means of power that could enable Germany to defend its overseas interests adequately. Britain, the most dangerous potential opponent, was to be deterred from a war with Germany by means of a strong fleet, or, should deterrence fail, was to be engaged successfully.

Among the liberal bourgeoisie, the naval policy met with strong support, which was increased even further by propaganda skillfully directed. However, while drawing up its ambitious armament program, Germany misjudged the dangers arising from its geographical situation in Central Europe. Any German approach that strove to establish an international maritime stature and adopt a counterpoint stance toward Britain was bound to be met with profound suspicion from Britain. After the German-British alliance talks in 1901 failed to produce any tangible results—the two sides were pursuing incompatible objectives—the buildup of the German battle fleet became and remained a crucial disruptive factor, preventing any subsequent arrangement with Britain and resulting in an arms race.

From 1905 onward, that escalatory dynamic was characterized by an enormous increase in the combat power of battleships. With the construction of HMS *Dreadnought* in 1905–1906, the Royal Navy set a new standard. Tirpitz had to keep pace if the IGN was to remain equal, ship for ship, with its potential enemy. As a result, his long-term financial planning had been in vain, for the construction of capital ships involved ever-increasing costs.

Britain could cope with the cost increases involved in the construction of capital ships, or at least it had to do so since its security was exclusively dependent on the superiority of the Royal Navy. In contrast, the defense of Germany was primarily

an army responsibility, with the navy playing a secondary role. Britain's first lord of the Admiralty Winston Churchill (1874–1965) explained this in a public speech in February 1912. The strategic situations of both countries, Churchill pointed out, made his own fleet a vital necessity to the British Empire, whereas "from some points of view, the German Navy is to them more in the nature of a luxury."[23]

Groaning under the burden of high naval expenditures, in 1912 both governments tried again to come to an agreement that they hoped would reduce the building rates of capital ships. In February 1912, the British cabinet sent Secretary of State for War Richard B. Haldane, 1st Viscount Haldane (1856–1928), to Berlin to try to reach a general settlement in these matters. However, Lord Haldane's talks with the German side never converted into real negotiations, and the effort failed after a few days. The British were unwilling "to commit themselves to neutrality," and the German side—under pressure from Tirpitz—was unwilling to modify the country's planned building rate.[24] Tirpitz appreciated that for England "the Entente with France gives her the best security against a too powerful Germany," he said. "I no longer believe that we can get out of this vicious circle."[25] As Germany did not have enough resources to fulfill all the requirements of both the army and the navy, the IGN could not keep up in the unconstrained arms race that commenced thereafter, even though by 1914 it had become the world's second-strongest navy.

Before 1914, modern warships, such as capital ships, cruisers, and torpedo boats, were not only part of a nation's military potential but striking evidence of its industrial and technological capability. Only highly industrialized nations could solve on their own the complex technological problems that the transition to modern capital ships involved. This was particularly true for the new technologies of engines and weapons, as well as for the improvement in ship survivability achieved through the use of high-quality steel armor.[26]

The period between 1905 and 1914 was characterized by a technological revolution that made naval weapons obsolete rapidly. This applied to cruisers, torpedo boats, and submarines as well as larger units. During the first major naval battles of World War I, the decisive effects of superior speed and more-powerful guns became apparent.

STRATEGY AND GEOGRAPHY

Tirpitz based his strategic concept on the assumption that the Royal Navy always would act offensively in a war against Germany; in particular, it would establish a close blockade of the German coast. Such a blockade near Heligoland "would provide abundant opportunities to equalize naval strength" or to "enter into a decisive battle."[27] For the IGN, this hypothetical battle became an element of dogma—the focal point of its operational concept and fleet training. For this reason, knowledge of and experience with weapons technology, tactics, and shiphandling were more-decisive factors in the careers of naval officers than qualification

in staff assignments—which had a long-term effect on the choice of personnel for command-and-control appointments. The work of the Admiralstab (naval staff), established in 1899, and the creation of a specialized corps of staff officers to man it, seemed secondary in importance. As a consequence, the naval officer corps remained unprepared for the complex strategic dimensions of a naval war against Britain.[28]

Although all the preparations focused on the "decisive battle," a great deal of confusion existed regarding the true purpose of the battle.[29] While those staffing the German naval command had adopted Mahan's theory of sea power willingly, they paid only lip service to a central element of that theory: the importance of geographical position and the resultant strategic options. By throttling Germany's seaborne trade, an opponent could decide a "war by severing an artery essential to the existence of Germany."[30]

An incorrect assessment of the effects of geography on British naval operations led the German naval leadership to a faulty assessment of British strategy. Britain had never attempted to eliminate an opponent's navy at any price; it did so only when the British Isles and their SLOCs in the Atlantic were threatened. And these SLOCs remained outside the range of the German naval forces, except for a few cruisers and, later, submarines. To maintain a close blockade of the German coast, the Royal Navy would have found it useful to eliminate the German fleet at an early date, but the Admiralty was well aware that such a strategic offensive would involve considerable losses. Especially cognizant of the threat that German torpedo boats, submarines, and mines represented, after 1911–12 the Royal Navy no longer considered deploying its Grand Fleet to the southern North Sea.[31] In November 1912, the Admiralty issued a set of "General Instructions" to its war plans against Germany, summarizing Britain's strategic approach as follows:

> The general idea is to use our geographical advantage of position to cut off all German shipping from oceanic trade and to secure the British coasts from any serious military enterprise and incidentally but effectually to cover the transport across the Channel of an Expeditionary Force to France. . . . It is believed that the prolongation of a distant blockade will inflict injury upon German interests. . . . To relieve such a situation, Germany would be tempted to send into the North Sea a force sufficient . . . to offer a general action. Such an action or actions would take place far from the German coast and close to our own.[32]

This plan implied a new wartime deployment for the Grand Fleet: basing it at Scapa Flow, in the Scottish Orkneys.

When in 1912 the German naval staff discovered the new orientation of its potential enemy, the chief of naval staff, Vice Adm. August von Heeringen (1855–1927), examined in a war game whether and how Germany's High Seas Fleet could counter a distant blockade. The result was sobering. The Blue (i.e., German) wargaming party had advanced its squadrons as far as the Firth of Forth, but there they encountered difficulties and suffered considerable losses while withdrawing.

The admiral concluded: "If the British really restrict their activities to the remote blockade and consistently hold back their battle fleet, then the role of our beautiful High Seas Fleet could be a very sad one in wartime. The submarines will have to do the job."[33]

It must be left open what type of submarine employment Heeringen had in mind, but his estimate hit the central strategic problem for German naval warfare during World War I. Over the course of the nineteenth and early twentieth centuries, the role of the submarine as a naval weapon "had grown from base to coast defence and from this to an offensive task in enemy waters."[34] Basically, the submarine was a mobile torpedo boat with long endurance. Submerged, a submarine made only slow progress—but it had the ability to vanish below the surface of the sea for several hours.

In comparison with other naval powers, the IGN came late to building submarines. The first one, *U-1* (282 tons), was commissioned in December 1906. Obviously, Tirpitz had waited until he was sure that submarines were an effective offensive weapon. After 1908, he ordered more than forty oceangoing submarines, of which twenty-eight had been completed before war broke out.[35]

WORLD WAR I

When Britain joined the war on the side of France and Russia in August 1914, it became clear that the German High Seas Fleet could not perform its political function of deterrence. Britain, relying on its superior fleet and the strategic positions the country and its empire held worldwide to protect its vital SLOCs, considered the German fleet, which could operate only from the North Sea, to be an acceptable risk.[36]

In August 1914, the IGN lay under the spell of great enemy superiority. The naval command placed all its hopes on reducing enemy forces through offensive submarine and minelaying operations. The assumption was that the opponent would seek battle, but Germany's fleet was to be employed in such a battle only "under favorable conditions."[37]

Although the few German cruisers stationed overseas at the outbreak of war were quite successful in *guerre de course* (warfare against merchant vessels), the Royal Navy soon neutralized them. Germany's East Asiatic Squadron, under Vice Adm. Maximilian von Spee (1861–1914) moved across the Pacific Ocean and destroyed a British squadron off Chile, but its advance to the Falkland Islands in the South Atlantic on December 8, 1914, proved fatal.[38] The example demonstrates that the IGN neither recognized nor made use of the strategic advantages it might have derived from coordinating the operations of its naval forces overseas with those at home.

However, one small but powerful German squadron did influence the balance of forces and the overall course of World War I: the Mediterranean Division,

comprising the battle cruiser *Goeben* and the light cruiser *Breslau*, under Rear Adm. Wilhelm A. Souchon (1864–1946). The breakthrough of the two units to Constantinople and their formal handover to Turkey in August 1914 influenced Turkey to join the war on the side of the Central powers in October 1914. The Turkish straits (the Dardanelles and the Bosporus) became impassable for the Allies; all their attempts to penetrate them failed, with heavy losses.[39] Thus, the second important route to Russia, other than the Baltic Sea, remained blocked, contributing to Russia's loss as an ally of the Entente in 1917. After the war, Sir Julian S. Corbett commented as follows on this German strategic success:

> When we consider that the Dardanelles was mined, that no permission to enter it had been ratified, and that everything depended on the German powers of cajolery at Constantinople, when we also recall the world wide results that ensued, it is not too much to say that few naval decisions more bold and well-judged were ever taken. So completely, indeed, did the risky venture turn a desperate situation into one of high moral and material advantage, that for the credit of German statesmanship it goes far to balance the cardinal blunder of attacking France through Belgium.[40]

The various operations the High Seas Fleet conducted in the North and Baltic Seas, which culminated in the battle of Jutland in May 1916, cannot conceal the fact that primarily it performed the functions of a "fleet in being": securing the German coast, blocking the Baltic approaches, and keeping clear the submarines' sailing routes.[41]

In the first few months of the war, the submarine gave a striking demonstration of its power. On September 22, 1914, *U-9* (Lt. Otto Weddigen [1880–1915], commanding) sank three aged armored cruisers in an hour. At first, the Royal Navy could not believe the cruisers "had been attacked by a single submarine and attributed the disaster to a whole flotilla."[42] Over the next couple of weeks, the U-boats extended their patrols; by October 1914, *U-20* had penetrated the Channel to attack transports on their way to France, circumnavigated the British Isles, and returned to Germany, having cruised 2,200 miles in eighteen days.[43]

Commerce Raiding by U-boats, 1915–18

The varied arguments concerning the degree of success German submarines achieved in their raiding against Britain's maritime commerce are a classic example of the civil-military struggle of a nation at war. At the time, this struggle was influenced greatly by public opinion, for submarine warfare became a popular myth to which a large number of Germans subscribed; they believed the U-boat was some sort of infallible, magic weapon that would bring victory. Because of some successful surprise raids, not only the public but the naval command overestimated the efficiency of submarines.

Initial considerations within the IGN regarding the employment of submarines against British shipping had not yielded a clear picture by the time Tirpitz spoke publicly on the issue—which he did without consulting Chancellor Theobald

von Bethmann-Hollweg (1856–1921) or chief of naval staff Adm. Hugo von Pohl (1855–1916). In response to the British threat to "strangulate the [German] economy with the help of a blockade," as Churchill had put it in a speech on November 9, Tirpitz responded in an interview that Germany could "play the same game"—by torpedoing all British shipping.[44]

This triggered a passionate public debate that had repercussions for the naval command. The young historian Gerhard Ritter (1888–1967) knew from his own experience during the war that

> [i]t was Tirpitz's interview that poured more oil on the fire when it was published in late December. Thenceforth the question of submarine warfare was no longer a naval problem for the experts to judge, but a political issue of the first order, with everyone having his say. A "U-boat movement" quickly came into being. . . . Again the academic superpatriots were in the forefront with plans and petitions to the Chancellor and the navy on how to starve Britain into submission. Some of the most renowned names at the University of Berlin were among them.[45]

The naval staff encouraged support for commerce warfare from the government; however, the method's prospects for success could not be assessed, because so few submarines were available. Of the twenty-two submarines in the North Sea in early 1915, only fourteen (those with diesel engines) could operate west of the British Isles. The chancellor came under both public and naval pressure while making his decision, and he relied too much on the navy staff's optimistic forecast. Early in February 1915, Bethmann-Hollweg gave his consent to submarine warfare—without either the government or the naval command having analyzed thoroughly the methodology of commerce raiding itself or the associated political risks and international complications.

The German proclamation of February 4, 1915, declared "the waters around Great Britain and Ireland, including the whole of the English Channel, to be a war zone in which every merchant ship encountered would be destroyed, without it always being possible to assure the safety of passengers and crew. Because of the British misuse of neutral flags, it might not always be possible to prevent attacks meant for hostile ships from falling on neutrals."[46] By conducting commerce warfare in this way, Germany opened new issues in international law, because submarines could not adhere adequately to the classic prize rules. This was particularly so after the British began arming merchant vessels, and later created disguised British auxiliary cruisers (Q-ships), which were a great threat to U-boats.

Despite these challenges, the commanding officers of German submarines, displaying a combination of caution and skill, achieved remarkable results with their deck guns while managing to comply with the prize regulations. Owing to a lack of space, submarines could not embark survivors, but in many cases they towed lifeboats to nearby coasts. However, the German naval staff criticized this practice: "The deterring effect of the submarine war will be lost if it is felt that passing the

blockade zone is no longer a serious risk to the lives of the crews."[47] Without providing its submarine commanding officers with clear instructions, the naval command obviously assumed that most ships would be sunk by torpedoes without warning, further deterring neutral shipping.

When the U.S. government raised concerns about the way the war was being waged and referred to the international principles of naval warfare, the chief of the general staff, Gen. Erich von Falkenhayn (1861–1922), feared the United States might enter the war. He wanted a guarantee that submarine warfare would force England "to give in" within six weeks. When the kaiser inquired about the matter, Tirpitz and the new chief of naval staff, Vice Adm. Gustav Bachmann (1860–1943), confirmed this amazing forecast—without explaining what they meant by England's "giving in." On February 12, Bachmann wrote to Admiral Pohl, then commander in chief of the High Seas Fleet: "It is in the military interest to make submarine warfare as effective as possible. Do not shy away from sinking enemy passenger liners. Their loss will cause the greatest impact."[48]

The first serious instances of confrontation with the United States arose from German naval activities. On May 7, 1915, the submarine *U-20* sank the British passenger liner *Lusitania* (31,550 gross registered tons [GRT]), using only one torpedo. This attack was conducted without warning and claimed the lives of 1,198 civilians, including 126 Americans; however, it was established later that *Lusitania* had been carrying some war matériel in its forecastle.

This incident caused a severe diplomatic rift with the United States. President Woodrow Wilson (1856–1924) called on Germany to adhere to the accepted principles of naval warfare and to respect the safety of American citizens traveling in the war zone. Following a similar incident in August 1915, the German government yielded. In September, over the objection of the naval command, commerce raiding was ordered stopped west of the British Isles; only in the North and Mediterranean Seas was commerce raiding continued, and then in accordance with the prize regulations.

By early 1916, the number of operational U-boats had risen to fifty-one. Intensified submarine warfare, as demanded by the chief of general staff, resumed in February 1916. It aimed at sinking armed British merchant vessels, without warning, while sparing passenger liners. But the French Channel steamer *Sussex* was torpedoed on March 24, 1916, and another severe crisis between Germany and the United States ensued. On April 18, 1916, Washington threatened to sever diplomatic relations.[49]

Chancellor Bethmann-Hollweg now saw his earlier pessimistic assessment of the situation confirmed. From the onset of the new stage of submarine warfare, he had doubted the need for such a hazardous venture, "which would claim as a stake our existence as a great power and the future of our nation in its entirety, while the

chance of winning, that is, the prospect of bringing England down by fall, is a rather uncertain one."[50]

So the chancellor provided assurance to Washington that merchant vessels "would not be sunk without warning or without saving people's lives."[51] As a result, the frontline commanders of the IGN (i.e., of the High Seas Fleet and the German marine corps in Flanders), acting on their own initiative—later backed up by the naval command—moved their submarines out of the western operating areas because they felt that operating under prize regulations exposed their vessels to great danger. Commerce raiding under the prize regulations was continued only in the Mediterranean. In the North Sea, the submarines operated against military targets until September 1916, without achieving any significant results.

This extreme reaction—transferring submarines out of the operating areas entirely—was inconsistent with the actual situation. Of the thirty-five submarines that had been lost by June 1916, only four had been destroyed by Q-ships, and none had been destroyed by armed merchant vessels.

Submarines' promising capabilities for commerce raiding, even under the prize regulations, became more discernible in summer 1916.[52] The resumption of submarine warfare under the prize regulations provoked no political risks while achieving considerable results: the monthly average of sinkings between October 1916 and January 1917 was 189 merchant vessels, of 324,742 GRT. This was not enough to force a decision in the war against Britain, but the war economy of the Allies was damaged heavily enough to produce a chance for a negotiated peace. Still, the naval command, in a rigid and dogmatic manner, repeatedly demanded "unrestricted submarine warfare." The IGN was convinced that this would result in decisive victory, even presuming the expected break with the United States.

The naval staff decided to test the U.S. government by sending a submarine to the U.S. East Coast. On October 7, 1916, thirty-one-year-old Lt. Hans Rose (1885–1969), endowed with powers equivalent to those of an ancient Roman proconsul (his wording), headed his submarine, *U-53,* for Newport, Rhode Island, as a demonstration of the efficiency of German submarines—and as a warning to the U.S. Navy. After a three-hour visit to the Naval War College, Rose departed Newport—and sank five enemy merchant ships off the American coast, under prize rules. Sixteen U.S. destroyers observed this action at close range.[53]

The atmosphere and attitude among German naval officers at that time were portrayed in a diary entry by Lt. Ernst von Weizsäcker (1882–1951) of September 27, 1916. "The naval officers are sitting around, drinking, talking politics, hatching plots, and into the bargain feel patriotic, trying, in a dishonest way, to force submarine warfare. Submarine warfare is designed to conceal the foolish things done in developing the fleet and employing the fleet in war. This inadmissible propaganda evidences their bad consciences."[54]

However, the propaganda Weizsäcker mentioned was effective. This was especially significant since the new general headquarters of all army forces, under Field Marshal Paul von Hindenburg (1847–1934) and Gen. Erich Ludendorff (1865–1937), realized that the attrition campaign had failed and that, as things stood, victory in France was becoming less and less likely.

Unlike the military, Chancellor Bethmann-Hollweg intended to avoid U.S. entry into the war on the Allied side. He hoped that President Wilson would arrange a negotiated peace. However, when the British government in December 1916 harshly rejected a German peace offer, German leaders changed their opinion. Now the military leaders, especially Hindenburg and Ludendorff, categorically demanded "unrestricted submarine warfare," claiming it was the last means of gaining victory. At a conference on January 9, 1917, after heated discussion, the chancellor supported their demand, and the German high command recommenced unrestricted submarine warfare on February 1, 1917.[55] A few weeks later, at a meeting of the Main Parliament Committee, Adm. Eduard von Capelle (1855–1931), Tirpitz's successor, "went so far as to insist that the effect of American entry into war would be 'zero'! American troops would not even be able to cross the ocean for lack of transport."[56]

In response to unrestricted warfare, the United States broke relations with Germany, announcing "armed neutrality." However, the Entente wanted the United States to enter the war, so the alliance could take utmost advantage of a fully mobilized American war economy. Thanks to maladroit German diplomacy, this goal soon was accomplished.

Seeking to keep the Americans militarily engaged on their continent and in the Pacific Ocean, Germany proposed an alliance with Japan and Mexico. The proposal was sent by cable to Mexico in the so-called Zimmermann telegram on January 16, 1917. With the aid of captured German codebooks, British naval intelligence managed to decrypt all the German diplomatic cables transmitted among Berlin, Washington, and Mexico City. To expedite the U.S. decision-making process, the British government transmitted the pertinent cables to Washington, and President Wilson had them released to the press on February 28.[57]

Germany's offer to Mexico of an alliance inflamed American public opinion against Germany. Early in April, the United States entered the war on the side of the Allies. Thus, unrestricted submarine warfare alone did not trigger the American declaration of war, but Germany's naval stance contributed to it in a substantial way.

On February 1, 1917, Germany had 105 operational submarines available to conduct unrestricted submarine warfare. By June 1917, their number had been increased to only 129. Because of the increase in operations between February and July 1917, repair periods gradually were prolonged, leading to a decrease in the number of operationally ready submarines.[58]

On the other hand, in April 1917 alone, 458 Allied ships totaling 840,000 GRT were sunk. This led to a severe crisis for the Allies, who momentarily doubted their ability to continue the war. However, Germany did not achieve its strategic objective—effective disruption of British shipping. The Allies introduced convoying in the summer of 1917, and thereafter far fewer ships were sunk. Between February and June 1917, an average of 363 ships of 629,863 GRT were sunk per month, whereas during the last quarter of 1917 sinkings averaged 159 per month, totaling 365,489 GRT. In 1918, the numbers of ships sunk decreased even further. Because

German Submarine Losses 1914–18

Cause	1914	1915	1916	1917	1918	Total
Ramming						
• By warships	2	1	—	8	3	14
• By merchant vessels			—	2	2	4
Artillery						
• By warships	—	2	3	—	3	8
• By merchant vessels	—	—	—	—	1	1
• By Q-ships	—	3	2	6	—	11
Searching gear with petard	—	1	1	—	1	3
Explosion of ammunition aboard a merchant vessel	—	—	—	1	—	1
Attack by aircraft	—	—	—	1	—	1
Depth charges	—	—	2	7	21	30
Torpedoing	—	4	1	7	6	18
Mines	2	2	6	21	23	54
Accidents						
• By German mines	—	2	1	6	1	10
• By German torpedoes	—	1	—	—	1	2
• By beaching	—	1	2	2	—	5
• During diving	—	—	—	1	—	1
• Collision with German submarine	—	—	—	1	—	1
Unknown	1	2	4	—	7	14
Total	**5**	**19**	**22**	**63**	**69**	**178**

Note: Excludes accidents in home waters.

Sources: Robert M. Grant, *U-boats Destroyed: The Effect of Anti-submarine Warfare 1914–1918* (London: Putnam, 1964); Robert M. Grant, *U-boat Intelligence* (London: Putnam, 1969). Cf. Joachim Schröder, *Die U-Boote des Kaisers: Die Geschichte des deutschen U-Boot-Krieges gegen Großbritannien im Ersten Weltkrieg* (Bonn: Bernard & Graefe, 2003), and Rahn, "Die Kaiserliche Marine und der Erste Weltkrieg," p. 72.

of this, the German naval staff was not able to keep the promise it had made: by the autumn of 1918, about 1.4 million American soldiers had made it to France. U.S. entry into the war proved to be the decisive factor in the defeat of Germany.[59]

After the Allies introduced the convoy system, German submarines faced serious operational and tactical problems. The concentration of merchant ships in a convoy had to be countered with a concentration of submarines. Even before that, reconnaissance was required—the convoys had to be detected. The few boats available west of the British Isles could not cover the entire operating area, allowing many convoys to reach Britain undetected. When a submarine sighted a convoy, it could conduct a submerged attack, with torpedoes. The gun armament, which until the institution of convoying had achieved most results, fell into disuse.

Along with introducing the convoy system, the Allies enhanced antisubmarine defense by developing more efficient depth charges and the first underwater locating devices. But above all, it was the intensive mining of the shipping lanes in the North Sea and the English Channel that caused most U-boat casualties. Of the 132 German submarines lost in 1917–18, at least fifty sank after hitting mines.[60]

At the end of September 1918, the army's supreme command admitted military defeat and demanded an immediate armistice. The United States made termination of unrestricted submarine warfare a precondition for reestablishing diplomatic contact. Yet the German naval command—to justify its existence—prepared to send the fleet out for one final battle. The ships' companies discerned that the naval command was acting arbitrarily and refused to obey. Within a few days, this mutiny developed into a revolt that led to the collapse and end of the IGN, which accelerated a general uprising in Germany.[61]

The Lessons of the Great War

In spite of outstanding achievements and successes against a superior opponent in various war theaters, the outcome of German naval operations was negative at the end of World War I. Not only did the IGN's strategic concepts for fleet employment and for commerce warfare using submarines fail, but those failures were the starting point for a revolt that triggered the political overthrow of the government. Nevertheless, the High Seas Fleet effectively operated as a fleet in being. Its presence pinned down the British Grand Fleet in the North Sea, including lighter naval forces, which consequently were not available for convoy-escort duty in the Atlantic. The fleet protected the German coast, blocked the Baltic against Allied resupply shipments to Russia, and, to a certain extent, backed up submarine warfare by keeping the departure and return routes clear. Contrary to the current view of historians who entirely deny the fleet's strategic importance, the fleet was an asset for the German war effort; but a realistic cost-benefit analysis shows that, in the end, the fleet did not achieve what it was expected to.

One of the fundamental lessons learned during World War I was that, over the long run, an effective blockade could so weaken the German war potential and economy, which were greatly dependent on the importation of raw materials, that not even defensive operations could be conducted. The German naval command had not realized that sea power, i.e., the ability to control and successfully use the sea, essentially is the product of both fleet strength and geographical position. If either factor were deficient, the entire result suffered. This was one of the essential reasons the High Seas Fleet did not bring about a decision in the overall conduct of the war. It failed to develop a concept in which the two components of naval warfare—surface forces and submarines—were integrated to enable timely and effective deployment against the two key strategic weak points in the enemy alliance: Allied merchant shipping in the Atlantic and the Russian coastline in the Baltic.

During the submarine war against Allied merchant shipping, the naval command rigidly relied on a one-sided and, in the end, inadequate naval concept that ignored the possibility and reality of U.S. entry into the war, thereby contributing to Germany's defeat. During the operations against Russia, Germany hardly ever exploited its naval superiority. However, Germany's blocking of access to the Baltic, in parallel with its ally's control of the Turkish straits, diminished Russia's war potential considerably. This success in the economic war, which Germany had not foreseen, relieved the country of the necessity to prosecute the war on two fronts by the spring of 1918; but that was too late to bring about success for the overall war effort.

The result Germany experienced in World War I was due not only to insufficient concepts and means but to the naval command's strategic incompetence. The leadership seemed to be incapable of recognizing the natural limits that existed—limits that would have to be imposed on any German naval strategy within the overall strategic concept.

THE INTERWAR PERIOD, 1919–39

The Treaty of Versailles reduced Germany to the status of a third-rate naval power.[62] Submarines and military aircraft were forbidden to it altogether. As a result, the navy lacked the weapons that modern naval warfare required. However, French opposition thwarted the British attempt to abolish the submarine entirely; Paris became the champion of minor naval powers by emphasizing the importance of the submarine as a naval weapon for weaker nations.[63] During the preparation of the peace treaty, Adm. William S. Benson (1855–1932), the American Chief of Naval Operations (CNO), advocated only moderate cuts in the strength of the future German navy so as to maintain a counterbalance to the British fleet in the North Sea.[64] The British never considered taking over the German ships for their own fleet—too costly; they simply wanted to sink them. However, France and Italy dismissed this idea. The problem was solved when the Germans themselves sank the major

part of their fleet at Scapa Flow on June 21, 1919.[65] The German naval command regarded this accomplishment primarily as a moral success. The consequences of the scuttling were severe: the Allies demanded full compensation, and claimed 80 percent of all German port equipment; and the navy had to surrender its last five modern light cruisers.

German naval forces came to seem superfluous, given the total military defeat of 1918, the domestic unrest of 1919, and the ongoing border conflicts with Poland. However, for the navy to continue in existence and preserve its independence from the army, the service required a plausible long-run mission. When, during the peace negotiations in the spring of 1919, the German government offered to renounce its force of six old battleships so as to achieve concessions in other areas, the victorious powers refused, pointing out that Germany should retain some limited naval forces for its own protection. They projected a small German fleet as a stabilizing factor in the Baltic area. Thus, Germany's former enemies contributed considerably to the continued existence—modest as it was—of the German navy.[66]

The naval command argued that a navy was necessary because of the territorial changes in eastern Europe, referring primarily to the alterations to Poland's borders and the resultant isolation of East Prussia. In 1919–21, a Polish-Russian border dispute led to war, and future border conflicts could not be ruled out.[67] If Germany had no naval forces at all, it would be impossible to defend East Prussia; the Poles would be able to cut the sea route across the Baltic—the only reliable line of supply for the German enclave.

The navy's deliberations, unlike those of the army, soon expanded to consider other possible conflicts. As early as 1922 they took into account Poland's ties with France. Once again, German naval strategy focused its attention on the North Sea. Given the German economy's great dependence on seaborne supplies, the prerequisites for conducting defensive operations could be achieved only if German shipping in the North and Baltic Seas continued unhindered.

The navy considered itself to be an instrument of territorial defense against France and Poland, while hoping, in better times to come, for an end to armament restrictions. When it became apparent that the limitations on their own arms that the victorious powers had announced at Versailles were not going to materialize, the German government consistently aspired to equal rights and national sovereignty in the military sphere, such that it could develop the country's armed forces into an effective instrument of national defense.

In terms of matériel, a new start gradually was made, by constructing some torpedo boats and light cruisers. However, the challenge of developing a ten-thousand-ton armored vessel (permitted by the peace treaty) that had sufficient combat power to survive an engagement with French capital ships was a tough nut to crack. Given the displacement limitation, it was not possible to meet normal

requirements for armament and armor plating. When the changes in the armament limitations for which the naval command had hoped failed to materialize, the navy was forced to concentrate on designing a ship that was more like a cruiser than a battleship.

The decisive elements that influenced this change in planning lay on two levels, the tactical-operational and the political-military. In the tactical-operational sphere, exercises showed that heavy naval forces needed more speed. In the political-military sphere, the naval command thought it imperative that every German ship constructed be superior in at least one respect to the warship categories defined in the Washington Naval Agreement (encompassing multiple treaties) of 1922. For battleships, it sought speed; for cruisers, heavy guns. To replace the old battleships while remaining under the terms of the peace treaty, the naval command planned a ship carrying six twenty-eight-centimeter (cm) guns and capable of twenty-eight knots.

To understand the German line of reasoning, it is necessary to look at the status of international naval armaments at the end of the 1920s. The countries that had signed the Washington Naval Treaty (Britain, France, Italy, Japan, and the United States) had navies dominated by capital ships having eight to twelve heavy guns (with calibers between 30.5 and 40.6 cm) and speeds of twenty to twenty-three knots. Only Britain and Japan had battle cruisers equipped with six to eight heavy guns. These had a top speed between twenty-seven and thirty-one knots. Until 1930, the Washington Naval Treaty limited the total tonnage and construction of battleships and aircraft carriers. For cruisers, the treaty established ceilings only for the displacement and armament of individual vessels. Thus, cruisers with a standard displacement of ten thousand tons and light armor were built. Their main armament comprised six to ten 20.3 cm guns; they had a top speed of thirty-three knots. Although they could evade the slower capital ships, they had to avoid contact with battle cruisers, which were capable of similar speed yet far superior in armament.

Since the core of the French fleet consisted of nine slow capital ships and five fast heavy cruisers, the German naval command deliberately endowed its ten-thousand-ton vessel with the characteristics of a "small battle-cruiser": it was superior to cruisers in armament and to capital ships in speed. With six 28 cm guns in two triple turrets and a speed of twenty-six to twenty-eight knots, the *Panzerschiff* (armored ship, also known as a "pocket battleship") came very close to the concept of the battle cruiser. Moreover, diesel engines would give the ship a maximum range of twenty thousand miles, vastly exceeding that of any cruiser or capital ship. Owing to its combat effectiveness and endurance, the pocket battleship was suitable for both warfare in the North Sea and offensive operations in the Atlantic.

The construction of the ship immediately attracted the attention of foreign naval experts. In April 1929, the British ambassador in Berlin, Sir Horace Rumbold (1869–1941), reported to his government as follows:

> From a naval technical point of view, the building of this vessel is to be welcomed, as its design promises to include a number of new features in warship construction. The principal of these are reported to be a comparatively heavy armament of six 11-inch guns, eight 5.8-inch and twenty antiaircraft guns, six torpedo tubes, adequate armour protection, special Diesel engines giving a cruising speed of 26 knots, the extensive employment of light metals and electric welding in place of riveting, and the highest degree of unsinkability.[68]

However, Germany's naval command regarded the construction of pocket battleships not just as a military necessity but as a political-military lever with which to upset the entire system of international naval armament controls that had been established—without German participation—at Washington in 1922. The naval command hoped this step would give Germany the chance to be readmitted to the community of major naval powers.[69] Of course, if Germany had been included in the Washington Naval Agreement, this would have been tantamount to a wholesale abrogation of the naval arms limitations laid down in the Treaty of Versailles.

Change of Strategy and Operational Planning

The naval command was cognizant that Germany was highly dependent on seaborne imports. It tried to impress this overall strategic reality on the army so the latter would take that factor into account when drawing up its operational plans. From 1928 onward, the new minister of the Reichswehr (German Imperial Defense), Lt. Gen. Wilhelm Groener (Ret.) (1867–1939), set new standards for all operational planning by the army and navy. He stressed that the idea of a large-scale war had to be ruled out from the start. Military operations against foreign powers should be limited to two possible types of conflict: (1) repelling raids from neighboring states onto German territory; (2) maintaining armed neutrality during a conflict between foreign powers.

Groener demanded that the Reichswehr be combat ready to oppose immediately any sudden Polish invasion. For the navy, this new concept meant it had to be able, on seventy-two hours' notice, to begin operations to destroy the Polish navy and neutralize the port of Gdynia as a naval base.[70] Such a demonstrative strike clearly was intended to be part of a strategy of deterrence. Under this concept of calculated escalation, the German government could react quickly to a possible invasion, then refer the conflict to the League of Nations without delay. Thus, the government gave the navy, for the first time, a role as an effective instrument of crisis management.

In the spring of 1929, Groener requested that the naval command review whether Germany, to conduct its maritime defense, would need any surface units that went beyond the ceiling of the peace treaty. By so inquiring, Groener got at the heart of the self-perception of the navy's leadership, which saw its service not

merely as an instrument of national defense but, in the long run, as an indispensable prerequisite for a future German maritime position of power. Under no circumstances would a return to brown-water-navy status be acceptable; the German navy instead intended to build oceangoing units, in accordance with the traditional concept of naval prestige, and thereby to express hope for a better future. Naturally, it was not possible, nor was it intended, to explain this to a minister who, although he had pushed the Panzerschiff through the Reichstag (national legislature), otherwise had expressed often his critical attitude toward the buildup of the German High Seas Fleet before 1914.

In his reply to Groener's question, "Does Germany need large warships?," the chief of naval command, Adm. Erich Raeder (1876–1960), championed the earlier naval concept, which focused on a potential conflict with France and Poland.[71] He argued that the attitude of the navy must not be determined by wishful thinking to reestablish itself as a major naval power. Its most important task in war was to prevent—at all costs—enemy forces from interdicting German SLOCs. World War I had proved the connection between German resistance at the home front and naval blockade: "Cutting off our sea lanes is the simplest and safest way, without any bloodshed, of defeating us. Our enemies know this as well. England has the most powerful fleet world-wide and its geographical position is disastrous for Germany. Therefore, any armed conflict has to be avoided that would turn England into one of our enemies. We would be doomed to failure right from the start."[72]

Raeder's memorandum concluded that the navy—without even considering the limits the peace treaty set—could fight the fleet only of a second-class sea power, such as France.

Naval Rearmament under Hitler, 1933–37

A few days after seizing power in January 1933, Adolf Hitler (1889–1945) made it clear to naval and other military commanders that he intended to develop the armed forces into an instrument of his power politics. As far as the translation of this objective into armament was concerned, Hitler was initially cautious. As he explained in a speech on February 3, 1933: "The most dangerous period is that of rearmament. Then we shall see whether France has statesmen. If she does, she will not grant us time but will jump on us (presumably with eastern satellites)."[73]

The Reichsmarine (German Navy) had to make do with compromises regarding the displacement and armament of its future capital ships. However, in view of the anticipated long-term buildup of the fleet, these compromises seemed acceptable. The last of three Panzerschiffe was launched in June 1934. The next two units were upgraded to battle cruisers (31,000 tons, thirty-one knots, nine 28 cm guns) in answer to the French battle cruisers *Dunkerque* and *Strasbourg*.[74]

The Anglo-German Naval Agreement of June 18, 1935, allowed Germany to have a surface fleet with a tonnage up to 35 percent of that of the British Empire.

German naval leaders now believed they had attained their goal of "equal" rights. The 35 percent ceiling applied not just to total tonnage but to individual categories of warships. In the case of U-boats, Germany was allowed to achieve 45 percent at first, later 100 percent, of British submarine strength. In this context, Germany gave assurances that its navy would adhere to what were known as the "cruiser rules" regarding submarine warfare conducted against merchant shipping.[75]

The navy's planning thus was based wholly on the structure of that of the other naval powers. Its motto was: What the other navies, with their rich traditions, consider proper, and what Germany now is permitted within the 35 percent ceiling, is what Germany will build. The navy started to build a so-called normal fleet: fast capital ships, heavy and light cruisers, aircraft carriers, destroyers, and—for the first time after seventeen years—submarines. One week after the Anglo-German Naval Agreement was announced, the navy commissioned its first, small (250-ton) U-boat—thereby revealing its long-term secret preparatory activity in this area.[76]

Even if the U-boat had not been improved in basic ways since 1918, it had developed considerably in every direction (e.g., in its improved torpedoes, its minelaying ability, and its capacity to transmit and receive signals both while surfaced and while submerged). Nevertheless, opinion was widespread in all navies that the U-boat had lost the eminence it had achieved in World War I as one of the most effective naval weapons. The British Admiralty was convinced that asdic (a submarine location device named after its progenitor, the Anti-Submarine Detection Investigation Committee) had reduced the submarine threat almost to extinction. In contrast to this opinion, the small German U-boat staff, centered on Capt. Karl Dönitz (1891–1980), was convinced that antisubmarine warfare (ASW) weapons were greatly overrated and had not made decisive progress since 1918.[77]

From 1928 onward, Admiral Raeder determined the navy's thinking. In studying Germany's World War I cruiser campaign, he had come to the conclusion that during the autumn of 1914 there had been a strategic correlation between the North Sea campaign and the operations of the cruiser squadrons in the Pacific and South Atlantic. Raeder realized that all naval theaters of war formed an interconnected whole, so any operation had to be viewed in relation to those in other areas. Accordingly, he made overseas cruiser warfare and battle-fleet operations in home waters integral components of a single naval strategy that sought to exploit diversionary effects, thereby exhausting the enemy's forces and disrupting his supplies.[78]

Raeder formulated his strategic thinking most clearly in a briefing to Hitler on February 3, 1937. Analyzing Germany's Great War experiences, he pointed out the correlation between strategy and a country's military-geographical situation. Raeder was aware of the likely "totality" of a future war—that it would be a struggle not just between forces but of "nation versus nation." He emphasized the negative consequences for Germany if it were unable to procure continually the raw materials it

lacked. In so doing, Raeder pointed out the glaring weaknesses in Germany's war potential—but was unable to influence Hitler's policy of confrontation.[79]

Buildup of the Navy against Britain, 1938–39

A fundamental change in strategic planning by the Kriegsmarine (as the German navy was known after 1935) commenced in spring 1938. As it became apparent that the Western powers opposed German expansion, Hitler issued a directive that all German war preparations should consider not only France and Russia but also Britain as potential enemies. A second confrontation with Britain now influenced all further planning for the next naval war. Raeder followed Hitler's hazardous course of confrontation willingly, or at least without protest, in contravention of his strong statement on this matter to Groener in 1929. Raeder assumed—erroneously—that the navy would have several years of peace to continue its buildup.

In the summer of 1938, the naval staff produced a strategic study that concluded that, given a geographical starting position similar to that of 1914, only oceanic cruiser warfare, employing improved Panzerschiffe and U-boats, held any prospect of success.[80] Despite this realization, a planning committee of senior officers busied itself with the question of what tasks battleships could perform in a cruiser war in the Atlantic. The result was paradoxical and revealing: "The chief of staff of the naval staff concluded at the end of the discussion that all participants agreed that battleships were necessary, but that no consensus regarding their use could be achieved for the time being."[81]

Traditionalists considered the most important arm of naval power to be capital ships. Focusing on them meant that the concept of sea control pushed the concept of sea denial into the background. Unlike the big-ship traditionalist Tirpitz, the naval staff during the 1930s had proposed a sea-denial strategy repeatedly. In contrast, the suggestion to develop a German strategy of sea control constituted a new, alternative approach to sea and world power in the twentieth century. In September 1938, the commander in chief of the fleet, Adm. Rolf Carls (1885–1945), noted as follows: "If, in accordance with the will of the Führer, Germany is to achieve a firm world-power position, it will need, in addition to sufficient colonies, secure sea routes and access to the high seas. . . . A war against Britain means a war against the Empire, against France, probably also against Russia and a number of countries overseas, in other words against one-half or two-thirds of the whole world."[82]

Nevertheless, Raeder was more inclined toward a sea-denial strategy via an oceanic cruiser campaign with Panzerschiffe, and he intended to give this strategy priority in the future armament program. However, by November 1938 he had been unable to gain Hitler's support for his program. Hitler did not accept the cruiser warfare strategy, insisting instead that the navy step up the pace of its battleship

construction so that as soon as possible he would have at his disposal an instrument of power he could employ globally.

The navy had to accept this decisive change. It formulated a new concept, the so-called Z-Plan, which centered on the construction of six capital ships by 1944. Additionally, battle cruisers, Panzerschiffe, aircraft carriers, fast light cruisers, and 247 U-boats were to form the backbone of German naval forces for the future Battle of the Atlantic. On January 27, 1939, when Hitler ordered that the buildup of the navy was to take precedence over all other tasks, including the rearmament of the army and the Luftwaffe (air force), he heralded a gigantic buildup of naval forces. Within a few months, the planning of a series of six new-design, diesel-driven battleships was complete; the construction of two units began in the summer of 1939. In the meantime, on April 27, 1939, Hitler denounced the Anglo-German Naval Agreement of 1935.[83]

The experiences of World War I acted as the starting point for developing the so-called pack tactics that German U-boats employed against enemy sea routes during World War II.[84] Dönitz recognized that the concentration of merchant shipping in convoys would require a similar concentration of U-boats to counter. And before the U-boats could attack a convoy, they needed to locate it—in other words, the problem of reconnaissance would have to be solved. In 1917–18, a number of U-boats had attacked successfully on the surface, under cover of darkness. During the evaluation of wartime experiences, former U-boat commanders recommended adoption and further development of this method of attack. Dönitz also had drawn attention to the advantages of night attacks in his book *Die U-Bootswaffe,* published in 1939. Nonetheless, later in World War II, this type of attack took British ASW defenses by surprise—they had relied too much on the supposed superiority of asdic. The escort forces were unable to cope with the German tactic, particularly as asdic had an effective range of no more than about 1,400 meters, which left it ineffective against U-boats operating on the surface.[85]

WORLD WAR II

Disillusionment came on September 3, 1939. Totally unexpectedly, Hitler ordered the navy to launch a naval war against Britain.[86] The German navy was in no way prepared. Raeder's initial estimate of the situation was very pessimistic, and he resigned himself to the realization that neither the few U-boats nor the surface forces would have any decisive effect on the outcome of the war: "They can do no more than show that they know how to die gallantly and thus are willing to create the foundations for later reconstruction."[87]

However, the progress of the war soon demanded a new estimate of the situation. Nine months on, Poland, Denmark, Norway, Belgium, Luxembourg, and the Netherlands had been occupied; by June 22, 1940, France had suffered a total defeat. German naval control extended from Norway to the Pyrenees. Therefore,

the German naval staff switched to an offensive concept of naval warfare, aimed solely at destroying Britain's maritime transport capacity. The Kriegsmarine's surface forces were insufficient for such a task; to supplement them, the navy concentrated on constructing and employing the means of naval warfare that had proved its worth during World War I—the U-boat.

The naval staff knew from its experience during the previous war that employment of the U-boat against the enemy's merchant marine could be successful only if U-boats were deployed continuously along the enemy's SLOCs, employing as many vessels as possible. The navy calculated that the number of U-boats permanently at sea should range from 100 to 150 boats. Taking into consideration time for maintenance and resupply, this meant the navy needed approximately three hundred operational boats at its disposal.[88] In the quest to achieve this, time was an important factor:

1. In an economic war waged against a country that depended on supplies by sea, success could only be achieved in the long run. It was therefore a question of continuously weakening the enemy's maritime transport capacity to an extent that exceeded the rate at which the enemy could construct new merchantmen.

2. From the summer of 1940 onward, it became apparent that the British war effort increasingly was being supported by the resources of the United States. This made the naval staff intent on "putting Britain out of action soon, before the effects of even greater American aid made themselves felt."[89]

3. Since it took around two years to construct a U-boat and bring it to operational status, amassing the numbers the navy envisaged so as to achieve the necessary concentration of forces required plans to be made at a very early stage.[90]

While a numerically increasing U-boat fleet held out the prospect of German success, the naval staff had to take into account that the enemy, in view of the looming threat, would do everything he could to strengthen his ASW effort.

In October 1939, the naval command presented a U-boat buildup plan that set a monthly rate of twenty-nine boats. Hitler approved the plan; however, he refused to sanction priority, since he was at that time more concerned with the demands of the imminent land campaign against France.[91] One year later, in November 1940, the navy had to realize that U-boat construction was being held up by shortages, and that the current building rate barely covered the current loss rate. The naval staff foresaw that there would be limits to the Reich's material resources and production capacities. In December 1940, it viewed America's growing support of Britain as a dangerous development "towards a marked prolongation of the war." To the naval staff, this portended a "very negative effect on the overall German war strategy."[92] This statement expressed the simple, obvious fact that Germany could not win a prolonged war of attrition against the two Atlantic naval powers.

For this reason, in December 1940, Grand Admiral Raeder requested that Hitler "recognize that the greatest task of the hour is concentration of all our power

against Britain." To Raeder, this meant focusing air and naval forces against British supplies. The admiral was firmly convinced that U-boats were the decisive weapon to be used against Britain. Although Hitler did not reject Raeder's view, he referred to the allegedly new political situation: the necessity "to eliminate at all cost the last enemy remaining [i.e., Soviet Russia] on the continent, before he can collaborate with Britain. . . . After that, everything can be concentrated on the needs of the Air Force and the Navy."[93] In Hitler's eyes, Britain was not the enemy on which all weapons had to be concentrated, but a potential partner who might be made to "see reason" if an appropriate amount of military pressure were applied. Hitler also knew that a forced economic war could not lead to any marked success in one year. Furthermore, this kind of effort could increase the danger of the United States entering the war, something he sought to avoid at that point.[94]

In July 1941, after the first successes in the war against Russia, the naval staff tried to convince both the Wehrmacht (Armed Forces) Command and Hitler of the immediate strategic necessity to concentrate on fighting the Anglo-Saxon naval powers. Analyzing the threat to which Germany was exposed, the naval staff portrayed the dilemma of a European continental state that lacked the vital elements of a naval power but was forced to fight against the greatest naval powers: "While in World War I we had the second strongest battle fleet in the world but no appropriate operational base, we now dispose of a strategically favorable operational base, however, we do not have the required battle fleet to operate within the Atlantic."[95]

The naval staff predicted that the two Allied naval powers would continue to fight, even if the Soviet Union collapsed, so they could reach their "final goal": destroying Germany on the continent. The naval staff came to the conclusion that "the enemies' prospect for the battle in the Atlantic for the year 1942 must be assessed as favorable." For this reason, the naval staff advocated that Germany bring about a decision in the Atlantic by taking advantage of both political assets (the cooperation of Vichy-France and Japan) and military assets (the concentrated employment of all available forces, in particular the U-boats and air forces).[96]

From 1940 onward, Germany possessed a good geographical position for naval warfare in the Atlantic, but this basis could not be exploited fully, owing to insufficient weaponry. The U-boat provided an effective weapon in the fight against enemy shipping up to 1942, but thereafter wider war demands, especially the critical situations in the Mediterranean and on the eastern front, forced the naval command to employ its last remaining offensive capability like an "operational fire brigade."[97] This led to enormous attrition, which was counterproductive to the strategic concept of mass concentration in the Atlantic. As the Allies developed better ASW weapons, the concept of a "U-boat war" failed in 1943 because the submarine had lost its ability to escape from enemy surveillance.

In fact, the concept of attrition warfare began to fail by the fall of 1942 in the face of the mobilization of Allied resources and industrial capacities, especially those of the United States. The German naval staff analysis at that time of the accelerating buildup of Allied maritime transport capacity already revealed that the U-boats could not increase the monthly rate of sinkings to a level necessary to win the "tonnage race." The naval staff delivered a pessimistic prognosis: "If, . . . considering the enemy's rising production output, Germany wishes to diminish the enemy's tonnage from the end of 1942 onwards to the same extent as is currently being achieved, ship sinkings per month will have to be increased to approximately 1,300,000 GRT. Given the current situation, it is doubtful whether such a high rate of ship sinkings will be feasible for a sustained period of time."[98] Recalling the historical argument that "no war in history . . . has yet been won by the use of one method of warfare," the naval staff came around to an understanding that reflected actual conditions.[99] By the end of 1942, German U-boats, as a realistic threat, had succumbed to the immense industrial capacity of the United States.

From 1943 onward, the navy had an officer at the helm, Grand Admiral Dönitz, who both was a charismatic leader and had close links to Hitler and Nazi ideology. Not until after Hitler's death did he change "from the almost-blind tool of a criminal to the responsible soldier of the traditional Prussian school."[100] At that point he did everything in his power to end the already-lost war in a proper fashion and, at the same time, to evacuate as many people as possible across the Baltic to the West. The latter effort—the navy's last wartime act—brought the service much positive postwar public recognition.[101]

Over the course of the twentieth century, Germany twice tried to force a strategic decision, in direct confrontation with the Anglo-Saxon naval powers, by cutting the Atlantic shipping routes. Both attempts ended in failure. The second defeat brought with it the end of the German Reich and the dissolution of all German armed forces.

BUILDING A NEW NAVY AFTER 1955

The Western orientation of the Federal Republic of Germany (FRG) led to close integration of the new German armed forces into the Atlantic Alliance.[102] Ten years after the surrender of Germany's World War II forces, a new German naval force came into existence. The allied forces—especially the U.S. Navy, including its CNO, Adm. Arleigh Burke (1901–96)—supported its creation. During the first years of the buildup, a close cooperation and friendship developed between Admiral Burke and Vice Adm. Friedrich Ruge (1894–1985), the first head of the Federal German Navy (FGN).[103]

Burke created a basis of confidence with his firm conviction that allied forces could fulfill their common tasks only if their cooperation were based on openness and mutual trust. Vice Admiral Ruge succeeded in establishing this basis of confidence, which today is accepted as a matter of course.

This meant for the FGN, the smallest of the armed services within the FRG armed forces, that, for the first time in its history, the naval service was obliged merely to perform that function "which a German Navy can actually perform," in close cooperation with the great maritime powers.[104]

At the same time the FRG joined NATO in May 1955, the German Democratic Republic (GDR) was integrated into the Warsaw Pact. The formation of light naval forces ensued, out of the Volkspolizei See (i.e., the national sea police force of the GDR) that had been in existence since 1950. In 1960, the GDR's newly established forces were termed Volksmarine (People's Navy), in commemoration of the 1918 revolutionary tradition. This navy, which was strictly integrated within the ideological leadership claimed by the Communist Party, demonstrated little continuity with former German naval forces, whether in formation, structure, or mandate. Within the Warsaw Pact it evolved into an *offensive* naval force for use in confined and littoral waters.

The two German naval forces exhibited great disparity until 1990. Each navy regarded the other as a potential military adversary in the context of the system of alliances. However, both were spared the necessity to prove their combat strength. With the reunification of the German republics in the fall of 1990, parts of each were incorporated into the German navy.[105]

Today, the German navy has not only a lively interest in its history but a special relationship to it. A clear link can be seen between the historical self-understanding of its officers and the history of their service. In the past, this link often served only as an attempt to legitimize and secure the service's position. The navy, which came into being in the mid-nineteenth century, often had to fight for recognition and even for its existence during a relatively short history. However, when historical interest is limited only to the navy and naval warfare, there is a danger that too little attention will be paid to the overlapping political correlations.

Nowadays the situation is different. Germany is one of the leading export nations in the world, and therefore extremely dependent on trade and the unhampered use of the high seas. This situation requires an understanding and an acceptance of the maritime domain as a vital Achilles' heel for the prosperity of the German economy and society. This situation underlines the necessity for a well-balanced navy that is able to conduct demonstrations and to protect German maritime interests, in cooperation with alliances and partners. The situation for the German

navy is much more comfortable at present than in previous eras, reinforcing its self-confidence; but a wider understanding of its roles is needed, now more than ever.

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1 The first part of this article is based on my essay "Germany," in *Ubi Sumus? The State of Naval and Maritime History,* Historical Monograph 11, ed. John B. Hattendorf (Newport, RI: Naval War College Press, 1994), pp. 137–57.

2 John Keegan, *The Face of Battle: A Study of Agincourt, Waterloo, and the Somme* (London: Jonathan Cape, 1976), p. 29.

3 Ibid., p. 32.

4 Thomas Nipperdey, "Wozu Geschichte gut Ist," *Militärgeschichtliche Mitteilungen* 41, no. 1 (1987), p. 9.

5 Statement of Rolf Johannesson [Rear Adm., FGN (Ret.)] to the audience, in *Der Marineoffizier als Führer im Gefecht,* ed. Deutsches Marine Institut (Herford, F.R.G.: E. S. Mittler, 1984), p. 242.

6 See Jens Graul and Dieter Hartwig, eds., *Von den Historikern für die Flotte* (Bochum, Ger.: Winkler, 2011), esp. annex, pp. 141–200.

7 The following material is based on my article "140 Years of German Navies: Their Defeat and Rebirth—from Confrontation to Co-operation," in *The Influence of History on Mahan,* Historical Monograph 9, ed. John B. Hattendorf (Newport, RI: Naval War College Press, 1991), pp. 81–84, and my entry "Navies, Great Powers: Germany, 1848–1945," in *Oxford Encyclopedia of Maritime History,* ed. John B. Hattendorf (Oxford, U.K.: Oxford Univ. Press, 2007), vol. 2, pp. 705–11. See also Werner Rahn, ed., *Deutsche Marinen im Wandel: Vom Symbol nationaler Einheit zum Instrument internationaler Sicherheit* (Munich, Ger.: Oldenbourg, 2005).

8 For details, see Günter Moltmann, "Die deutsche Flotte von 1848/49 im historisch-politischen Kontext," in Rahn, *Deutsche Marinen im Wandel,* pp. 64–80.

9 Adalbert [Prinz von Preußen], *Denkschrift über die Bildung einer deutschen Kriegsflotte* (Potsdam, Ger.: 1848); reproduced in Jörg Duppler, *Prinz Adalbert von Preußen: Gründer der deutschen Marine* (Herford, F.R.G.: E. S. Mittler, 1986), pp. 79–115.

10 For details, see Günter Moltmann, *Atlantische Blockpolitik im 19. Jahrhundert: Die Vereinigten Staaten und der deutsche Liberalismus von 1848/49* (Düsseldorf, F.R.G.: Droste, 1973), pp. 150–56.

11 See Duppler, *Prinz Adalbert von Preußen,* p. 50.

12 Alfred von Tirpitz, *Erinnerungen* (Leipzig, Ger.: Koehler, 1920), p. 127.

13 Tirpitz was ennobled in January 1900. Latest biographies of him include Patrick J. Kelly, *Tirpitz and the Imperial German Navy* (Bloomington: Indiana Univ. Press, 2011), and Michael Epkenhans, *Tirpitz: Architect of the German High Seas Fleet* (Washington, DC: Potomac Books, 2008).

14 Cf. Holger H. Herwig, "The Influence of A. T. Mahan upon German Sea Power," in Hattendorf, *The Influence of History on Mahan,* pp. 67–80.

15 Alfred von Tirpitz, "Taktische und strategische Dienstschriften des Oberkommandos der Marine, Nr. IX: Allgemeine Erfahrungen aus den Manövern der Herbstübungs-Flotte," June 16, 1894 [hereafter Dienstschrift No. IX], app. doc. no. 2, RM 4/176, Bundesarchiv-Militärarchiv, Freiburg, Ger. Cf. in this context Volker R. Berghahn, *Der Tirpitz-Plan: Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf, F.R.G.: Droste, 1971), pp. 45–89; Ivo Nikolai Lambi, *The Navy and German Power Politics 1862–1914* (Boston: Allen and Unwin, 1984), pp. 68–86; and Rolf Hobson, *Imperialism at Sea: Naval Strategic Thought, the Ideology of Sea Power, and the Tirpitz Plan, 1875–1914* (Boston: Brill, 2002).

16 Dienstschrift No. IX, pp. 2, 5.

17 The Jeune École dominated French naval thought in the 1880s. It made commerce raiding a strategic priority and placed great reliance on new technologies, primarily the torpedo. Rahn, "Navies, Great Powers: Germany, 1848–1945," p. 703.

18 For further details on his appointment, see Berghahn, *Der Tirpitz-Plan,* passim.

19 "Allgemeine Gesichtspunkte bei der Feststellung unserer Flotte nach Schiffsklassen und Schiffstypen"

["General Considerations on the Constitution of Our Fleet according to Ship Classes and Designs"], June 1897. The German version of the complete document and a translation appear in Jonathan Steinberg, *Yesterday's Deterrent: Tirpitz and the Birth of the German Battle Fleet* (London: Macdonald, 1965), p. 209.

20 Curt Freiherr von Maltzahn, *Der Kampf gegen die Seeherrschaft* (Kiel, Ger.: C. Schaidt, 1898). Ca. 1971–72 I drew on a private copy of the original while consulting the papers of Admiral Behncke in the German Military Archive; some years later the original seems to be missing. Cf. John B. Hattendorf, "The Caird Lecture, 2000: The Anglo-French Naval Wars (1689–1815) in Twentieth-Century Naval Thought," in *Talking about Naval History: A Collection of Essays,* Historical Monograph 19 (Newport, RI: Naval War College Press, 2011), pp. 83–103.

21 Maltzahn, *Der Kampf gegen die Seeherrschaft,* p. 15.

22 Cf. Wilhelm Deist, *Flottenpolitik und Flottenpropaganda: Das Nachrichtenbureau des Reichsmarineamtes 1897–1914* (Stuttgart, F.R.G.: Deutsche Verlags-Anstalt, 1976).

23 Quoted in Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904–1919,* vol. 1, *The Road to War 1904–1914* (London: Oxford Univ. Press, 1961), p. 277. Cf. in this context Holger H. Herwig, *"Luxury" Fleet: The Imperial German Navy 1888–1918* (London: George Allen and Unwin, 1980), pp. 76–77.

24 Marder, *The Road to War 1904–1914,* p. 286.

25 Admiral Tirpitz to Admiral Müller [Chief of the Naval Cabinet], February 26, 1912, in ibid. For Müller, see also ibid., p. 78 note 11 and pp. 223–24. In 1904, the United Kingdom and France formed the Entente Cordiale; in 1907 the United Kingdom and Russia formed their own entente; collectively this resulted in the so-called Triple Entente.

26 Cf. in this context Michael Epkenhans, "Technology, Shipbuilding and Future Combat in Germany, 1880–1914," in *Technology and Naval Combat in the Twentieth Century and Beyond,* ed. Phillips Payson O'Brien (London: Routledge, 2001), pp. 53–68.

27 Marder, *The Road to War 1904–1914,* p. 373.

28 Cf. Wulf Diercks, "Der Einfluss der Personalsteuerung auf die deutsche Seekriegführung 1914–1918," in Rahn, *Deutsche Marinen im Wandel,* pp. 235–67. Cf. also Kurt Assmann, *Deutsche Seestrategie in zwei Weltkriegen* (Heidelberg, F.R.G.: Vowinckel, 1957), pp. 32–35, and Marder, *The Road to War 1904–1914,* pp. 412–13. Vice Admiral Assmann was head of the German naval archives, 1933–43.

29 Cf. Paul Kennedy, "Maritime Strategieprobleme der deutsch-englischen Flottenrivalität," in *Marine und Marinepolitik im kaiserlichen Deutschland 1871–1914,* ed. Herbert Schottelius and Wilhelm Deist, 2nd ed. (Düsseldorf, F.R.G.: Droste, 1981), pp. 178–210. See also Edward Wegener, "Die tirpitzsche Seestrategie," in ibid., pp. 236–62.

30 Marder, *The Road to War 1904–1914,* p. 379.

31 Cf. Kennedy, "Maritime Strategieprobleme," pp. 197–98.

32 Quoted in Marder, *The Road to War 1904–1914,* p. 382.

33 Quoted in German by William Michaelis, "Tirpitz' strategisches Wirken vor und während des Weltkrieges," in Rahn, *Deutsche Marinen im Wandel,* pp. 397–425; also quoted (with a slightly different text) by Assmann, *Deutsche Seestrategie,* p. 30.

34 Arthur Hezlet, *The Submarine & Sea Power* (London: Peter Davies, 1967), p. 23.

35 For details, see Arno Spindler, *Der Handelskrieg mit U-Booten,* vol. 1, *Vorgeschichte* (Berlin: E. S. Mittler, 1932), pp. 148–76.

36 This section is based on my article "German Naval Power in the First and Second World Wars," in *Naval Power in the Twentieth Century,* ed. N. A. M. Rodger (Basingstoke, U.K.: Macmillan, 1996), pp. 88–100.

37 "Operations Order for North Sea Theatre, 30 July 1914," quoted by Otto Groos, *Der Krieg in der Nordsee,* vol. 1, *Kriegsbeginn bis Anfang September 1914,* 2nd ed., Krieg zur See, 1914–1918 (Berlin: Marine-Archiv, 1922), p. 54. Cf. Paul G. Halpern, *A Naval History of World War I* (Annapolis, MD: Naval Institute Press, 1994), p. 23.

38 Cf. Erich Raeder [Vizeadmiral], *Der Kreuzerkrieg in den ausländischen Gewässern,* vol. 1, *Das Kreuzergeschwader* (Berlin: Zweite, 1927), pp. 244–54.

39 Cf. Halpern, *A Naval History,* pp. 109–24.

40 Julian S. Corbett, *History of the Great War: Naval Operations,* vol. 1, *To the Battle of the Falklands, December 1914* (London: Longman, 1920), p. 70ff.

41 James M. Morris and Patricia M. Kearns, eds., *Historical Dictionary of the U.S. Navy* (London: Scarecrow, 1998), s.v. "fleet in being": "a naval force that acts as a deterrent to hostile action in an area because of its ability to inflict appropriate damage on an enemy." Cf. Raeder, *Das Kreuzergeschwader,* p. 81.

42 Hezlet, *The Submarine & Seapower,* p. 28. Cf. Halpern, *A Naval History,* p. 33.

43 Cf. Groos, *Der Krieg in der Nordsee,* vol. 2, *Von Anfang September bis November 1914,* Krieg zur See, 1914–1918 (Berlin: E. S. Mittler, 1925), pp. 184–85.

44 Cf. Gerhard Ritter, *The Sword and the Scepter: The Problem of Militarism in Germany,* vol. 3, *The Tragedy of Statesmanship: Bethmann Hollweg as War Chancellor (1914–1917)* (Coral Gables, FL: Univ. of Miami Press, 1971), pp. 288–318.

45 Ibid., pp. 124–25.

46 Spindler, *Vorgeschichte,* p. 87. For translation, see Halpern, *A Naval History,* p. 293.

47 Naval Staff to High Seas Fleet, March 28, 1915, quoted in Hans J. Koerver, *War of Numbers 1914–1916: The Kaiser's Navy Gone Rogue* (Steinbach, Aus.: LIS Rheinisch, 2016), p. 84 note 171.

48 Quoted in Koerver, *War of Numbers,* p. 78.

49 Cf. Spindler, *Der Handelskrieg mit U-Booten,* vol. 3, *Oktober 1915–Januar 1916* (Berlin: E. S. Mittler, 1934), esp. pp. 85–153.

50 See "Denkschrift des Reichskanzlers von Bethmann-Hollweg," February 29, 1916, quoted in Spindler,

Oktober 1915–Januar 1916, p. 98. See also Ritter, *The Tragedy of Statesmanship,* p. 164ff.

51 German note to U.S. government, May 5, 1916, in Spindler, *Oktober 1915–Januar 1916,* pp. 145–49, quotation at p. 148.

52 For details, see Spindler, *Oktober 1915–Januar 1916,* pp. 154–245.

53 Three of the ships were from Britain, one from Norway, and one from the Netherlands. For details of this visit, including pictures, see Wellington Long, "The Cruise of the U-53," U.S. Naval Institute *Proceedings* 92/10/764 (October 1966), pp. 86–95; Jan Heitmann, *Unter Wasser in die Neue Welt: Handelsunterseeboote und kaiserliche Unterseekreuzer im Spannungsfeld von Politik und Kriegführung* (Berlin: Berlin-Verl. Spitz, 1999), pp. 227–250; Hans Rose, "U 53 fährt nach Amerika," in Werner von Langsdorff, *U-Boote am Feind: 45 deutsche U-Boot-Fahrer erzählen* (Gütersloh, Ger.: Bertelsmann, 1937), pp. 158–85; and David Kohnen, with Nicholas Jellicoe and Nathaniel Sims, "The U.S. Navy Won the Battle of Jutland," *Naval War College Review* 69, no. 4 (Autumn 2016), pp. 136–37.

54 Ernst von Weizsäcker, diary entry, September 27, 1916, quoted in *Die Weizsäcker-Papiere 1900–1932,* ed. Leonidas E. Hill (Berlin, F.R.G.: Propyläen-Verlag, 1982), p. 215. Cf. Holger H. Herwig, *The German Naval Officer Corps: A Social and Political History, 1890–1918* (Oxford, U.K.: Oxford Univ. Press, 1973), p. 188.

55 Cf. Ritter, *The Tragedy of Statesmanship,* pp. 288–318.

56 Ibid., p. 334.

57 Cf. Barbara Tuchman, *The Zimmermann Telegram* (Edinburgh, Scot.: Constable, 1959), and Patrick Beesly, *Room 40: British Naval Intelligence 1914–18* (London: Hamilton, 1982), pp. 204–24.

58 For details, see Spindler, *Der Handelskrieg mit U-Booten,* vol. 4, *February until December 1917* (Berlin: E. S. Mittler, 1941; repr. London: Putnam, 1964).

59 Cf. Spindler, *Der Handelskrieg mit U-Booten,* vol. 5, *Januar bis November 1918* (Frankfurt, F.R.G.: E. S. Mittler, 1966), esp. attachments at pp. 343–98.

60 Cf. Werner Rahn, "Die Kaiserliche Marine und der Erste Weltkrieg," in *Ringelnatz als Mariner im Krieg 1914–1918,* ed. Stephan Huck (Bochum, Ger.: Taschenbuch, 2003), pp. 39–89, esp. table p. 72.

61 For details, see Gerhard P. Groß, ed., with the assistance of Werner Rahn, *Der Krieg zur See 1914–1918: Der Krieg in der Nordsee,* vol. 7, *Vom Sommer 1917 bis zum Kriegsende* (Hamburg, Ger.: 2006), see esp. documents as attachments, pp. 423–64.

62 This section is based mainly on Jost Dülffer, *Weimar, Hitler und die Marine: Reichpolitik und Flottenbau 1920–1939* (Düsseldorf, F.R.G.: Droste, 1973); Werner Rahn, *Reichsmarine und Landesverteidigung 1919–1928: Konzeption und Führung der Marine in der Weimarer Republik* (Munich, F.R.G.: Bernard & Graefe, 1976); and "German Naval Strategy and Armament, 1919–39," in O'Brien, *Technology and Naval Combat*. Cf. Wilhelm Deist et al., eds., "The Rearmament of the Wehrmacht," pt. 3 in *Germany and the Second World War,* vol. 1, *The Build-Up of German Aggression* (Oxford, U.K.: Oxford Univ. Press, 1990), pp. 372–540.

63 Cf. Marder, *From the Dreadnought to Scapa Flow,* vol. 5, *Victory and Aftermath* (London: Oxford Univ. Press, 1970), p. 258, and Stephen W. Roskill, *Naval Policy between the Wars,* vol. 1, *The Period of Anglo-American Antagonism 1919–1929* (London: Collins, 1968), p. 92.

64 Cf. Roskill, *The Period of Anglo-American Antagonism 1919–1929,* p. 100.

65 Cf. Andreas Krause, *Scapa Flow: Die Selbstversenkung der wilhelminischen Flotte* (Berlin: Ullstein, 1999).

66 For details, see Rahn, *Reichsmarine und Landesverteidigung 1919–1928,* pp. 13–50.

67 Cf. ibid., pp. 35–42.

68 "Annual Report on Germany for the Year 1928," March 25, 1929, p. 33, FO 311/1364, National Archives, Kew, U.K.

69 Cf. Rahn, *Reichsmarine und Landesverteidigung 1919–1928,* p. 245ff.

70 See ibid., pp. 144–46.

71 The May 1929 document "Does Germany Need Large Warships?" is included in Rahn, *Reichsmarine und Landesverteidigung 1919–1928,* pp. 281–86.

72 Translation is from Rahn, *Reichsmarine und Landesverteidigung 1919–1928,* p. 283ff.

73 Quoted by Andreas Hillgruber, *Germany and the Two World Wars,* trans. William C. Kirby (Cambridge, MA: Harvard Univ. Press, 1982), p. 57.

74 For details, see Siegfried Breyer, *Schlachtschiffe und Schlachtkreuzer 1905–1970: Eine geschichtliche Entwicklung des Großkampfschiffes* (Erlangen, Ger.: Karl Müller, 1993).

75 See Dülffer, *Weimar, Hitler und die Marine,* pp. 204–334.

76 Cf. Allison W. Saville, "The Development of the German U-boat Arm, 1919–1935" (PhD dissertation, Univ. of Washington, 1963).

77 Dönitz joined the IGN in 1910. During World War I he commanded *UB-68,* which was sunk in 1918; he became a prisoner of war. From 1934 to 1935 he commanded the cruiser *Emden*. He served as Chief, U-boat Command from 1935 until January 1943. Dönitz was promoted to captain in 1935, rear admiral in October 1939, and grand admiral in February 1943. From 1943 to 1945 he was commander in chief of the navy. In October 1946 he was sentenced at Nuremberg to imprisonment for ten years, and in October 1956 was released from prison. Dönitz died on December 24, 1980. Cf. Clay Blair, *Hitler's U-boat War: The Hunters, 1939–1942* (New York: Random House, 1996), pp. 35–49; Peter Padfield, *Dönitz: The Last Führer; Portrait of a Nazi War Leader* (New York: Harper and Row, 1984); and Dieter Hartwig, *Großadmiral Karl Dönitz: Legende und Wirklichkeit* (Munich, Ger.: Schöningh, 2010).

78 For details, see Rahn, *Reichsmarine und Landesverteidigung 1919–1928,* p. 127.

79 Cf. in this context Michael Salewski, *Die deutsche Seekriegsleitung 1935–1945,* vol. 1, *1935–1941* (Frankfurt, F.R.G.: Bernard & Graefe, 1970), pp. 32–33; Dülffer, *Weimar, Hitler und die Marine,* pp. 435–36; and Carl-Axel Gemzell, *Raeder, Hitler und Skandinavien: Der Kampf für einen maritimen Operationsplan* (Lund, Swed.: C. W. K. Gleerup, 1965), pp. 49–51.

80 Cf. Salewski, *Die deutsche Seekriegsleitung 1935–1945,* vol. 3, *Denkschriften und Lagebetrachtungen* (Frankfurt, F.R.G.: Bernard & Graefe, 1973), esp. pp. 27–63. Note document no. 1, "Seekriegführung gegen England."

81 Deist et al., "The Rearmament of the Wehrmacht," p. 474.

82 Ibid., p. 475.

83 For details, see Dülffer, *Weimar, Hitler und die Marine,* and Salewski, *1935–1941*.

84 Cf. Hubert Jeschke, *U-Boottaktik: Zur deutschen U-Boottaktik 1900–1945* (Freiburg, F.R.G.: Rombach, 1972), pp. 63–65.

85 Stephen W. Roskill, *The War at Sea 1939–1945,* vol. 1, *The Defensive* (London: Her Majesty's Stationery Office, 1954), pp. 35–36; Karl Dönitz, *Zehn Jahre und zwanzig Tage: Erinnerungen 1935–1945* (Koblenz, F.R.G.: Bernard & Graefe, 1985), p. 26; cf. the translation, Karl Dönitz, *Memoirs: Ten Years and Twenty Days,* trans. R. H. Stevens (Annapolis, MD: Naval Institute Press, 1990).

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93 Cf. *Fuehrer Conferences,* pp. 160–63. See also Andreas Hillgruber, *Hitlers Strategie: Politik und Kriegführung 1940–1941* (Frankfurt, F.R.G.: Bernard & Graefe, 1965), pp. 352–77, and Bernd Wegner, "The Road to Defeat: The German Campaigns in Russia 1941–43," in *Decisive Campaigns of the Second World War,* ed. John Gooch (London: Frank Cass, 1990), pp. 105–27, esp. pp. 106–107.

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The President, U.S. Naval War College, takes great pleasure in awarding

The Hattendorf Prize for Distinguished Original Research in Maritime History

to Geoffrey Till, B.A., M.A., Ph.D., F.K.C.

For your life-long contributions as an assiduous historical researcher, distinguished author, and accomplished professor, it is particularly appropriate to honor your achievements here at the Twenty-third International Seapower Symposium, where the world's naval leaders are gathered. Most, if not all, of the navies represented here today have made extensive use of your publications and have benefited from your insights. Recognized as one of the world's most widely known and highly respected students of contemporary maritime strategy and naval history, you have been a coveted teacher and lecturer. As testimony to your stature, you have authored or edited 33 books, 101 chapters in published books, and 109 journal articles all of which reflect your original research and innovative analytical thinking about naval strategy, doctrine, and history. Having served as a guest lecturer at defense and naval staff colleges in more than 30 countries, coupled with your writing being translated into a dozen languages, you have made an incalculable intellectual impact on professional naval thought not only in Britain and the United States, but around the globe. At the same time, you have served as an amazingly effective scholarly liaison between the academic community and policymakers as well as an important advisor to navies, think tanks, and institutions of professional military education. You have made an immense contribution in your roles as a university examiner for doctorates on naval topics, as editor of the largest series of scholarly naval monographs, and as a distinguished member of editorial boards, book review editor, book reviewer, and manuscript reviewer for books and journals. In all of these undertakings, you maintained the highest standards of scholarship and literature while remaining a jewel in the academic crowns of many colleges and universities throughout the world. This award honors you and your work, expressing appreciation for your distinguished academic research, insight, and writing that contribute to a deeper historical understanding of the influence of sea power on international history, and the rise and fall of great powers.

Presented this 20th day of September 2018
at the U.S. Naval War College, Newport, Rhode Island.

Jeffrey A. Harley
Rear Admiral, U.S. Navy

IV

History, Truth Decay, and the Naval Profession

GEOFFREY TILL

Why in this age of constant technological, economic, social, and political change should navies actively concern themselves with the naval past? Herein I will try to answer this question, one often asked by skeptics anxious to insert into the developing courses of professional military education (PME) material that seems so much more relevant to the contemporary problems they face. The result easily can lead to efforts to cut history out of the syllabus or, more insidiously, to reduce it to the level where it becomes little more than a means of socializing new entrants and developing team spirit, necessary and laudable though those aims might be. After all, it has been said, with some justice, that a navy that does not know its history has no soul.[1]

I will start by reviewing some of the basic problems that today's navies face. Then I will consider the contribution that naval history might make to dealing with those problems, first as a quarry of processed experience and second as an intellectual exercise. Finally, I will seek to show the particular value of history in developing naval professionalism in a challenging social media age. By way of conclusion, I will look at some of the responsibilities that all this lays on historians.

CONTEXT: SOME CURRENT PROBLEMS FOR NAVIES

The basic point is that navies need to understand their function.[2] This isn't easy, these days. The potential tasks of navies have expanded, have grown more complex, and increasingly are seen as relatively more important, as the burgeoning navies of the Asia-Pacific region so amply demonstrate. For the navies of the twenty-first century, it is no longer enough to understand the war-fighting and deterrent war-prevention roles, analyzed by the likes of Mahan and Corbett at the beginning of the last century, as they are affected by the international, technological, and social realities of this one. That is difficult enough.

Now we have to add a whole series of nontraditional, "postmodern" tasks associated with Maritime Security (with capital letters). These include the challenges presented by drug runners, trafficking in illegal migrants, international terrorism, humanitarian action, disaster relief, environmental protection, search and rescue,

capacity building, security sector reform, and so on. In many cases, early and effective engagement in these so-called Phase 0 activities will head off the need to exercise traditional war-fighting skills later on.[3] But preparing for what the British military currently calls *contingency* is an inherently complicated business.[4]

One problem in the pursuit of guidance for making unavoidably difficult decisions about relative operational priorities is that of having to "see through a glass darkly." It is uniformly and intrinsically difficult for foreign ministries, treasuries, or defense and naval staffs to predict the future or to gauge its requirements. This difficulty is demonstrated by the problems that all navies face these days in getting their kit because the lead times normally required to produce sophisticated naval weapons, sensors, and platforms and their probable service lives are likely to be very long. A great many of the ships of the fleets of the 2030s are already at sea or at an advanced stage of design.[5] This, together with rising costs and reduced budgets, makes the acquisition of naval matériel increasingly difficult. One set of victims of the procurement process (taking a leaf out of Jane Austen's book) have remarked recently, "It is a truth universally acknowledged that defence equipment acquisition is one of the most challenging of human activities . . . a uniquely demanding bureaucratic morass littered with military, technological, economic, and political pitfalls."[6]

Future-oriented procurement strategies tend to suffer badly from the unpredictability of the future economic, budgetary, and strategic environments. All too frequently, this development risk produces cycles of boom and bust that make sustained planning over, say, a thirty-year period almost impossible for manufacturers and their customers. Typically, this will result in constant delays, cost increases, and iterative tinkering with original specifications—and eventually in the failure or chronic delay of the program in ways that mean that the navy tends to acquire new matériel in a piecemeal, opportunistic way rather than as part of an overall strategic plan. This manner of acquisition may undermine a navy's capacity to perform its present roles, not to mention its future ones. No navy has shown itself immune to such pressures and constraints; all navies need to be encouraged to think about how best to get around, if not to overcome, such difficulties.

Another problem is that, to some extent at least, the requirements of these possible contingency tasks conflict with those of the more familiar war-fighting ones. The funds expended on a carrier, for example, could generate any number of capable offshore patrol vessels. Again, the more sailors train for things such as the detection and apprehension of drug runners, the less they can train for antisubmarine operations. Given that resources, both human and material, are finite, choices have to be made.

Paradoxically, this is partly an unexpected product of success. Because of the fundamental flexibility of sea power, navies can deliver everything from bombs to

babies, so they often are called on to do more or less everything at sea and quite often on land as well. Since the world's navies thus have shown themselves to be of such utility across the full spectrum of possible maritime operations, their success has increased the painful matter of operational and strategic choice dramatically in the setting of priorities for which they prepare. This is not an entirely new problem for them, of course, since navies always have had to take on functions other than those of simply obliterating one another, but there is a strong argument for saying that their resulting dilemmas of choice are much greater now than they ever have been before.

Worse still, all these possible roles and requirements are in a state of constant change. A force at sea, even one already engaged in prosecuting its dedicated mission, can find itself also having to confront and respond to a whole host of different high- and low-intensity challenges across the spectrum, especially when, as they usually do, events combine to confound initial expectations about the nature and almost certainly the length of the original mission. As is so often said in such dynamic situations, it is unwise to assume your plan's survival once contact with the problem is made. Thus when a number of Western powers thought they were intervening in the civil war in Libya in 2011 merely to avert a humanitarian crisis in Misrātah and elsewhere, the situation morphed into something much more demanding, which has yet to be resolved.

Mahan and Corbett do not seem to have much guidance to offer on such matters, because the focus of their thought was largely on higher-intensity operations, although they were perfectly well aware of the requirement for, and the potential challenge of, lower-intensity ones. They assumed that once a navy's major high-end tasks were dealt with satisfactorily, the rest could look after itself. But now the "rest" quite often has become the major focus of concern.

This is because today's situation has become more volatile, uncertain, complex, and ambiguous (VUCA, for short!), partly because some of today's leading states want it to be, and so pursue "a multidimensional and multidisciplinary strategy that consciously blurs the classical distinctions between warriors and non-combatants, front and rear, peace and war, state and proxies, and fact and fiction; and which employs a variety of tools—military technology and operations, information and cyber, economic pressure, ethnic bridgeheads and sensitivities—in order to manipulate both rival societies and [the states'] own."[7] Although such techniques are certainly not new, the extra attention they warrant today creates an ambiguous, confusing, and, frankly, potentially demoralizing situation. But if understood, they provide opportunities as well as challenges.

So how can the study of past events in naval history, as part of a well-rounded package of PME, possibly help navies prepare for the issues they will face? We will look at this from two different angles: naval history as a quarry of potentially

relevant data and—arguably more important, especially these days—naval history as an intellectual process.

THE POWER OF EXAMPLE FROM THE PROCESSED PAST

History is processed experience. Naval history is a source of innumerable examples of the way things have been done in the past. For all the historians' reluctance to think of the lessons of history, or even their norms, the past is a source of previous experience that might well help present practitioners in comparable but not identical situations to understand their problems better and to think through what they should do to solve them.[8] Although, as frequently has been said, history does not repeat itself—it rhymes.[9] As Michael Howard reminded us back in 1962, there are patterns: "Wars still resemble each other more than they resemble any other human activity."[10] Naval professionals, arguably, should know those patterns, but in their search for what the Russians call the "norms" of military experience, or what they generally should expect, it is vital that they also should spot the differences as well as the similarities between their situation and perhaps only superficially similar ones in the processed past.

Looking at something such as the sinking of the Royal Navy's *Prince of Wales* and *Repulse* off Malaya by Japanese aircraft in December 1941, for example, teaches us all sorts of things about the need for interservice cooperation, sustainable balances between resources and commitments, not underestimating your adversary, and so on. For all its dangers, not least the evident danger of mythmaking, there is much to be said for the simple notion of seeing the past as providing previous examples of the problems of the present and future.[11] Such historical case studies are also ideal means for advancing understanding by way of counterfactual questions: What would have happened, for example, if the British in the autumn of 1941 had sent hundreds of tanks and aircraft to Singapore instead of to Russia? Why didn't they?[12]

The point also can be exemplified by reverting to the problems of naval procurement already discussed. While the past is indeed another country, today's planners in the defense procurement field are facing problems and issues that are not that dissimilar from those faced by their predecessors. Those responsible for the design and procurement of today's *Queen Elizabeth*–class aircraft carriers in the United Kingdom hardly can fail to have been aware of the demoralizing experience of their predecessors in the 1960s. This second time around, at the broadest level, the needs to be sufficiently clear about the projected roles of the ship, to keep unavoidable interservice competition down to manageable limits, and not to get too far away from what would seem to be financially viable in the circumstances of the time all seem to have been hoisted in.[13] The difficulty of their task, though, clearly provides an incentive for growing the smart customer, and it is hard to avoid the

conclusion that study of the way in which such difficulties were handled in the past will provide at least some guidance for the present and the future.

Another area in which history as processed experience—a source of example—can be argued to have something to offer is in leadership. Leadership, of course, varies enormously in its character and its function. On the face of it, the kind of leadership required to command in battle is not necessarily the same as that required to lead a design team in a submarine-acquisition project or to run a shore establishment. But is that true? Again, looking at past examples of these kinds of leadership at the very least should encourage discussion and increase understanding of this otherwise very slippery concept.[14] In short, looking at previous examples of a campaign, problem, or issue enables people at least to ask the right questions and so to develop a broader understanding. It cannot be said too often that the dissimilarities between the past and present cases are likely to be at least as important as the similarities in this process.

One of the reasons for this is the crucial role of the broader context in determining outcomes. For this reason, Michael Howard emphasizes the importance of studying history in context as well as in width and depth.[15] Naval history can be a powerful way of reminding professionals of the importance of context, so it should be designed to encourage them to take a wider view of the impact of the international, technological, social, and financial backgrounds to their operations. "Was the Gallipoli campaign of 1915 lost on the beaches of the peninsula or around the conference table in London?" is the sort of question that, as historians, we should be getting students to think about if they are to understand not only the purpose, planning, and conduct of operations but the management of defense more widely. Getting people to look above the parapet and not to be focused exclusively on the all-too-demanding problems of their part of the ship (to meld a few analogies, in the spirit of jointness) is, or should be, an essential objective of PME.

As an aside, it is also hard to think of an approach better designed to encourage reflection about the three levels of war—tactical, operational, and strategic—and the manner in which they interact. Encouraging students to track the consequences of the strategic decision-making process in London all the way down to the deficiencies in preparation on the landing beaches of the Gallipoli Peninsula (such as the lack of sufficient medical facilities, water supply, and so forth) and then to follow the tactical consequences back up through the hierarchy of decision to those ultimately responsible for making strategic-level decisions hardly can fail to help develop a more rounded understanding of military operations.

The list of areas like this in which naval history as processed experience can provide helpful examples for constructive reflection by today's warriors of course could go on almost indefinitely, but there's also another aspect to history as a quarry

of illustrative, if not explanatory, material to be noted. That aspect is to consider the past as prologue to the present, and maybe to the future, too.

History helps us to understand the context and explains how we have arrived at where we are today, and therefore it also helps us to understand the present rather better, and from that to design sustainable policies for the future.[16] Take, for example, the increasingly contentious issue of the historic freedom of navigation for warships. Naval activity is, and always has been, framed by contemporary interpretations of the law, and vice versa; understanding the background to those changing interpretations is an essential part of the professional sailor's intellectual kit bag. Or at least it should be, if sailors are to hold their own in the expressions of differences of opinion at sea and in the defining of operational priorities. Arguably, the ability to comprehend, to deploy, and to make use of the law of the sea has become an ever-more-crucial component of twenty-first-century sea power. At all levels of command, understanding its development and its importance confers advantage.

At the moment, some aspects of this remain matters of contention as the U.S. Navy and other Western navies try to defend the basic notion of freedom of navigation against what they see as a continentalist tide that is seeking, in effect, to territorialize the sea by insidiously claiming more and more jurisdiction over what once was regarded uniformly as the high seas. This has given rise to a host of regrettable incidents. All concerned in the matter of freedom of navigation, most particularly of warships, really need to understand the issues—what's at stake, in other words—and how this situation has arisen.

Knowing what the United Nations Convention on the Law of the Sea says, for example, about the rights of warships in others' exclusive economic zones is not enough, because the wording of the convention (being a political bargain) has enough ambiguity in it to allow (just about, and at a stretch) different interpretations—and there are strong operational and emotional reasons why some countries seek to exploit, or even ignore, vague or unhelpful provisions of the pact altogether. International law, after all, is nothing more than a set of political agreements that apply to a certain time and place, and is in any case susceptible to change through subsequent state practice. As one of its leading experts has remarked, "The history of the law of the sea has been dominated by a central and persistent theme—the competition between the exercise of governmental authority over the sea and the idea of the freedom of the seas. The tension between these has waxed and waned through the centuries, and has reflected the political, strategic, and economic circumstances of each particular age."[17]

For this reason, simply knowing and enforcing the law are not enough. What navies ought to be doing as well is not just pontificating about what they think the law says on freedom of navigation for warships but explaining why upholding it is

a good thing for everyone. This task cannot be left to lawyers alone. Only naval history can show us exactly why this apparently arcane principle is important enough to risk lives for, and all concerned need to know it, not least those whose lives might in the present or future be in question because of it.

The same kind of developmental approach can be applied, of course, to all other aspects of sea power, in which knowing how we got to where we are provides probable guidance to where we should go next; although sadly, but perhaps inevitably, lessons identified are not necessarily learned. This approach also has been lampooned by skeptics who liken it to trying to drive down a twisting country road while peering through the back window of the car. This overstates the point. The truth is that when driving, while we look through the front windscreen most of the time, it's good to keep an occasional eye on the rearview mirror as well.

Christopher Andrew, the historian of the British Security Service, has drawn attention to the lamentable consequences of such people not knowing their own history and identifies what he calls a "historical attention-span deficit disorder" (HASDD, for short) as the root cause of the problem. Hal Brands and William Inboden recently have done the same for those who would practice statecraft, arguing the unwisdom of neglecting "a fount of information and insight for leaders grappling with the challenges of statecraft in a messy world." But this argument should not be overdone either, for all but the most obsessive of historians would admit that history isn't the *only* thing that matters.[18]

NAVAL HISTORY AS AN INTELLECTUAL EXERCISE

The second angle on the value of naval history for PME is not as a quarry of data, material, and example, but more as an intellectual discipline that encourages the development of thinking and of analytical, and very possibly behavioral, skills that should help make naval professionals smarter. As a former commandant at the U.K. Joint Service Command and Staff College (JSCSC) used to say, the modern airman, soldier, and sailor have to respond to perhaps unprecedented levels of strategic ambiguity. They have to improvise creatively, as jazz musicians do around a central theme, responding dynamically to changes set by others and to the effects of contingency, chance, and general chaos. No more can they fall back on the laboriously choreographed musical scores set by the kind of constantly rehearsed operational plans that characterized, for example, the Cold War.[19]

Instead they have to be prepared for surprise; as Mike Tyson once graphically remarked, "Everyone has a plan until they get punched in the mouth."[20] Hence the need for what is described gruesomely as the end state of a student at the JSCSC: "to have developed a mind that is flexible and able to analyse and conceptualise in a military context in order to make timely and logical decisions in all types of subsequent appointments."[21]

To cope with a complex and often bewildering future in which you easily can get punched in the mouth by unexpected events, those students will need the capacity to analyze incomplete and ambiguous data. They need to be able to think through problems and their consequences, and, most importantly, to keep thinking them through, long after their staff course, or indeed their latest operation, has ended. They need to be independent learners. Some at least of what is taught in a one-year staff course certainly will have a limited shelf life, because the world moves on. Accordingly, students have to be encouraged to develop the independent interest and the habits of thought and of continuing inquiry that animate the best historians. This helps produce that very necessary characteristic that some would call insight.[22] This can, and should, include as a "golden thread" a continuing interest in the naval past and its developing relationship with the naval present and the naval future.

Charles Darwin indeed reminds us that it was not necessarily the strongest but the most adaptable that won the evolutionary race. Naval history helps develop an openness of mind to uncomfortable ideas that confound and upset one's own emerging conclusions. This really amounts to an early acceptance of the notion that there is no final and complete answer to anything. To paraphrase Napoléon, we have to tie knots and carry on, always progressing hopefully to what some have called a higher level of ignorance.[23]

In this, naval history can help, or maybe it should help, elevate thinking from the empirical to the conceptual—from the concerns of the tactical, technological nitty-gritty of yesterday's or today's battle to that wider, shaping context that links the levels of war and conflict. All the same, both the empirical and the conceptual are necessary parts of the mix. We should not, however, allow the perpetual fascination with the drums and smoke of battle to obscure the more-abstract realities that in many cases determine outcomes. Naval history, in short, can and should help us understand the critical business of strategy and policy making.[24]

Using history in this way is a much more widely practiced activity than is often realized. By the time strategists and policy makers have reached such elevated positions, they have engaged with history, absorbing views about the relevance of the past, even if only through a process of osmosis. Either consciously or unconsciously, they use history as a guide for how to think about future policy in a whole variety of ways.[25] The design teams developing the Royal Navy's Type 26 global combat ship or those responsible for shaping a navy's training programs cannot insulate themselves from the past, however hard they may try. They adapt and adopt its conceptual consequences as they both reflect and help create strategic thinking, in a continuous iterative cycle of reflection and action. It is quite likely that in many cases they do not realize they are doing it! Internet bloggers and the young naval enthusiasts who come together to create online think tanks such as the Center for International Maritime Security, on the other hand, do so quite consciously, aiming

to study the past as a guide to the future, and their influence undoubtedly will seep out in all directions. History, in short, is unavoidable, and it shapes not just conclusions but also approaches and ways of thinking. The real question is not whether to admit its relevance to today's problems but how to make the best use of it.

For all that, unfortunately, a sizable constituency of thought in the United Kingdom felt bound to react to what they considered to be Britain's frankly embarrassing Strategic Defence and Security Review (SDSR) of 2010 with the fear that the country was no longer capable of "doing" strategy, or even thinking about it constructively—an impression apparently confirmed, in their minds at least, by the experience of the later stage of the second Iraq and Afghanistan wars. This concern was triggered initially by the Royal United Services Institute address of December 2009 by the outgoing Chief of the Defence Staff, Air Chief Marshal Sir Jock Stirrup, in which he claimed that Britain had lost the habit of making strategy.

> But one thing that's struck me in my present role, and that I think requires urgent action over the next year, is the degree to which we seem to have lost an institutionalised capacity for, and culture of, strategic thought. I'm not saying that we don't have people who can think strategically, or that we haven't evolved a proper strategic basis for our actions. But we've seized on ability where we've found it, and as a result our formulation of strategy has been much harder than should have been the case. We've been hunter/gatherers of strategic talent, rather than nurturers and husbandmen.[26]

It was followed up through a series of inquiries by the House of Commons Public Administration Select Committee and highly critical articles from a large number of academics. Their concerns were reinforced by the uncertain consequences of Britain's engagement in the Iraq and Afghanistan wars. The suggestion was that the United Kingdom had not thought through what its involvement in these wars was supposed to achieve, nor the requirements or likely consequences of this involvement, largely because it had lost the habit of consulting the rearview mirror and developing the agnostic and questioning ways of thought that develop from that. Did anyone ask for evidence that Britain's intervention in the intense factionalism of Afghanistan would be any more successful this time than it had been the first, second, and third times that Britain had tried it?[27]

While the urgency of the need to cut government expenditure and to require the Ministry of Defence to start filling in the "black hole" in its finances perhaps offers some excuse for the failings of the SDSR, this is less true of Britain's operational failings. These are hard to explain except in terms of the speed of events to which the United Kingdom felt it must respond (allowing insufficient time for consultation and strategic reflection) and, perhaps, the lack of defense experience among the political class. Nor is the quality of the advice that the military offers to ministers exempt from academic and insider criticism.[28]

Nor, sadly, is this inability to do strategy all that uncommon. A good case can be made that it applied to the Germans and especially the Japanese in the Second

World War; they managed to combine tactical and operational brilliance with a strategic insouciance in a manner that now appears quite breathtaking. The point is that failing to take full advantage of what the historical approach has to offer means missing a chance to reduce the prospects of strategic failure.

But once again, how, more exactly, can history help? Such help probably lies much less in the delivery of the facts, or answers, and prescriptions for the future than in identifying the questions about strategy that those conducting it, or those trying to understand it, should ask. A brilliant recent review of four very good books about the causes of the First World War (a subject one might think conclusively studied for a century now) found that "they [did] not even come close to agreeing . . . [and that] historical consensus on the causes of the First World War appears no closer than it was 50 or 75 years ago, nor does it appear a shared view will ever be achieved. . . . This means we must be both cautious and humble when generalizing about war and peace and making policy recommendations based on our understanding of the conflict."[29] Much the same, if on a less elevated plane, still could be said about interpretations of the course and consequence of the Battle of Jutland and a host of other such familiar naval subjects. The Dutch historian Pieter Geyl made the essential point that "history is argument without end."[30] But this is not an apology. In the training it provides for the kind of intellectual dialectic of argument and counterargument that deepens understanding, history makes a major contribution to our capacity to analyze.

Lawrence Freedman, in his recent magisterial book on strategy, makes a similar point.[31] The intrinsic diversity and ambiguity of our subject—the conduct of military operations, not least at sea—mean that it is very easy to get things fundamentally wrong, but it is sadly hard to get them right, and harder still to achieve an overall consensus on what is right and what is wrong. Analyzing past examples to see whether we can work out why some things went well and some did not at least should identify the questions that we, or anyone else trying to do strategy or to make policy in the naval realm, should be asking. In this, the process of naval history—the asking of questions, the analysis of data, and the testing of hypotheses—is more important than the product, the answers. Making the journey, in other words, can be more useful than arriving at the destination. This is what Dwight D. Eisenhower meant when he famously observed regarding preparing for battle, "I have always found that plans are useless, but planning is indispensable."[32]

TRUTH DECAY

There is now—in the age of all-pervasive social media—one final justification for naval people to have more than a passing familiarity with the disciplines of naval history. That is the contemporary phenomenon of what some have called *truth decay*.[33] By this they mean the impact that easy accessibility to and the potentially overwhelming power of social media is having on people's trust in authority and

in traditional forms of expertise. Imperfectly controlled, this platform empowers cranks, bigots, and those who willfully would deceive by according them the same apparent status as experts. "Don't you see," asks one of the characters in George Orwell's novel *1984,* "that the whole aim of Newspeak is to narrow the range of thought?"[34] It is increasingly difficult for people, deluged with showers of contradictory information, deliberate misinformation, fake news, and conspiracy theories, to know what to believe, which encourages them to fall back on that very human trait of believing what they want to believe and forming up into dissonant tribes, unable to relate to, or even understand, the others.

Collectively, this threatens the social order. Some would go further: "We are facing nothing less than a crisis in our democracy based on the systematic manipulation of data to support the relentless targeting of citizens, without their consent, by campaigns of disinformation and messages of hate."[35] In the words of the recently released European Union code on dealing with disinformation, "open and democratic societies depend on public debates that allow well-informed citizens to express their will through free and fair political processes."[36]

As citizens, naval personnel and navies in general are as vulnerable to this as any other social group—perhaps more so given their generally very high level of computer literacy and the stringent time demands of their profession. As ordinary citizens, they too have an interest in the general well-being of the society in which they live and that they try to protect against more-traditional forms of threat. Moreover, whether they like it or not, they are living in a world of competing narratives than can often be state directed.[37]

Illustrating the point, in 2009 the Kremlin established the "Commission to Prevent the Falsification of History to the Detriment of Russia's Interests" to counter Baltic and central European narratives about Soviet occupation and wartime collaboration.[38] For its part, Singapore has established a "Select Committee on Deliberate Online Falsehoods," thinking it is important to support social cohesion by cultivating an informed public and encouraging a culture of fact-checking.[39] Staying afloat in this whirlpool of conflicting currents requires a continued capacity for independent judgment. Navy people (whose basic job is to defend the states and the societies that pay for those navies) also may be thought to have an even greater incentive than ordinary citizens to be at least aware of, and ideally able to help to defeat, these insidious challenges to domestic stability.

Moreover, navies themselves are vulnerable to such campaigns of targeted disinformation. Their missions and activities can be traduced by adversaries, with deleterious impacts on public esteem and their operational effect.[40] More sinister and dangerous still, sailors—often living a tight shipboard life, even ashore—always have proved vulnerable to the effects of uninformed gossip. In these continuing circumstances it is easy to imagine the possibilities of greater access to social media

morphing into a kind of mega-scuttlebutt, with possibly disastrous consequences for a navy's cohesiveness and morale. For the same reason, this could be a significant target of opportunity for imaginative adversaries, both foreign and domestic. Thus, it does not seem unreasonable for navies to regard this possibility as a new battleground for them to take seriously.

Once again, how might a familiarity with naval history, both as processed experience and as an intellectual discipline, offer some modest help against these potentially ominous developments? It will be modest, because in an age when most people get their news from Facebook and Twitter feeds, and in which traditional journalism may well be in terminal decline, this is a fundamental problem way beyond easy solutions.[41] But nonetheless, for naval personnel, history may help a little. First, perhaps history can show that this is an old, almost-familiar problem, now reappearing in a new and potentially more virulent form. This could be done, for example, by looking at the role of misinformation in naval mutinies and other such disasters, as a way of alerting naval personnel to the dangers they confront, and maybe to ways of dealing with them—or even employing them against their adversaries.[42]

More importantly, perhaps, the discipline of history itself encourages open-mindedness, the careful weighing of evidence, and the asking of questions, and it provides other such intellectual defenses when confronted with purported information and what very well could prove to be fake news. Any kind of serious study could serve this function, of course, but naval history is more accessible and, for other reasons discussed earlier, is especially relevant to the naval profession.

While much of what has been said may be true for all disciplines and subject areas and for all types of history, for national leaders, strategic decision makers, and operational commanders, the obvious salience of specifically naval history for sailors, given the undeniable continuities of operations at sea over the centuries, means naval history is particularly useful in this regard. Moreover, for sailors at all levels, naval history, whether conscious and constructed or not, is unavoidable. Whatever historians might think of it, naval students, strategists, and policy makers will go on using what they at least think is history as a guide to future behavior.

This being the case, it lays considerable responsibility on naval historians. First, as John Hattendorf has reminded us, historians need to recognize that their subject does not end in 1945 or with the closing of the Cold War (assuming that conflict has even ended!).[43] History is yesterday as well. This poses unavoidable evidential problems. Analysis, therefore, has to be preceded by the availability of primary material. In any case, much of what in the past would have produced survivable paper copies (or much less survivable photostats) now appears only as transitory e-mails, exchanges in chat rooms, and so on. Since "recovering the unrecorded past" is at

least as important as it was, tomorrow's historians and their naval students will need their twenty-first-century skills as well as the more traditional ones employed by yesterday's historians.[44]

Second, historians need to encourage their navies to be receptive to the past, to preserve and process the records (or what these days passes for records) of what they have done to build a bank of experience for the future. They need to nurture those veterans who actually had that experience and are willing to talk about it, if they only had the encouragement to do so. The results of this testimony need to be preserved in accessible form and made available for appropriate use. Today's practitioners need to know that something similar to their current preoccupations probably has happened before.[45]

Third, historians need to encourage thinking about things in the round: paying due regard to context and avoiding narrow fixations on monocausal explanations. They need to understand the technological and logistical realities of what it is actually like to be at sea—hence the particular value of ex-sailors who are also historians. They also need to avoid unconscious hindsight and to sympathize with their subjects, who clearly could not enjoy its advantages.

Fourth, they need to ensure that what they deliver is accessible, interesting, and even enjoyable. My experience at a variety of service educational establishments is that naval students usually do rather enjoy doing naval history—or at least freely concede that they found that engaging in a modicum of historical research was worthwhile. In this, historians are likely to be pushing on an open door; at the very least, they should do everything possible to stop it from shutting. One way of doing this is to ask the speculative "What if?" counterfactual questions referred to earlier. The process of isolating and altering one variable in the historic equation invites speculation about the difference it could have made to some past and completed event, and often will stimulate both insight into and enthusiasm for the subject.

Finally, they should make their subject policy relevant, wherever possible. For some this will be difficult. Some historians, knowing how their findings can be distorted to suit a different time, seek—for the best of professional reasons—to insulate their discipline from the contaminating fingers of strategists and policy makers and would have nothing to do with their world. However understandable, this purist approach is unwise for all but a few keepers of the sacred flame.

The pressure of other urgent PME requirements means the default position of those responsible for its implementation is all too likely to reduce the teaching of history as much as possible. The long and generally depressing story of the Royal Navy's neglect or misuse, or both, of its own really rather spectacular history (and its sometimes dire operational consequences) unfortunately illustrates the point.[46] Historians need to counter this modernist tendency to the extent they can.

In sum, history, similar to the poor and taxes, is always with us, whether we like it or know it or not. We cannot avoid it. This being so, it is plainly the duty of naval historians to do their best to ensure that what they deliver is valid as both processed experience and an intellectual discipline. They owe this to the future as much as to the past.

NOTES This chapter appeared as an article in the *Naval War College Review* 72, no. 4 (Autumn 2019), pp. 5–20.

1 Glenn Davidson [VAdm., Canadian Maritime Command], "After the War—Canada's Navy Post 1945," *RUSI Journal* 152, no. 3 (June 2007), p. 88.

2 It needs to be said that many of these issues also apply to the other services and to many other agencies of the state.

3 U.S. Army Dept., *Army Support to Security Cooperation,* FM 3-22 (January 2013), p. 3-1.

4 For a U.S. view on this subject, see Scott D. McDonald, Brock Jones, and Jason M. Frazee, "Phase Zero: How China Exploits It, Why the United States Does Not," *Naval War College Review* 65, no. 3 (Summer 2012), pp. 123–35.

5 Thomas Rowden [RAdm., USN], "Building the Surface Fleet of Tomorrow," U.S. Naval Institute *Proceedings* 140/1/1,331 (January 2014).

6 Ken Hambleton, Ian Holder, and David Kirkpatrick, "Ten Chronic Challenges in UK Defence Acquisition," *Defence Studies* 13, no. 3 (September 2013), pp. 361–71.

7 Ariel E. Levite and Jonathan (Yoni) Shimshoni, "The Strategic Challenge of Society-centric Warfare," *Survival* 60, no. 6 (December 2018), pp. 91–118.

8 Michael Howard, *The Lessons of History* (Oxford, U.K.: Clarendon, 1991), chap. 1.

9 A remark often attributed to Mark Twain—probably incorrectly.

10 Michael Howard, "The Use and Abuse of Military History," *RUSI Journal* 107 (February 1962), pp. 4–8.

11 Ibid.

12 Paul Schuurman, "What-If at Waterloo: Carl von Clausewitz's Use of Historical Counterfactuals in His History of the Campaign of 1815," *Journal of*

Strategic Studies 40, no. 7 (November 2017), pp. 1016–38.

13 No doubt, once the records have been made available future historians will be engaging in exercises in detailed contrast and comparisons between these two case studies!

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15 Howard, "The Use and Abuse of Military History."

16 John B. Hattendorf, "The Past as Prologue: The Changing Roles of Sea Power during the Twentieth Century," in *Talking about Naval History: A Collection of Essays,* Historical Monograph 19 (Newport, RI: Naval War College Press, 2011), p. 272.

17 D. P. O'Connell, quoted in James Kraska, *Maritime Power and the Law of the Sea: Expeditionary Operations in World Politics* (Oxford, U.K.: Oxford Univ. Press, 2011), p. 1.

18 Christopher Andrew, "Intelligence Analysis Needs to Look Backwards before Looking Forward," *History and Policy,* June 1, 2004, www.historyandpolicy.org/; Hal Brands and William Inboden, "Wisdom without Tears: Statecraft and the Uses of History," *Journal of Strategic Studies* 41, no. 7 (2018), pp. 916–46.

19 Brian Burridge [Air Vice-Marshal, RAF], "Postmodern Military Education: Are We Meeting the Challenge?," *Defence Studies* 1, no. 1 (Spring 2001).

20 Quoted in Lawrence Freedman, *Strategy: A History* (Oxford, U.K.: Oxford Univ. Press, 2013), p. 238.

21 Unsurprisingly, this is closely in line with the definition of *understanding* to be found in successive versions of U.K. Joint Doctrine Publication 04 (JDP 04), sec. 2-1, available at www.gov.uk/.

22 Spartacus, "Command and Leadership: A Rational View," *British Army Review* 106 (April 1994).

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24 Lukas Milevski, "Revisiting J. C. Wylie's Dichotomy of Strategy: The Effects of Sequential and Cumulative Patterns of Operations," *Journal of Strategic Studies* 35, no. 2 (April 2012), pp. 223–42.

25 These have been explored thoroughly by William Inboden in "Statecraft, Decision-Making, and the Varieties of Historical Experience: A Taxonomy," *Journal of Strategic Studies* 37, no. 2 (2014), pp. 291–318.

26 Sir Jock Stirrup [Air Chief Marshal, RAF], "Chiefs of Staff Lecture at the RUSI" (December 3, 2009), available at www.rusi.org/.

27 This is not to suggest that Britain's intervention was wrong, merely that its requirements deserved greater consideration, and that knowing a bit of history might have helped.

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29 Francis J. Gavin, "History, Security Studies, and the July Crisis," *Journal of Strategic Studies* 37, no. 2 (2014), pp. 319–31.

30 Quoted in Robert Dallek, *Franklin D. Roosevelt: A Political Life* (New York: Viking, 2017), p. 623.

31 Freedman, *Strategy,* p. 104.

32 Quoted in William W. Blair, "President Draws Planning Moral," *New York Times,* November 5, 1957.

33 Michiko Kakutani, *The Death of Truth* (London: William Collins, July 2018).

34 George Orwell, *1984* (London: Secker & Warburg, 1949).

35 Damian Collins, Chair of the House of Commons Select Committee on the Digital World, Culture, Media, and Sports, quoted in *The Guardian,* July 30, 2018.

36 Quoted in Paul Chadwick, "This Fake News Crackdown Could Be an EU Gamechanger," *The Guardian,* October 1, 2018.

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38 Angela Stent, review of *The Long Hangover: Putin's New Russia and the Ghosts of the Past,* by Shaun Walker, *Survival* (August–September 2018), p. 193.

39 Stephanie Neubronner, "Select Committee on Deliberate Online Falsehoods: After the Recommendations; Now for the Hard Part," *RSIS Commentary,* no. 160 (October 2, 2018), available at www.rsis.edu.sg/.

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41 Alan Rusbridger, *Breaking News: The Remaking of Journalism and Why It Matters Now* (London: Canongate, 2018).

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43 John B. Hattendorf, "Strategy, Tactics, and Leadership: The Legacy of Trafalgar in Professional Naval Thought around the World," in *Talking about Naval History,* pp. 137–38.

44 Lord Acton, *Lectures on Modern History* (London: Macmillan, 1930), p. 349; Geraint Hughes, "Iraqnophobia: The Dangers of Forgetting Operation TELIC," *RUSI Journal* 157, no. 6 (December 2012), pp. 54–60.

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46 For an excellent summary of this, see Dr. Harry Dickinson, "Teaching Naval History," in *Dreadnought to Daring: 100 Years of Comment, Controversy and Debate in the* Naval Review, ed. Peter Hore (Barnsley, U.K.: Pen and Sword, 2012), pp. 284–98.

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